

Appendix C

Agency Consultation

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General Correspondence

From: Muriel Kim
Sent: June-11-12 5:23 PM
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Cc: 'shodsoll@xeneca.com'; Tami Sugarman; Karen Fortin
Subject: Notice of a Public Information Centre – Xeneca's proposed Blanche River waterpower development
Attachments: Marter PIC Ad - June 27 - French.pdf; Marter PIC Ad - June 27.pdf

Good afternoon,

This is to notify you that Xeneca will be hosting a public information centre (PIC) for its proposed waterpower development on the Blanche River (Marter Township) in Englehart on June 27, 2012. The PIC will be held at the Englehart Community Hall from 4:00 p.m. to 8:00 p.m.

The advertisement for the PIC will be printed in local media on June 15 and June 20 in both English and French. Copies of the advertisement are enclosed.

Members of the project team will be on hand for the event to provide information on the project and to answer questions from the attendees.

Should you require additional information about the PIC, please contact:

Stephanie Hodsoll
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From: Muriel Kim
Sent: July-24-12 10:55 AM
To: 'kelly.egggers@dfo-mpo.gc.ca'; 'stephanie.davis@ceaa-acee.gc.ca'; 'lisa.mcdonald@tc.gc.ca'; 'EACoordination_ON@inac-ainc.gc.ca'; 'katherine.hess@hc-sc.gc.ca'; 'sheryl.lusk@ec.gc.ca'; 'Caitlin.Scott@NRCan.gc.ca'; 'tina.webb@ontario.ca'; 'shaun.walker@ontario.ca'; 'gerry.webber@ontario.ca'; 'jennifer.lillie-paetz@ontario.ca'; 'brett.smith@ontario.ca'; 'David.Pickles@ontario.ca'; 'paul.marleau@ontario.ca'
Cc: Tami Sugarman; Kai Markvorsen
Subject: Proposed Blanche River waterpower project – Upcoming distribution of the DRAFT Environmental Report

Good afternoon,

We will soon be distributing the DRAFT Environmental Report (ER) for the proposed Xeneca Power Corporation Inc. waterpower development on the Blanche River (Marter Township).

The proposed undertaking is subject to the Class Environmental Assessment for Waterpower Projects as a new project on a managed waterway. While there is no formal requirement for a draft ER in the Class EA for Waterpower Projects, this document will be circulated to key parties in order to facilitate an efficient regulatory review of the final document.

We would like to confirm that you continue to be the appropriate one-window contact at your organization, and whether there are additional individuals within your organization whom you believe should also receive a copy of the draft ER. We are planning to distribute one hard copy and one CD-ROM to each regulator on our contact list; please let us know if you would like to receive additional copies, or if only one form of the report (hard copy or CD-ROM) would suffice.

I will follow up this message with a phone call within the next couple of days to confirm your participation in the review process.

Best regards,
Muriel Kim

WESA Muriel Kim M.Sc.
Environmental Scientist
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NOTE: If you are not the intended recipient of this e-mail, please delete it immediately. Unauthorized transmission of this e-mail is prohibited.

From: Stephanie Hodson <SHodson@xeneca.com>
Sent: March-27-13 4:52 PM
To: White, Rosanna (ENE); Walker, Shaun (MNR); Kelly.eggert@dfo-mpo.gc.ca
Cc: Uwe Roeper; Mark Holmes; Karen Fortin; Muriel Kim; ormgkb@ormg.org; Nava Pokharel
Subject: Response to Agency Comments on Marter Geomorphology Report
Attachments: Response to Agency Comments_Marter Geomorphology Report_PGL and Xeneca Response_26march13.pdf

Good afternoon everyone!

Nava has worked with Parish (PGL) to respond to your questions, comments and concerns regarding the Marter geomorphology report.

Please see the attached PDF and feel free to circulate it as required.

If you would like more clarity on any issues, please let us know and we can set up a phone call with yourself, Xeneca and Parish.

Cheers,
Steph

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MARTER TWP. GEOMORPHOLOGY REPORT: XENECA'S RESPONSE TO AGENCY COMMENTS

1. Xeneca's Response to MNR's Main Concerns

- a. Potential for large scale river valley failure and smaller scale river bank failure, into the Blanche River, due to the dominant clay, silt, and sand overburden. Clay has unique properties and is susceptible to catastrophic failure if saturation conditions are just right. (Examples – sensitive clay landslides in the South Nation River: 1971 & 1993, Eden et al., 1971; Brooks et al., 1994). We are uncertain as to whether or not the “clay belt” clays are susceptible to similar kinds of saturation and failure but this should be further investigated.

Xeneca's response: There is some potential for valley wall failure (R8), based on field observations and historic air photos. That said, it is more of a geotechnical issue than a river process, as the role of hydraulic erosion of the toe is minimal. The more of failure would likely be related to changing the pore water pressure and sudden change in loadings on the base of the slope. The area of concern however is downstream of the headpond. The area of headpond inundation did not display any existing or past evidence of valley wall adjustments.

- b. The suspended sediment concentration in the Blanche River is high and there is mention of potential infilling of the proposed Marter headpond but this is only qualitatively discussed. This should be more formally investigated.

Xeneca's response: Agreed. That said, there was little field evidence of fine sediment movement or deposition.

- c. The Zone of Influence extends beyond the confluence with the Misema River. This fluvial geomorphology work should be extended downstream to coincide with the defined ZOI downstream of the proposed G.S.

Xeneca's response: After recent meetings with MNR and Agencies, Xeneca has proposed to operate the Marter Twp. project around Misema GS operations. In other words, Marter Twp GS will be operated in peaking mode only when the Misema GS is not operating.

The existing water level fluctuations due to Misema operation just downstream of Blanche and Misema rivers confluence is as high as 50 cm in the existing conditions due to Misema operation. Xeneca has committed to not to make the water level fluctuations worse than the current conditions. Therefore, the geomorphic assessment downstream of Misema River confluence is not required.

2. Xeneca's Response to MNR, MOE & DFO Comments/Questions

Made By:	Comment:	Page:	Xeneca's Response:
MNR	<p>In the Executive Summary, it states in the 6th paragraph that “very few signs of channel instability were observed during the field reconnaissance, ...”. MNR staff have traveled the Blanche River from the Misema river confluence up to bedrock chute and noticed some very large scale channel and valley instability within this 1.7 km stretch. This included at least one very large valley slump scar, and a number of smaller river bank slumps and failures into the channel. In one instance a tree was still partially standing on slumped material in the channel. This is a major concern and channel stability seems questionable due to these slope failures ... as noted in the report “landslide scars were observed along the valley wall, but they appeared to be linked to hill slope activity, as opposed to channel adjustment.” (Photos are included)</p>	1	<p>The signs of instability were reaches based and including elements of widening, degradation, aggradation and planform adjustment. The signs of the valley/slump scar were observed and noted. On the whole, the reaches were deemed to be stable. Reach 7 did have higher scores associated with this local erosion. This erosion though was and is more a product of geo-technical slope stability issues than hydraulic toe erosion.</p>
MNR	<p>In the Executive Summary, 7th paragraph, the report states “Sediment will also likely fill the headpond at the upstream end and immediately upstream of the dam.” How much sediment and at what rate is it expected to fill the headpond? Will this affect the life of the proposed G.S.? This is a key concern.</p>	2	<p>Actual loads were not determined. Given the modified run-of-the river approach, the settling time in the headponds would not be much higher than in the existing deadwater area. The extent of fine sediment accumulation in these existing deadwater areas was not high. Thus, while some additional sediment accumulation from the suspended load will occur, it is not felt to be large nor affect the operation of the proposed G.S.</p>

Made By:	Comment:	Page:	Xeneca's Response:
MNR	<p>In Section 2.2 Proposed Conditions, at the end of the 1st paragraph, the report states “The anticipated zone of influence of the operational facility on the downstream waterway is 2 km to the Misema River.”</p> <p>The proponent now believes the ZOI will extend to the confluence of the Englehart River and discussions are still ongoing as to whether this extent is sufficient to capture the proposed facility’s ZOI. As such, extending the fluvial geomorphology study to at least the Englehart River is warranted.</p>	3	<p>The project downstream ZOI has been identified as to confluence of Englehart River but as explained above with the proposed new operation around Misema GS operation, the conditions downstream of Misema will not be different from existing conditions. For geomorphic assessment study of headpond and in downstream to confluence with Misema river should be sufficient.</p>
MNR	<p>In Section 2.2 Proposed Conditions, 2nd paragraph. The facility will be a peaking system. The Marter site will only be operated as a run-of-river during spring freshet flows and during very low flows when all incoming flow will have to be spilled to provide a Q_{EA} (environmental flow). Regulated rivers need hourly flow data to clearly understand their operation. The statement “the amount of water passed through the facility over a period of several days is equivalent to the natural run of the river flows” may be true, but it will not capture the daily peaking and ramping that will control any change in channel morphology and sediment transport in the Blanche River below the proposed dam site.</p>	3	<p>Agreed. The assessment completed though does provide insight on the performance and implications to the river and sediment movement.</p> <p>The amount of water passed through the facility in any given day is equivalent to the natural run of the river flows not over the several days as mentioned in the draft report. This will be corrected in the final document.</p>
MNR	<p>The flows summarized in Tables 2.1 & 2.2 look good. Are the Extreme Low Flows 7Q20 flows?</p>	3	<p>These tables were extracted from project hydrology reports. The 7Q10 flow for Marter Twp project is estimated to be 1.39 (m³/s).</p>
MNR	<p>The “old landslide scars” mentioned in Section 2.4 Physiography section are a great concern, and indicate massive slope failures into the Blanche River in the vicinity of the proposed dam site. Could you hypothesize the effects of such a failure if it happened in the proposed headpond area or</p>	3	<p>It is appreciated that this is a relevant, hypothetical question, it is almost impossible to provide a clear answer. Most of the evidence of valley wall failure is downstream of the proposed GS. A valley wall failure would be a shallow seated failure (based on field evidence. The height of the valley wall closely matches that of the river. That said, the slide would produce a bit of a ramp with more material on the bank and the rest extending into the flow. It</p>

Made By:	Comment:	Page:	Xeneca's Response:
	downstream of the dam? I would expect a catastrophic input of fine sediment into the Blanche River, which Blanche River flows would not be able to readily remove could entirely block the channel etc. under worse case conditions. What would the impact to the G.S. be?	3	is difficult to envision the entire flow being blocked as there is enough room for the river to migrate to the west away from the slide. That said, a partial blockage is possible. With flow being constricted, higher velocities and scour would occur. In the unlikely event of a failure, it is expected that flows through the GS would be increased to help the river adjust to the local blockage.
MNR	In the Previous Work section (2.5) is the extent of the HEC-RAS model strictly that 6.7 km distance? We believe it also now includes Stuart's Rapids below the Misema River confluence. Is there any possibility of extending this analysis below the Misema River confluence?	3	HEC RAS model is available to Englehart confluence.
MNR	How many of the cross-sections have generic "below water geometry", as indicated in Section 2.5.3 (Existing Hydraulic Model)?	3	None – Bathymetric work was completed by BPR that included the HEC-RAS sections. We added to the data set by collecting substrate data from these sections.
MNR	From Figure 3.2, in Reach 8 there is a bedrock pinch point just upstream of the confluence with the Misema River (see picture below, taken September 2011). High flows would be forced to the west side of the channel here and may be susceptible to erosion especially under a peaking regime. It would be worthwhile to have a cross-section at this pinch point to investigate water level and flow fluctuation here.	3	While this is true, there actually should be several sections, both at the pinch point as well as upstream and downstream. That said, the river has already experienced some adjustments (widened form) thus mitigating some of the effects of the peaking.
MNR	The pool that is indicated in Reach 7 is below the chutes or rapids section of Reach 6. Could you hypothesize if fine sediment deposition could occur in this pool? I imagine that sediment deposition here would be reduced if a dam is constructed upstream of the chutes section in Reach 6.	4	Correct. By way of a hypothesis, there will likely be slightly less sediment movement downstream of the dam. The hydraulics will be more varied and sediment through this pool may in fact be increased and not replenished as much from upstream sources based on the slight reduction of sediment supply.
MNR	Table 3.1 is helpful, we appreciate the gradient information presented here. There are obviously contrasting sections of fairly flat channel interrupted by steeper rapids.	4	Agreed. The gradients presented are reach-averaged.

Made By:	Comment:	Page:	Xeneca's Response:
MNR	For proposed waterpower projects such as Marter, the construction of a dam, penstocks, and tailrace and the manipulation of flows and levels will have a significant influence on the hydrology of the river upon which the sediment transport and channel change potential is dependent. As such, we don't believe a "Rapid Geomorphic Assessment" does the potential channel alterations any justice and would prefer to see a "Full Geomorphic Assessment" instead.	4	Given the initial scale of the assessment, the application of an RGA/RSAT approach to evaluate and screen the reaches is appropriate. This provides an initial assessment of the sensitivity of the river reaches identifies potential areas of concern and helps to focus the work. In addition to the RGA/RSAT work and more fulsome geomorphic assessment was completed in the area of the dam in order to provide an assessment and quantification of the implications on sediment supply and transport. As the issues and possible erosion concerns are further identified, they would be further assessed and refined through the next steps of the project.
MNR	In Section 4.1.1 Rapid Geomorphic Assessment, please provide the full references for: Ontario Ministry of Environment (1999), and Ontario Ministry of Environment (2003), as they are not in the References section.	4	(Ontario) Ministry of the Environment. 2003. Stormwater Management Planning and Design Manual, Ontario Ministry of Environment, March 2003.
MNR	In Section 4.2 Reach Characterizations, Reaches 1, 2, 3, and 4 are not included? But these reaches would be inundated and banks influenced by continual wetted and drying due to fluctuating reservoir / headpond levels? Does the conclusion of Reach 5 "appeared stable" consider the consequences of headpond fluctuations on the banks "comprised of clayey sands and silts"?	4	Section 4 presents the findings from the field assessment. The focus during the assessment was the proposed dam area as well as downstream areas. The furthest upstream extent of the field investigation was Reach 5.
MNR	For Reach 7 it would be better to refer to banks as on the west or east side of the channel rather than "left" or "right".	5	Agreed. For the next submission this will be rectified. The left and right banks are when facing in the downstream direction.
MNR	For Reach 8 the report indicates that the "reach appeared stable with little evidence of recent channel adjustment" but there certainly is visual evidence of massive valley failures that would deliver sediment and vegetation to the channel, along with smaller	5	Air photos from 1959, 1970, 1986 and a current ortho photo were reviewed as part of this work. There was evidence of valley wall erosion in both the 1959 and 1970 air photo. The river in the '59 photo displayed a locally braided form, suggesting a slump and the river re-working the sediment. .Since that time, the site has been stable and has re-vegetated.

Made By:	Comment:	Page:	Xeneca's Response:
	<p>river bank erosion scars. Considering that most dams are built with a 50 to 100 year lifespan in mind I think it is worth thinking in those types of timescales. Were historic air photos examined to look at the age and occurrence of the bigger valley failures? Large scale failures are likely to happen somewhere in this vicinity of the Blanche River every 30 to 40 years at least.</p>	5	
MNR	<p>In 4.2.2 Rapid Assessment Results, the report states “The higher RGA numbers for the widening factor were primarily based on the presence of leaning and fallen trees and woody debris along the channel. Although this could be a sign that the channel is widening due to watershed changes in hydrology, the trait is also typical of northern rivers and may not necessarily be indicative of channel adjustments.” The high amount of fallen trees and LWD in the channel are likely due to saturation of the high clay and silt content in the river banks which cannot support trees leading to eventual failure into the channel.</p>	5	<p>Noted. The explanation is the next report submission will be updated to reflect this form of channel adjustment.</p>
MNR	<p>The last sentence of Section 4.2.2 is poorly worded and doesn't make sense: “In this case, the bedrock channel is likely natural and not a symptom of instability.” Consider revising to something like “The bedrock channel is stable.”</p>	5	<p>Agreed. The report will be updated accordingly.</p>
MNR	<p>The summary of information presented in Tables 4.2 & 4.3 is good. However, average cross-section values are not particularly useful and it is best to look at the raw cross-section values. From these tables it looks like the Blanche River is narrowing downstream, comparing Reach 5 with Reach 8. Is there an idea or explanation for this?</p>	5	<p>It is true in that it appears that R8 has a slightly smaller cross-sectional area compared to R5. This may be due to the number of sites measured and/or placement of the sections. The river form and profile are comparable.</p>

Made By:	Comment:	Page:	Xeneca's Response:
MNR	In Section 4.3.2 Bankfull Hydraulics it looks like some flood frequency information was calculated using flow data from Water Survey of Canada gauge 02JC008 – Blanche River above Englehart? The summary of information provided in Tables 4.4 & 4.5 is greatly appreciated.	5	The information in this section was determined based on the field measurements and hydraulic analyses of this field data.
MNR	In Section 4.4.2 Suspended Material there is mention of surprise at the lack of sediment noticed in suspension. People who know the river often remark that the suspended material is a big concern and deserves close attention. Turbidity and suspended solids are two different things, but they seem to be considered the same in this section.	5	We are aware of the differences and the local concern, but had to initial rely on the field conditions at the time of the survey.
MNR	In Section 4.5 Flow Measurements, it would be helpful to prorate the measured flow with drainage areas from the discharge measurement locations and the Water Survey of Canada gauge location to get a truer sense of comparison. Are the 02JC008 values daily averages? The daily peaking of the Misema G.S. is captured by the WSC gauge, thus it is better to use hourly data to compare to measured discharges elsewhere on the river.	6	The values presented are daily means. We are in agreement that using an area:flow relationship would be appropriate in an effort to remove the contributions from the Misema River.
MNR	In Section 4.5 Flow Measurements, the 2 nd paragraph refers to “Velocity measurements were taken just upstream of Xeneca XS0.” Do you mean XX0? We did not see XS0 on Figure 4.7.	6	Yes – thanks for catching the typo.

Made By:	Comment:	Page:	Xeneca's Response:
MNR	In Table 11, the 14.0 m ³ /s date should be (15/10/2010), and this table is referenced as Table 4.8 later in the same paragraph.	6	Noted and agreed.
MNR	Section 5 analyses and describes the erosion of bed material (both sand and clay). Fairly low discharges are able to erode the fine and medium sized sand material (0.2 mm). Given this, we do not agree with the statement "so while lesser flows may push the sands around, the overall channel shouldn't experience much change with the proposed change in the hydrograph". With the proposed daily peaking cycles, this sand erosion threshold will be exceeded on a daily basis, providing a daily opportunity to move this material downstream, especially in Reaches 7 & 8, and downstream of the confluence with the Misema River. It looks like the depositional fate of this sediment is questionable and the magnitude, frequency, and timing of this transport could use further thought.	6	The interpretation and conclusion is subject to the amount of sediment supplied in this size range. Based on our field work and assessment, it was felt that the actual amount of sediment supplied and ultimately transported and re-worked is relatively low. The opinion from MNR that the potential is high based on possible bank failure is noted.
MNR	We agree that Reach 7 looks as though it will be a zone of deposition. But below the dam the amount of sediment should be reduced, and erosion in Reach 6 is minimal to begin with. At the end of this reach are some clay banks that are actively eroding, and worthy of monitoring as the G.S. comes online. A recommendation and/or commitment to such monitoring should be made.	6	Noted. This will be included in the monitoring plan.

Made By:	Comment:	Page:	Xeneca's Response:
MNR	We understand that the SIAM model must be “treated cautiously and interpreted as general trends of surplus and deficit”. Looking at Table 5.3, we would expect that everything under the Proposed Dam column from R1 to R5 would be aggrading, as this is all inundated now from the headpond / reservoir? This aggradation would increase closer to the dam? It would be best to put NA for R5 and R6 as this model fails in these reaches.	6	It is possible to put an NA for the results, but we feel it was beneficial to provide the results for each reach.
MNR	In Section 5.3 Bank Erosion, a reference is missing from the 4 th paragraph. In the 5 th paragraph there again is a statement that “most of the banks in the study reach appeared to be very stable”, when much erosion and instability is noticed, especially in R8.	6	The conclusion on the bank erosion was based on field observations and hydraulic action. The risk to valley failure is more a geotechnical matter. The most sensitive area was R8 and was noted in our field observations.
MNR	Does Rosgen’s (2002) method account for clay bank material, along with the rooting depth, root density, bank height, bank angle etc..?	7	Yes – it is applied under the ‘surface protection’ value.
MNR	In Figure 5.5 (Erosion potential map for the Marter Township Site), the colour scheme does not look correct; darker green section are not in the legend for example. The highest erosion potential is at the top of the valleys, on the floodplain? We would expect the highest erosion would be adjacent to the channel in most cases. The Areas of Concern are poorly identified and rectangular boxes as depicted do not show where the concern is very accurately. It looks	7	It should be emphasized that the results were based on GIS and DEM (Lidar). We will refine the areas of concern in the next report submission.

Made By:	Comment:	Page:	Xeneca's Response:
	like most of R8 is an Area of Concern; assume the suggestion here is toward future monitoring of these locations. If so this should be more clearly indicated.	7	
End of MNR Comments			
MOE	Paragraph 1, p. 1 – It would be helpful to add a reference to the provincial requirement for Class EA for Waterpower Projects as this is a key reason for this study.	N/A	Noted. The next report submission will add this reference.
MOE	On p. 4 the report states that the “anticipated zone of influence of the operational facility on the downstream waterway is 2 km to the Misema River”. This is not MOE’s understanding of the downstream zone of influence for the project. It is our understanding that Xeneca has proposed the confluence of the Blanche and Englehart Rivers as the downstream zone of influence and that they would manage the flow at this location to be in compliance with a + - 10 cm range in variation. However, there is no agreement between the company and MOE on this approach because it is not based on the geographic extent of the downstream effects from the project as outlined on p. 39 of the Class EA for Waterpower Projects document.	N/A	As explained above, geomorphic assessment to Misema River confluence is sufficient with the new proposed operating plan.

Made By:	Comment:	Page:	Xeneca's Response:
MOE	This draft report is helpful in identifying the potential effects of the project on erosion and sedimentation for the upstream area and from the proposed operation downstream to the confluence of the Blanche and Misema River. However, as noted above, the proponent will need to ensure that any negative effects are identified downstream to the full extent of the zone of influence.	N/A	As described above, with the new proposed operation around Mesima GS operation, geomorphic assessment to the Mesima confluence should be sufficient.
MOE	With respect to the current assessment of erosion and sedimentation, there are a number of locations where monitoring is suggested. MOE recommends that a monitoring plan be developed and submitted as part of the final report that identifies locations that will be monitored and how often this will occur. The final monitoring plan should include the full up and downstream zones of influence for the project.	N/A	Agreed. The next report submission will include recommendations for future monitoring.
MOE	<p>Hydrology</p> <p>Still no agreement on the zone of influence, as an approach is still being developed with MOE/MNR and Xeneca, based on the principle of characterizing the current condition of the river, as well as the proposed alterations.</p> <p>As such, the study examines the headpond of the proposed facility down to the confluence with the Misema, so that the entire reach which could be impacted is not fully examined. It was previously communicated to Xeneca that the cumulative effects of Misema must be considered reflecting the downstream conditions of the confluence of the Misema and Blanche (Note 12, Tina Webb, Meeting</p>	N/A	As explained above, geomorphic assessment to Misema River confluence is sufficient with the new proposed operating plan.

Made By:	Comment:	Page:	Xeneca's Response:
	minutes 20-Jul-2012). It has also been proposed that Xeneca will potentially operate off cycle from the Misema project to minimize sub-daily water level fluctuations within the river channel, however many of the details have yet to be provided. The consideration of current conditions and proposed operations should be considered during further review, as well as potential cumulative effects of both facilities.		
End of MOE Comments			
DFO	Potential erosion/sedimentation issues resulting from construction and operation of the proposed hydro dam/facility appear to represent a low risk to fish/fish habitat.	N/A	Thank you.

From: Stephanie Hodsoll <SHodsoll@xeneca.com>
Sent: March-28-13 11:44 AM
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Cc: kbeatty@vianet.ca; Uwe Roeper
Subject: Marter/Misema operations
Attachments: R91195 Marter Twp Min Flow Target at 02JC008rev2.pdf

Hi everyone,

In recent Marter project meetings, MNR and other agencies have expressed concerns about the Marter & Misema generating stations operating in peaking mode at the same time. We engaged a consultant (Ortech) to review this issue and asked for their suggestions/opinions about whether the operation of the Marter GS around the Misema GS operation is achievable.

Please find attached a short memo report prepared by the consultant addressing this issue. We hope this document will be useful for the upcoming April 3 meeting.

Thanks!
Steph

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From: Eggers, Kelly <Kelly.Eggers@dfo-mpo.gc.ca>
Sent: October-30-13 5:57 PM
To: McDonald, Lauren (MNR); Stephanie Hodsoll
Cc: Kristi Beatty; Grace Yu; Ed Laratta; White, Rosanna (ENE); Muriel Kim; Ciara DeJong; Mark Holmes; Scott Manser; Walker, Shaun (MNR); Moro, Eleanor (MNR)
Subject: RE: Marter Spawning Operating Restrictions Tables

Hi Steph and Lauren,

DFO supports the changes proposed by MNR. Using the full range of temperatures as a guide to operations rather than limiting it to the optimal range makes sense if that is more consistent with observed spawning on the Blanche. With regards to facilitating sturgeon larval drift, to ensure there is enough flow at night, perhaps operating at night may be another option.

Kelly

Kelly Eggers

Fisheries Protection Biologist | Biologiste de protection des pêches

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Central and Arctic Region | Région Centrale et de l'Arctique

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Sent: October-29-13 3:50 PM
To: Stephanie Hodsoll
Cc: Kristi Beatty; Grace Yu; Ed Laratta; White, Rosanna (ENE); Muriel Kim; Ciara DeJong; Mark Holmes; Scott Manser; Eggers, Kelly; Walker, Shaun (MNR); Moro, Eleanor (MNR)
Subject: RE: Marter Spawning Operating Restrictions Tables

Hi Stephanie,

I've finished reading through the references you had provided to me*, and reviewing the sturgeon spawning mitigation table you had sent in September. I've copied the table into a word document and tracked some comments therein.

In comparing the numbers to the table, I noticed that the temperatures/times provided were selected from the "optimal range" or the lowest number, for the various life processes, but that the literature states alternate numbers meant to capture the full extent of the process (e.g. egg incubation requires 8-14 days, and 8 days was listed in the table). As my impression was that Xeneca was attempting to avoid impacts to the species, I have altered the numbers accordingly, also taking into account local variation.

During the larval drift period, I am concerned about 2 major pieces: 1) to ensure that dewatering does not cause stranding during the day, and 2) to ensure that larvae can safely drift downstream during the night. I have put “5cms” as a placeholder in the table for now to cover stranding, but believe that further discussion on this front is required. To ensure that drift continues, I have recommended running as ROR from 8pm to 3am (“optimal” times are listed from 9pm – 2am). This is likely a piece that will require monitoring.

Please note I still believe the cumulative thermal units (or cumulative GDD) method described in earlier correspondence is the better approach, as it more accurately predicts incubation periods etc, and is also more likely to account for temperature fluctuations in an “abnormal year” and/or capture a second spawn, resulting in lower risk of impacts.

I also reviewed this piece only from the perspective of mitigating impacts to sturgeon spawning and larval drift life history phases – the mitigation efforts described in this table would not avoid all impacts to lake sturgeon as a result of operations (e.g. juveniles/juvenile habitat).

If you have any further questions, please don’t hesitate to ask.

Lauren

*Please note: I was unable to identify the relevance of most of the articles/documents you provided in the link to the mitigation table provided. Prior to further discussions, please identify which document is associated with which section of the table to avoid confusion.

Lauren McDonald | Management Biologist, Kirkland Lake/Claybelt Area | Kirkland Lake District OMNR | Tel. 705-568-3241 | Fax. 705-568-3200 | lauren.mcdonald@ontario.ca

From: Eggers, Kelly [<mailto:Kelly.Eggers@dfo-mpo.gc.ca>]

Sent: September 18, 2013 3:46 PM

To: Stephanie Hodsoll; Walker, Shaun (MNR); McDonald, Lauren (MNR)

Cc: Kristi Beatty; Grace Yu; Ed Laratta; White, Rosanna (ENE); Muriel Kim; Ciara DeJong; Mark Holmes; Scott Manser

Subject: RE: Marter Spawning Operating Restrictions Tables

Thanks Steph.

I don’t think we need to discuss them on Thursday, but I do need to confirm with MNR that the “maximum daily range of 20 cms” in the Lake Sturgeon table is appropriate for the Marter site, as it is a bit different than the Wabagishik site. We can do that by email/phone.

Thanks

Kelly

Kelly Eggers

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Kelly.Eggers@dfo-mpo.gc.ca

From: Stephanie Hodsoll [<mailto:SHodsoll@xeneca.com>]

Sent: September-16-13 2:21 PM

To: Eggers, Kelly; Walker, Shaun (MNR)

Cc: Kristi Beatty; Grace Yu; Ed Laratta; White, Rosanna (ENE); McDonald, Lauren (MNR); Muriel Kim; Ciara DeJong; Mark Holmes; Scott Manser

Subject: RE: Marter Spawning Operating Restrictions Tables

Hi Shaun & Kelly,

Way back in April, we had a meeting with an action item to send you updated spawning tables. Here are the tables as they are currently in the Marter OP Plan – we still need to compare this plan to the various tables / updates, etc to make sure the plan contains all the commitments.

Just wanted to keep you in the loop about what is going on.

If you would like to discuss these at the meeting on Thursday we could add it to the agenda if there is time.

Thanks!

Steph

Operating Restrictions for Walleye Spawning

Comment [SM1]: Updated from June 2013 Wabagishik OP Plan – Walleye and Sturgeon Tables

Walleye Life Stage	Water Temperature/ Timing	Temperature / Cumulative Time Trigger	Mode of Operation	Rationale
Beginning of Walleye staging and spawning	4°C	4°C	Begin run of the river	Ensures staging is not affected by operations
Beginning of active Walleye spawning	6°C	-	Continue run of the river	Ensures spawning is not affected by operations
End of active Walleye spawning, ongoing egg incubation	12°C*	-	Continue run of the river	Ensures eggs are not dewatered by operations
Walleye egg incubation time from end of spawning until hatch	Allow 18 days after spawning	-	Continue run of the river	Ensures eggs are not dewatered by operations
Hatch, yolk sac absorption and continued larval development until fry are free swimming	Allow additional 15 days after hatch	-	Continue run of the river	Ensures recently hatched larvae are not stranded due to operations
Fry disperse into open water	-	33 days after 12°C is reached*	End run of the river, begin normal summer operations	Operations no longer affect fry as they have dispersed from the spawning grounds

*If water temperature rises very slowly, the range of spawning temperatures (6 -12°C) may be experienced for several weeks. In these instances, Walleye may spawn at lower than normal temperatures and spawning will end before the temperature reaches 12°C. Alternatively, they may reabsorb their eggs and not spawn. In such circumstances, consultation between Xeneca Power and the MNR may result in a conclusion being

reached that the spawn is over (based on known conclusion of spawning elsewhere in the area). In this case, egg incubation time would be considered to start at the time this determination is made.

Operating Restrictions for Lake Sturgeon Spawning

Lake Sturgeon Life Stage	Water Temperature/ Timing	Temperature / Cumulative Time Trigger	Mode of Operation	Objective
Beginning of Lake Sturgeon spawning	8°C	8°C	Begin run of the river	Ensure spawning is not affected by operations.
Beginning of active Lake Sturgeon spawning	11°C	-	Continue run of the river	Ensure spawning is not affected by operations.
End of active Lake Sturgeon spawning, ongoing egg incubation	16°C	-	Continue run of the river	Ensure eggs are not dewatered by operations.
Lake Sturgeon egg incubation from end of spawning until hatch	Allow 8 days after spawning	-	Continue run of the river	Ensure eggs are not dewatered by operations.
Hatch, yolk sac absorption and continued larval development	Allow additional 17 days after hatch	-	Continue run of the river	Ensure recently hatched larvae are not stranded due to operations.
Beginning of Lake Sturgeon larval drift	-	25 days after 16°C is reached	Begin modified operations with a maximum daily range of 20 cms and no intermittent operations	Facilitate lake sturgeon larval drift.
Lake Sturgeon larval drift	Allow 21 days for larval drift	-	Continue the modified operations with a maximum daily range of 20 cms and no intermittent operations	Facilitate lake sturgeon larval drift.
End of Lake Sturgeon larval drift	-	46 days after 16°C is reached	End special operating restrictions for Lake Sturgeon larval drift, begin normal summer operations.	Allow normal summer operations once ample time has been given for drift in the section of river from Wabageshik Rapids to the Domtar headpond.

Stephanie Hodsoll

Stakeholder Relations Officer | Xeneca Power Development | 5255 Yonge St., Suite 1200, North York, ON M2N 6P4 |

Tel: (416) 590-3077

From: Eggers, Kelly [<mailto:Kelly.Eggers@dfo-mpo.gc.ca>]
Sent: Friday, July 12, 2013 12:07 PM
To: Stephanie Hodson; McDonald, Lauren (MNR); Walker, Shaun (MNR); Muriel Kim
Cc: Kristi Beatty; Grace Yu; Ed Laratta; Ciara DeJong; Mark Holmes; White, Rosanna (ENE)
Subject: RE: Marter Spawning Operating Restrictions Tables

Hi Steph,

While the updates to the tables that were supposed to be done by ORMG following the April 11th meeting weren't specified in our meeting minutes, what I have in my notes is that they were to be updated to match the tables for Wabagishik. The tables for Wabagishik had been updated in February with comments to NRSI from myself and MNR (I've attached the emails). So the same updates were to be reflected in the Marter table. While the current version of the Marter table is similar in intent to the Wabagishik table, there are a few key differences, hence the intention from the April 11th meeting to update the Marter table to match the most recent Wabagishik table.

For reference, I have attached the correspondance between NRSI, MNR, and DFO from February with the Wabagishik table and MNR/DFO comments on it.

The second line of the Walleye table for Marter, in the far right-hand column, indicates ROR operation until 14 days have passed or 12C is reached. The Wabagishik table uses only a temperature trigger for the end of spawning, which I believe is appropriate. The footnote under the walleye table in the Marter plan, if MNR agrees with it, would allow for an earlier move to the egg incubation, but for Wabagishik we recommended that footnote be removed. Also for Wabagishik during the egg incubation and yolk sac absorption periods operations are to be ROR, yet the Marter table indicates no intermittent operation is also a possibility. As the walleye spawn period runs right into the sturgeon spawn period which is also ROR, there wouldn't be an opportunity to switch operations anyways.

For the Sturgeon table in the Marter OP, the second line again lists 14 days or until 16 degrees is reached. Similarly to my comment above re: walleye, using only the temperature trigger would be appropriate. Under yolk sac absorption, the Wabagishik Table lists that time period as being 17 days after hatch, while the Marter Table indicates 2-5 days...quite a difference there. Also during yolk sac absorption, the Wabagishik operations are ROR, while Marter indicates can start intermittent - for Wabagishik, modified operations start at larval drift, because they aren't too mobile before that. Even with a 20cm water fluctuation the developing larvae could be stranded. Larval drift does occur at night, so that note in the Marter table should remain.

My understanding following the April 11th meeting was that these changes would be made. DFO is unable to accept the Marter OP spawning tables as they currently exist in the plan dated July 2012 as there would likely be impacts to fish and fish habitat.

Thanks

Kelly

Kelly Eggers

Fisheries Protection Biologist | Biologiste de protection des pêches

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Kelly.Eggers@dfo-mpo.gc.ca

From: Stephanie Hodsoll [<mailto:SHodsoll@xeneca.com>]
Sent: July 11, 2013 8:54 AM
To: Eggers, Kelly; McDonald, Lauren (MNR); Walker, Shaun (MNR); Muriel Kim
Cc: Kristi Beatty; Grace Yu; Ed Laratta; Ciara DeJong; Mark Holmes; White, Rosanna (ENE)
Subject: Marter Spawning Operating Restrictions Tables

Hi Kelly & Lauren,

Regarding the action item as discussed on last Friday's Marter call:

ACTION: GY to send spawning tables and operating plans to KB to be updated and sent to SW and KE.

The approach we have taken (detailed below) will see Xeneca submitting the final Marter ER using our (current & unchanged) degree proposal. The action item above was based on the idea that Xeneca might submit the final ER with a degree-day proposal. As we are sticking with an unchanged method, the tables do not need to be updated at this time. I have attached Grace's original email from April 11 with the original spawning tables for your reference.

MORE INFO:

Below is an excerpt from my email to Lauren/Rosanna on May 3/May 7, regarding the approach adopted by Xeneca:

Regarding the current degree versus degree-day (cumulative thermal units) discussion, we would like to go ahead and put out the Marter EA with our current degree proposal.

We are trying very hard to get the final EA out, and changing to the degree-day methodology would only contribute to further delays.

However, we propose that during permitting and Water Management Planning, we work with you and Kristi at ORMG to see what the degree-days proposal would look like. We could change to a degree-days approach at that time if it is appropriate.

Rosanna's advice on this was: "I would recommend that all aspects of this proposal that are known at the time of ER submission, such as the fact that the facility will be operated as Run of River during the spawning periods dictated by this thermal approach, should be included in the final ER. The final ER should show the work that has been done to date on this matter (so keeping what has already been done in there and including MNR's proposed changes from their previous comments) and then also stating that the details of the final thermal based approach will be agreed to with MNR and DFO at the permitting stage."

Thanks,
Steph

Stephanie Hodsoll
Stakeholder Relations
Xeneca Power Development
5255 Yonge St., Suite 1200
North York, ON M2N 6P4
(416) 590-3077

From: Stephanie Hodsoll <SHodsoll@xeneca.com>
Sent: November-04-13 10:38 AM
To: McDonald, Lauren (MNR); Walker, Shaun (MNR); White, Rosanna (ENE); Eggers, Kelly
Cc: Nava Pokharel; Ed Laratta; Mark Holmes; Uwe Roeper; Mohammed Hansa; Ciara DeJong
Subject: Marter - HEC-RAS QEA Comparison (0.5 cms)
Attachments: 1052-001-3 1 3 4 DK Marter QEA Comparison r0 DRAFT.pdf

Good morning everyone,

As requested by Lauren McDonald on the September 19 2013 Biological Effects call, please see attached the Hec-Ras environmental flow comparison for Marter, with a 0.5 cms environmental flow.

If you have any questions please let me know.

Thanks,
Steph

Stephanie Hodsoll
Stakeholder Relations Manager | Xeneca Power Development | 5255 Yonge St., Suite 1200, North York, ON M2N 6P4 |
Tel: (416) 590-3077

Subject: FW: Marter Spawning Operating Restrictions Tables

From: Stephanie Hodsoll
Sent: Monday, November 11, 2013 2:30 PM
To: 'Eggers, Kelly'
Cc: 'McDonald, Lauren (MNR)'; Walker, Shaun (MNR); White, Rosanna (ENE)
Subject: RE: Marter Spawning Operating Restrictions Tables

Hi Kelly, I addressed my earlier email to Lauren only.
Sorry, it should have had both of your names in the "To" line.
Please excuse that omission!

Thanks,
Steph

Stephanie Hodsoll

Stakeholder Relations Manager | Xeneca Power Development | 5255 Yonge St., Suite 1200, North York, ON M2N 6P4 |
Tel: (416) 590-3077

From: Eggers, Kelly [<mailto:Kelly.Eggers@dfo-mpo.gc.ca>]
Sent: Wednesday, October 30, 2013 5:57 PM
To: McDonald, Lauren (MNR); Stephanie Hodsoll
Cc: Kristi Beatty; Grace Yu; Ed Laratta; White, Rosanna (ENE); Muriel Kim; Ciara DeJong; Mark Holmes; Scott Manser; Walker, Shaun (MNR); Moro, Eleanor (MNR)
Subject: RE: Marter Spawning Operating Restrictions Tables

Hi Steph and Lauren,

DFO supports the changes proposed by MNR. Using the full range of temperatures as a guide to operations rather than limiting it to the optimal range makes sense if that is more consistent with observed spawning on the Blanche. With regards to facilitating sturgeon larval drift, to ensure there is enough flow at night, perhaps operating at night may be another option.

Kelly

Kelly Eggers

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From: McDonald, Lauren (MNR) [<mailto:Lauren.McDonald@ontario.ca>]

Sent: October-29-13 3:50 PM

To: Stephanie Hodson

Cc: Kristi Beatty; Grace Yu; Ed Laratta; White, Rosanna (ENE); Muriel Kim; Ciara DeJong; Mark Holmes; Scott Manser; Eggers, Kelly; Walker, Shaun (MNR); Moro, Eleanor (MNR)

Subject: RE: Marter Spawning Operating Restrictions Tables

Hi Stephanie,

I've finished reading through the references you had provided to me*, and reviewing the sturgeon spawning mitigation table you had sent in September. I've copied the table into a word document and tracked some comments therein.

In comparing the numbers to the table, I noticed that the temperatures/times provided were selected from the "optimal range" or the lowest number, for the various life processes, but that the literature states alternate numbers meant to capture the full extent of the process (e.g. egg incubation requires 8-14 days, and 8 days was listed in the table). As my impression was that Xeneca was attempting to avoid impacts to the species, I have altered the numbers accordingly, also taking into account local variation.

During the larval drift period, I am concerned about 2 major pieces: 1) to ensure that dewatering does not cause stranding during the day, and 2) to ensure that larvae can safely drift downstream during the night. I have put "5cms" as a placeholder in the table for now to cover stranding, but believe that further discussion on this front is required. To ensure that drift continues, I have recommended running as ROR from 8pm to 3am ("optimal" times are listed from 9pm – 2am). This is likely a piece that will require monitoring.

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If you have any further questions, please don't hesitate to ask.

Lauren

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Lauren McDonald | Management Biologist, Kirkland Lake/Claybelt Area | Kirkland Lake District OMNR | Tel. 705-568-3241 | Fax. 705-568-3200 | lauren.mcdonald@ontario.ca

From: Eggers, Kelly [<mailto:Kelly.Eggers@dfo-mpo.gc.ca>]

Sent: September 18, 2013 3:46 PM

To: Stephanie Hodson; Walker, Shaun (MNR); McDonald, Lauren (MNR)

Cc: Kristi Beatty; Grace Yu; Ed Laratta; White, Rosanna (ENE); Muriel Kim; Ciara DeJong; Mark Holmes; Scott Manser

Subject: RE: Marter Spawning Operating Restrictions Tables

Thanks Steph.

I don't think we need to discuss them on Thursday, but I do need to confirm with MNR that the "maximum daily range of 20 cms" in the Lake Sturgeon table is appropriate for the Marter site, as it is a bit different than the Wabagishik site. We can do that by email/phone.

Thanks

Kelly

Kelly Eggers

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Kelly.Eggers@dfo-mpo.gc.ca

From: Stephanie Hodson [mailto:SHodson@xeneca.com]

Sent: September-16-13 2:21 PM

To: Eggers, Kelly; Walker, Shaun (MNR)

Cc: Kristi Beatty; Grace Yu; Ed Laratta; White, Rosanna (ENE); McDonald, Lauren (MNR); Muriel Kim; Ciara DeJong; Mark Holmes; Scott Manser

Subject: RE: Marter Spawning Operating Restrictions Tables

Hi Shaun & Kelly,

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Just wanted to keep you in the loop about what is going on.

If you would like to discuss these at the meeting on Thursday we could add it to the agenda if there is time.

Thanks!
Steph

Operating Restrictions for Walleye Spawning

Walleye Life Stage	Water Temperature/ Timing	Temperature / Cumulative Time Trigger	Mode of Operation	Rationale
Beginning of Walleye staging and spawning	4°C	4°C	Begin run of the river	Ensures staging is not af operations

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Hatch, yolk sac absorption and continued larval development until fry are free swimming	Allow additional 15 days after hatch	-	Continue run of the river	Ensures recently hatched stranded due to operati
Fry disperse into open water	-	33 days after 12°C is reached*	End run of the river, begin normal summer operations	Operations no longer aff have dispersed from the

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Operating Restrictions for Lake Sturgeon Spawning

Lake Sturgeon Life Stage	Water Temperature/ Timing	Temperature / Cumulative Time Trigger	Mode of Operation	Objective
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Stephanie Hodsoil

Stakeholder Relations Officer | Xeneca Power Development | 5255 Yonge St., Suite 1200, North York, ON M2N 6P4 | Tel (416) 590-3077

From: Eggers, Kelly [<mailto:Kelly.Eggers@dfo-mpo.gc.ca>]

Sent: Friday, July 12, 2013 12:07 PM

To: Stephanie Hodsoil; McDonald, Lauren (MNR); Walker, Shaun (MNR); Muriel Kim

Cc: Kristi Beatty; Grace Yu; Ed Laratta; Ciara DeJong; Mark Holmes; White, Rosanna (ENE)

Subject: RE: Marter Spawning Operating Restrictions Tables

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Thanks

Kelly

Kelly Eggers

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Kelly.Eggers@dfo-mpo.gc.ca

From: Stephanie Hodsoll [<mailto:SHodsoll@xeneca.com>]

Sent: July 11, 2013 8:54 AM

To: Eggers, Kelly; McDonald, Lauren (MNR); Walker, Shaun (MNR); Muriel Kim

Cc: Kristi Beatty; Grace Yu; Ed Laratta; Ciara DeJong; Mark Holmes; White, Rosanna (ENE)

Subject: Marter Spawning Operating Restrictions Tables

Hi Kelly & Lauren,

Regarding the action item as discussed on last Friday's Marter call:

ACTION: GY to send spawning tables and operating plans to KB to be updated and sent to SW and KE.

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MORE INFO:

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Thanks,
Steph

Stephanie Hodsoll
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Xeneca Power Development
5255 Yonge St., Suite 1200
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(416) 590-3077

From: Eggers, Kelly <Kelly.Eggers@dfo-mpo.gc.ca>
Sent: November-15-13 2:01 PM
To: Stephanie Hodsoll; McDonald, Lauren (MNR)
Cc: Kristi Beatty; Grace Yu; Ed Laratta; White, Rosanna (ENE); Muriel Kim; Ciara DeJong; Mark Holmes; Scott Manser; Moro, Eleanor (MNR); Walker, Shaun (MNR)
Subject: RE: Marter Spawning Operating Restrictions Tables

Hi Steph, Hi Lauren,

To clarify, the spawning operating restrictions table indicated that during larval drift there would not be intermittent operations. I think that's what was meant though in the description of there being at least 4.8 m³/s all the time, which is the turbine minimum, meaning continuous operation.

I had another look through the published literature to see if there was indication of what constitutes adequate night time flow to facilitate larval drift and wasn't able to find anything conclusive.

Considering the short distance from the Marter site to the confluence with the Misema, combined with the proposed mitigation of RoR operation throughout the full temperature range of spawning to yolk sac absorption followed by modified operation with limited fluctuations (maximum daily range of 5 m³/s) and continuous operation essentially meaning a higher minimum flow during that time (4.8 m³/s), DFO is satisfied that the proposed operations represent a low risk to fish/fish habitat.

Sincerely,

Kelly Eggers

Fisheries Protection Biologist | Biologiste de protection des pêches

Fisheries and Oceans Canada | Pêches et Océans Canada
Central and Arctic Region | Région Centrale et de l'Arctique

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Kelly.Eggers@dfo-mpo.gc.ca

From: Stephanie Hodsoll [mailto:SHodsoll@xeneca.com]
Sent: November-11-13 9:35 AM
To: McDonald, Lauren (MNR)
Cc: Kristi Beatty; Grace Yu; Ed Laratta; White, Rosanna (ENE); Muriel Kim; Ciara DeJong; Mark Holmes; Scott Manser; Moro, Eleanor (MNR); Eggers, Kelly; Walker, Shaun (MNR)
Subject: RE: Marter Spawning Operating Restrictions Tables

Hi Lauren,

Thank you for your comments on the Marter sturgeon spawning season operation restrictions table (attached.) We have incorporated all but one of your comments, which is *“Run-of-river from 8 pm to 3 am during lake sturgeon larval drift for 21 days.”*

As you know, the operation of the facility will still be intermittent (or continuous) during the larval drift period which means there will at least 4.8 (m³/s) from the project site to the Misema River confluence. And, downstream of Misema confluence, there will be additional flow from the Misema River. When we review the hydraulics of the river, the flow of 4.8 (m³/s) is more than sufficient to provide the necessary hydraulic conditions for the larval drift. Even in existing conditions, the Blanche River at the project site sees similar - or even lesser - flows during this time period.

In terms of power generation, it does not make sense to operate the facility in run-of-river (RoR) mode during night time (which would mean operating the GS in RoR mode for 24 hours.) Running the facility in RoR operation from 8 pm - 3 am during lake sturgeon larval drift would significantly impact the revenue of the project without greatly increasing environmental values.

We hope that you find this a reasonable approach and satisfied with our proposal.

Thanks,
Steph

Stephanie Hodsoil

Stakeholder Relations Manager | Xeneca Power Development | 5255 Yonge St., Suite 1200, North York, ON M2N 6P4 | Tel: (416) 590-3077

From: McDonald, Lauren (MNR) [<mailto:Lauren.McDonald@ontario.ca>]

Sent: Wednesday, October 02, 2013 5:25 PM

To: Stephanie Hodsoil

Cc: Kristi Beatty; Grace Yu; Ed Laratta; White, Rosanna (ENE); Muriel Kim; Ciara DeJong; Mark Holmes; Scott Manser; Moro, Eleanor (MNR); Eggers, Kelly; Walker, Shaun (MNR)

Subject: RE: Marter Spawning Operating Restrictions Tables

Hi Stephanie,

I was hoping you could send me a list of references used to fill in the table – especially those references used to determine prime temperatures for sturgeon spawning.

Also, I was wondering if Xeneca can provide us with the baseline temperature information that is being collected – it would help to determine whether the temperatures in the chart are representative of spawning times in the Blanche River.

Thanks,
Lauren

Lauren McDonald | Management Biologist, Kirkland Lake/Claybelt Area | Kirkland Lake District OMNR | Tel. 705-568-3241 | Fax. 705-568-3200 | lauren.mcdonald@ontario.ca

From: Eggers, Kelly [<mailto:Kelly.Eggers@dfo-mpo.gc.ca>]

Sent: September 18, 2013 3:46 PM

To: Stephanie Hodsoil; Walker, Shaun (MNR); McDonald, Lauren (MNR)

Cc: Kristi Beatty; Grace Yu; Ed Laratta; White, Rosanna (ENE); Muriel Kim; Ciara DeJong; Mark Holmes; Scott Manser

Subject: RE: Marter Spawning Operating Restrictions Tables

Thanks Steph.

I don't think we need to discuss them on Thursday, but I do need to confirm with MNR that the "maximum daily range of 20 cms" in the Lake Sturgeon table is appropriate for the Marter site, as it is a bit different than the Wabagishik site. We can do that by email/phone.

Thanks

Kelly

Kelly Eggers

Fisheries Protection Biologist | Biologiste de protection des pêches

Fisheries and Oceans Canada | Pêches et Océans Canada
Central and Arctic Region | Région Centrale et de l'Arctique

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Kelly.Eggers@dfo-mpo.gc.ca

From: Stephanie Hodsoll [<mailto:SHodsoll@xeneca.com>]

Sent: September-16-13 2:21 PM

To: Eggers, Kelly; Walker, Shaun (MNR)

Cc: Kristi Beatty; Grace Yu; Ed Laratta; White, Rosanna (ENE); McDonald, Lauren (MNR); Muriel Kim; Ciara DeJong; Mark Holmes; Scott Manser

Subject: RE: Marter Spawning Operating Restrictions Tables

Hi Shaun & Kelly,

Way back in April, we had a meeting with an action item to send you updated spawning tables. Here are the tables as they are currently in the Marter OP Plan – we still need to compare this plan to the various tables / updates, etc to make sure the plan contains all the commitments.

Just wanted to keep you in the loop about what is going on.

If you would like to discuss these at the meeting on Thursday we could add it to the agenda if there is time.

Thanks!
Steph

Operating Restrictions for Walleye Spawning

Walleye Life Stage	Water Temperature/ Timing	Temperature / Cumulative Time Trigger	Mode of Operation	Rationale
Beginning of Walleye staging and spawning	4°C	4°C	Begin run of the river	Ensures staging is not affected by operations
Beginning of active Walleye spawning	6°C	-	Continue run of the river	Ensures spawning is not affected by operations
End of active Walleye spawning, ongoing egg incubation	12°C*	-	Continue run of the river	Ensures eggs are not devoured by operations
Walleye egg incubation time from end of spawning until hatch	Allow 18 days after spawning	-	Continue run of the river	Ensures eggs are not devoured by operations
Hatch, yolk sac absorption and continued larval development until fry are free swimming	Allow additional 15 days after hatch	-	Continue run of the river	Ensures recently hatched fry are not stranded due to operations
Fry disperse into open water	-	33 days after 12°C is reached*	End run of the river, begin normal summer operations	Operations no longer affect fry that have dispersed from the river

*If water temperature rises very slowly, the range of spawning temperatures (6 -12°C) may be experienced for several weeks. In these instances, Walleye may spawn at lower than normal temperatures and spawning will end before the temperature reaches 12°C. Alternatively, they may reabsorb their eggs and not spawn. In such circumstances, consultation between Xeneca Power and the MNR may result in a conclusion being reached that the spawn is over (based on known conclusion of spawning elsewhere in the area). In this case, egg incubation time would be considered to start at the time this determination is made.

Operating Restrictions for Lake Sturgeon Spawning

Lake Sturgeon Life Stage	Water Temperature/ Timing	Temperature / Cumulative Time Trigger	Mode of Operation	Objective
Beginning of Lake Sturgeon spawning	8°C	8°C	Begin run of the river	Ensure spawning is not a operations.
Beginning of active Lake Sturgeon spawning	11°C	-	Continue run of the river	Ensure spawning is not a operations.
End of active Lake Sturgeon spawning, ongoing egg incubation	16°C	-	Continue run of the river	Ensure eggs are not dew operations.
Lake Sturgeon egg incubation from end of spawning until hatch	Allow 8 days after spawning	-	Continue run of the river	Ensure eggs are not dew operations.
Hatch, yolk sac absorption and continued larval development	Allow additional 17 days after hatch	-	Continue run of the river	Ensure recently hatched stranded due to operati
Beginning of Lake Sturgeon larval drift	-	25 days after 16°C is reached	Begin modified operations with a maximum daily range of 20 cms and no intermittent operations	Facilitate lake sturgeon l
Lake Sturgeon larval drift	Allow 21 days for larval drift	-	Continue the modified operations with a maximum daily range of 20 cms and no intermittent operations	Facilitate lake sturgeon l
End of Lake Sturgeon larval drift	-	46 days after 16°C is reached	End special operating restrictions for Lake Sturgeon larval drift, begin normal summer operations.	Allow normal summer o ample time has been giv section of river from Wa the Domtar headpond.

Stephanie Hodsoil

Stakeholder Relations Officer | Xeneca Power Development | 5255 Yonge St., Suite 1200, North York, ON M2N 6P4 | Tel (416) 590-3077

From: Eggers, Kelly [<mailto:Kelly.Eggers@dfo-mpo.gc.ca>]

Sent: Friday, July 12, 2013 12:07 PM

To: Stephanie Hodsoil; McDonald, Lauren (MNR); Walker, Shaun (MNR); Muriel Kim

Cc: Kristi Beatty; Grace Yu; Ed Laratta; Ciara DeJong; Mark Holmes; White, Rosanna (ENE)

Subject: RE: Marter Spawning Operating Restrictions Tables

Hi Steph,

While the updates to the tables that were supposed to be done by ORMG following the April 11th meeting weren't specified in our meeting minutes, what I have in my notes is that they were to be updated to match the tables for Wabagishik. The tables for Wabagishik had been updated in February with comments to NRSI from myself and MNR (I've attached the emails). So the same updates were to be reflected in the Marter table. While the current version of the Marter table is similar in intent to the Wabagishik table, there are a few key differences, hence the intention from the April 11th meeting to update the Marter table to match the most recent Wabagishik table.

For reference, I have attached the correspondance between NRSI, MNR, and DFO from February with the Wabagishik table and MNR/DFO comments on it.

The second line of the Walleye table for Marter, in the far right-hand column, indicates ROR operation until 14 days have passed or 12C is reached. The Wabagishik table uses only a temperature trigger for the end of spawning, which I believe is appropriate. The footnote under the walleye table in the Marter plan, if MNR agrees with it, would allow for an earlier move to the egg incubation, but for Wabagishik we recommended that footnote be removed. Also for Wabagishik during the egg incubation and yolk sac absorption periods operations are to be ROR, yet the Marter table indicates no intermittent operation is also a possibility. As the walleye spawn period runs right into the sturgeon spawn period which is also ROR, there wouldn't be an opportunity to switch operations anyways.

For the Sturgeon table in the Marter OP, the second line again lists 14 days or until 16 degrees is reached. Similarly to my comment above re: walleye, using only the temperature trigger would be appropriate. Under yolk sac absorption, the Wabagishik Table lists that time period as being 17 days after hatch, while the Marter Table indicates 2-5 days...quite a difference there. Also during yolk sac absorption, the Wabagishik operations are ROR, while Marter indicates can start intermittent - for Wabagishik, modified operations start at larval drift, because they aren't too mobile before that. Even with a 20cm water fluctuation the developing larvae could be stranded. Larval drift does occur at night, so that note in the Marter table should remain.

My understanding following the April 11th meeting was that these changes would be made. DFO is unable to accept the Marter OP spawning tables as they currently exist in the plan dated July 2012 as there would likely be impacts to fish and fish habitat.

Thanks

Kelly

Kelly Eggers

Fisheries Protection Biologist | Biologiste de protection des pêches

Fisheries and Oceans Canada | Pêches et Océans Canada
Central and Arctic Region | Région Centrale et de l'Arctique

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Kelly.Eggers@dfo-mpo.gc.ca

From: Stephanie Hodsoll [<mailto:SHodsoll@xeneca.com>]

Sent: July 11, 2013 8:54 AM

To: Eggers, Kelly; McDonald, Lauren (MNR); Walker, Shaun (MNR); Muriel Kim

Cc: Kristi Beatty; Grace Yu; Ed Laratta; Ciara DeJong; Mark Holmes; White, Rosanna (ENE)

Subject: Marter Spawning Operating Restrictions Tables

Hi Kelly & Lauren,

Regarding the action item as discussed on last Friday's Marter call:

ACTION: GY to send spawning tables and operating plans to KB to be updated and sent to SW and KE.

The approach we have taken (detailed below) will see Xeneca submitting the final Marter ER using our (current & unchanged) degree proposal. The action item above was based on the idea that Xeneca might submit the final ER with a degree-day proposal. As we are sticking with an unchanged method, the tables do not need to be updated at this time. I have attached Grace's original email from April 11 with the original spawning tables for your reference.

MORE INFO:

Below is an excerpt from my email to Lauren/Rosanna on May 3/May 7, regarding the approach adopted by Xeneca:

Regarding the current degree versus degree-day (cumulative thermal units) discussion, we would like to go ahead and put out the Marter EA with our current degree proposal.

We are trying very hard to get the final EA out, and changing to the degree-day methodology would only contribute to further delays.

However, we propose that during permitting and Water Management Planning, we work with you and Kristi at ORMG to see what the degree-days proposal would look like. We could change to a degree-days approach at that time if it is appropriate.

Rosanna's advice on this was: "I would recommend that all aspects of this proposal that are known at the time of ER submission, such as the fact that the facility will be operated as Run of River during the spawning periods dictated by this thermal approach, should be included in the final ER. The final ER should show the work that has been done to date on this matter (so keeping what has already been done in there and including MNR's proposed changes from their previous comments) and then also stating that the details of the final thermal based approach will be agreed to with MNR and DFO at the permitting stage."

Thanks,
Steph

Stephanie Hodsoll
Stakeholder Relations
Xeneca Power Development
5255 Yonge St., Suite 1200
North York, ON M2N 6P4
(416) 590-3077

Canadian Environmental Assessment Agency



Canadian Environmental
Assessment Agency

Agence canadienne
d'évaluation environnementale

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Suite 907
Toronto, Ontario
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55, avenue St-Clair Est
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M4T 1M2

July 12, 2010

Patrick Gillette
President and CEO
Xeneca Power Development Inc.
5160 Yonge Street, Suite 520
Toronto, Ontario
M2N 6L9

Dear Mr. Gillette,

Re: Waterpower Projects

Thank you for your letter and project overviews received on June 30, 2010 related to the ten waterpower projects, with generating stations proposed at 18 different locations. Project overviews have been received for the following waterpower projects: Allen and Struthers; Big Eddy; Ivanhoe River; Kapuskasing River; Larder and Raven; Marter Township; Serpent River; Vermillion River; Wanatango Falls; and Half Mile Rapids. From your cover letter, 19 different locations with awarded Feed-In-Tariff contracts were mentioned; however, 18 different locations resulted from the preliminary review of all the project overviews. Your clarification regarding this would be much appreciated.

The *Canadian Environmental Assessment Act* (the Act) may apply to federal authorities when they contemplate certain actions or decisions in relation to a project that would enable it to proceed in whole or in part. A federal environmental assessment may be required when a federal authority: is the proponent of a project; provides financial assistance to the proponent; makes federal lands available for the project, or issues a permit, licence or any other approval as prescribed in the *Law List Regulations*.

Based on our telephone conversation with Mark Holmes (Xeneca Power Development Inc.) on July 6, 2010, it is our understanding that the proposed waterpower project at the Half Mile Rapids site on the Petawawa River is undergoing a federal environmental assessment which is being conducted by National Defence Canada (DND). Because this project is not subject to the Ontario *Environmental Assessment Act*, the Canadian Environmental Assessment Agency does not have a role in this project. We encourage you to continue to work with DND regarding the waterpower project at Half Mile Rapids.



In the case of projects that are subject to the Ontario *Environmental Assessment Act*, if there is uncertainty as to whether the Act may also apply, the Agency can help proponents answer this question. For projects that are subject to the Act, the Agency will act as the federal environmental assessment coordinator (FEAC) and facilitate the involvement of the federal authorities in a co-ordinated assessment aimed at meeting all agencies' needs simultaneously.

In order for the Agency to undertake either of these roles, it must have a project description that can be distributed to various federal authorities to determine their interest in the project. It is recognized that at the early stages of the planning process, there may not be much detailed information to provide. However, proponents should try to provide some information on:

- the nature of the project and its location;
- federal decisions which may be made in relation to the project;
- whether federal funding is being contemplated or federal lands are required.

To better assist proponents, the Agency has developed an Operational Policy Statement, which provides guidance in preparing project descriptions. This is available on the Agency's website at:

http://www.ceaa-acee.gc.ca/013/0002/ops_ppd_e.htm

If your purpose in sending us notification of your project is to determine whether the *Canadian Environmental Assessment Act* applies, please be aware that simple notification will not be sufficient. A project description will be required for the above listed projects except for the waterpower project at Half Mile Rapids on the Petawawa River.

Important Note: Please be aware that release of documents to the public may be part of the EA process. Information provided by you related to the EA for these projects will be part of the Canadian Environmental Assessment Registry and will be made available to members of the public, if requested. A package with additional information will be provided to you upon submission of the project description. Should you provide any documents that contain confidential or sensitive information that you believe should be protected from release to the public, please contact the undersigned to obtain an Exclusion Form. This Form can be used to identify the information to be considered for exclusion from the Canadian Environmental Assessment Registry and the rationale for the exclusion.

If you have any questions regarding any of the above, please contact the undersigned at 416-952-1585 or by email at amy.liu@ceaa-acee.gc.ca.

Sincerely,

Original Signed By:

Amy Liu

Project Manager

Copy: Mark Holmes, Xeneca Power Developments Inc.

[REDACTED]

From: Davis,Stephanie [CEAA] [REDACTED]
Sent: September-12-11 4:53 PM
To: Karen Fortin
Cc: Environmental Assessment Information
Subject: Federal contacts for Marter

Categories: Red Category

Karen,

I have collected the responses for the FCR and identified the federal contacts for the Xeneca Marter proposal. Can you please see that anyone that is missing is added to the distribution list? I have included the addresses of people who are not yet on the list below.

I have emailed them regarding the meeting this Thursday and have asked that they get in touch if they are joining.

Stephanie

Kelly Eggers - Dept Fisheries and Oceans

Lisa McDonald - Transport Canada

Kitty Ma - Health Canada [REDACTED]

Sheryl Lusk - Environment Canada [REDACTED]

Angela Donato - Natural Resources Canada. [REDACTED]

Stephanie Davis, BEng, CEnv, LEED AP

Project Manager | Gestionnaire de projets

Canadian Environmental Assessment Agency | Agence canadienne d'évaluation environnementale

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Government of Canada | Gouvernement du Canada

Scoping Document for the Federal Screening of the
**Marter Township (Blanche River) Hydroelectric
Generating Station**

Prepared by the
Federal Environmental Assessment Team
October 2011

1.0 INTRODUCTION

1.1. PROJECT SUMMARY

This project summary is based on the information provided in the August 2011 project description (*Project Description: Marter Township (Blanche River) Hydroelectric Generating Station*), prepared by Xeneca Power Development Inc. (Xeneca).

Xeneca is proposing to construct and operate a 2.1 MW run-of-river with modified peaking hydroelectric generating station on the Blanche River, located in the Township of Marter, approximately 9km north of the Town of Englehart. Site preparation activity is planned to commence in August 2012, with construction of the proposed facility scheduled to take place between 2012 and 2014 and in-service status expected by October 2014.

Two development options for the proposed project are currently being considered by Xeneca: Option 1 would capture a surveyed gross head of 17.5 m and Option 2 would capture a surveyed gross head of 12.5 m. The two proposed dam locations are separated by a distance of 80 m. The conceptual development for both options would incorporate the use of a 30 m spillway dam; however, Option 1 would have a higher dam. In both options, a penstock situated on the west shore of the river would conduct flows from the river to a powerhouse intake, eventually discharging into a tailrace back to the Blanche River. The powerhouse would have a footprint of approximately 120 m² and would be housed with a single Pit/Bulb Kaplan turbine. For Option 1, the penstock length would be 200 m, compared to 120 m for Option 2. Based on preliminary hydrological information, the proposed project would result in the flooding of approximately 21.7 ha or 7.9 ha of riparian lands, respectively, up to 2.4 km or 1.68 km upstream of the spillway dam, respectively.

Access to the proposed site would require a new road to be constructed from an existing local road to the powerhouse (approximately 0.5km) and to the spillway dam (approximately 130 m). The proposed project would connect to the electrical grid through Kirkland Lake Transformer Station via a new 500 m long, 44 kV connection to a feeder located west of the site. The power line would be supported by wooden poles and the required right-of-way for the power line corridor would extend from 10-30 m, depending on site characteristics. One pad-mounted transformer would be required.

1.2. FEDERAL REGULATORY REQUIREMENTS

The *Navigable Waters Protection Act (NWPA)*, administered by Transport Canada (TC), prohibits the construction or placement of any "works" in navigable waters without first obtaining approval. The proposed dam and related infrastructure may cause a significant interference to navigation and therefore requires an approval under section 5(1)(2) of the *NWPA*.

Fisheries and Oceans Canada (DFO) is responsible for the administration of the habitat provisions of the *Fisheries Act*. This act prohibits the harmful alteration, disruption or destruction of fish habitat (Section 35), the destruction of fish by means other than fishing (Section 32), and requires sufficient flow of water over and below an obstruction for the safety of fish (Section 22). The dam itself will result in the destruction of fish habitat and, without properly installed measures, obstruction of safe upstream and downstream fish migration. Dam operation may also result in the alteration of flows and therefore has the potential to impact spawning, nursery and rearing fish habitats both upstream and downstream. As such, an authorization(s) under subsection 35(2) of the *Fisheries Act* will be required. Furthermore, the possible use of explosives and other construction-related impacts, as well as the ability of fish to enter turbines during operation, can potentially destroy fish by means other than fishing and therefore an authorization(s) under Section 32 of the *Fisheries Act* may be required.

Regarding the alteration of flows, it is a requirement of the *Fisheries Act* subsection 22(1) that sufficient flow of water be provided over the dam spillway or crest, with connecting sluices into the river below, to permit the safe and unimpeded descent of fish. It is also a requirement under subsection 22(3) that water be permitted to escape to the river-bed below the dam for the safety of fish and the flooding of spawning grounds to such depth as necessary for the safety of ova deposited thereon. In addition, Section 20 addresses obstructions and requires, where necessary, that a fish-pass be provided and maintained by the owner of the obstruction, to permit the free passage of fish through it.

1.3. CANADIAN ENVIRONMENTAL ASSESSMENT ACT

The *Canadian Environmental Assessment Act* (CEAA) applies when federal authorities contemplate certain actions or decisions in relation to a project that would enable the project to proceed in whole or in part. An environmental assessment (EA) pursuant to CEAA may be required when a federal authority:

- a. is the proponent of a project;
- b. provides financial assistance to the proponent;
- c. sells, leases or otherwise disposes of federal lands; or
- d. issues a permit, license or any other approval as prescribed in the *Law List Regulation*

The aforementioned regulatory approvals required under the NWP and *Fisheries Act* are *Law List Regulation* triggers under CEAA. As such, TC and DFO have confirmed that they will require a screening-level EA to be completed for the project.

The federal review team (FRT) for the Marter Township (Blanche River) Hydroelectric Generating Station project is as follows:

Responsible Authorities (RAs)

Federal authorities requiring an EA of the project

- Transport Canada
- Fisheries and Oceans Canada

Expert Federal Authorities (FAs)

Federal authorities in possession of specialist or expert information that may assist in the EA

- Environment Canada
- Health Canada
- Natural Resources Canada

Federal Environmental Assessment Coordinator (FEAC)

Responsible for coordinating review activities of RAs and FAs in accordance with Section 12 of CEAA

- Canadian Environmental Assessment Agency (the Agency)

Contact information for the FRT is provided in Appendix A.

As detailed under subsection 14 of CEAA, the screening-level EA process includes completion of a screening study, preparation of a screening report and, where applicable, the design and implementation of a follow-up program. Based on authority provided to RAs in subsection 17(1) of CEAA, the RAs for the Marter Township (Blanche River) Hydroelectric Generating Station project are delegating the responsibility of preparing the screening report, including completing all necessary technical studies required to support the report, to Xeneca and/or their qualified consultant(s). In order to complete the CEAA process, the EA screening report must be submitted for review and approval by the RAs. The screening report must contain enough information to be clear and understandable as a stand-alone document and which will constitute the basis for the RAs' decision under section 20 of CEAA.

The proponent is requested to submit the screening report and all supporting technical studies to the Agency in its capacity as FEAC. The Agency will distribute the screening report and supporting documentation to the FRT for review and comment. Based on content received, the RAs may request revisions to the screening report. Once the screening report is complete to the satisfaction of the RAs, the RAs will use the information contained in the screening report to make a determination on the significance of environmental effects.

1.4. FEDERAL/PROVINCIAL COORDINATION

The Marter Township (Blanche River) Hydroelectric Generating Station proposal is also subject to an environmental screening process in accordance with the Ontario Waterpower Association Class Environmental

Assessment (Class EA) for Waterpower Projects. As such, in accordance with the *Canada-Ontario Agreement on Environmental Assessment Coordination (November 2004)*, the proponent should aim towards preparing a single EA screening report that meets both federal and provincial EA requirements.

The proponent should ensure that they understand the differences between the provincial and federal EA processes, and should ensure that all CEAA requirements are fulfilled prior to releasing the screening report for final review as part of the provincial EA process. Should the proponent decide to proceed to the Notice of Completion stage of the provincial EA process prior to satisfying CEAA requirements, it could result in significant delays to the federal EA process. Questions regarding the coordination of the federal and provincial processes should be directed to the Agency.

2.0 SCOPE OF ASSESSMENT

When an EA is triggered under CEAA, RAs are required to establish the scope of project and scope of factors to be taken into consideration pursuant to sections 15 and 16 of CEAA. Scoping establishes the boundaries of an EA and focuses the assessment on relevant issues and concerns.

The RAs have prepared this Scoping Document to provide direction to the proponent on the issues that **must be addressed in the screening report prior to completion of the EA**. Please note, however, that the information contained in this document does not limit the RAs from requesting additional information or details as they see fit.

The FRT understands that the proposed project description, as described in Section 1.1 above, may be refined following the results of additional field investigations and consultations by Xeneca. Updated project description information must be provided to the FRT by Xeneca as it becomes available and **prior to the RAs making a s.20 CEAA determination**. Changes to the project description could result in changes to the scope of assessment required by the RAs and changes to the guidance provided in this document. In order to prevent unnecessary delays, it is imperative that Xeneca advise the FRT of any changes to the project description as soon as possible.

2.1. SCOPE OF PROJECT

In accordance with section 15(1) of CEAA, the scope of project for the proposed Marter Township (Blanche River) Hydroelectric Generating Station project has been identified as: *all physical works and activities associated with the construction and operation of the proposed hydroelectric generating facility, including the spillway dam, penstock, powerhouse and tailrace, associated storage sites, working areas, platforms, new transmission line and associated structures, new access roads and any other works or undertakings directly associated with the hydroelectric project, including those that are temporary.*

The RAs have not included “decommissioning” of the new Marter Township (Blanche River) development as part of the scope of the project since the proponent has not proposed any decommissioning works for the new development. It is anticipated that the structure will have an approximate life span of 50 to 100 years and, as such, details regarding decommissioning works are not available at this time. If and when decommissioning is required, such works will be subject to an EA as per regulations current to that time.

The screening report must provide a complete description of all proposed project components, and the associated physical works and activities, with an approximate schedule (timing, frequency, duration). The report must also clearly state who is responsible for the ownership, construction and operation of each work or activity. The level of detail should be appropriate to the scale and complexity of the project and to the sensitivity of its location. Reference maps and/or site plans should be attached to indicate the project location and/or its key features.

2.2. SCOPE OF FACTORS

CEAA defines “*environment*” as the components of the Earth, including:

- a) land, water and air, including all layers of the atmosphere;
- b) all organic and inorganic matter and living organisms; and
- c) the interacting natural systems that include components referred to in paragraphs (a) and (b).

In respect of a project, pursuant to CEAA "environmental effect" means:

- a) any change that the project may cause in the environment, including any change it may cause to a listed wildlife species, its critical habitat or the residences of individuals of that species, as those terms are defined in subsection 2(1) of the *Species at Risk Act*,
- b) any effect of any such change referred to in paragraph (a) on
 - i. human health and socio-economic conditions,
 - ii. physical and cultural heritage,
 - iii. the current use of lands and resources for traditional purposes by aboriginal persons, or
 - iv. any structure, site or thing that is of historical, archaeological, paleontological or architectural significance, or
- c) any change to the project that may be caused by the environment.

Section 16 (1) of CEAA requires the following factors be considered in a screening-level EA:

- a) the environmental effects of the project, including the environmental effects of malfunctions or accidents that may occur in connection with the project and any cumulative environmental effects that are likely to result from the project in combination with other projects or activities that have been or will be carried out;
- b) the significance of the effects referred to in paragraph (a);
- c) comments from the public that are received in accordance with the Act and the regulations;
- d) measures that are technically and economically feasible and that would mitigate any significant adverse environmental effects of the project; and
- e) any other matter relevant to the screening that the responsible authority may require be considered.

In accordance with section 16(3) of CEAA, sections 2.2.1 – 2.2.10 of this Scoping Document outline the scope of factors that will be taken into consideration pursuant to CEAA section 16(1) requirements. Consistent with the overall scoping guidance provided in this document, the RAs may revise the scope of factors and/or identify additional factors as the EA progresses.

2.2.1. Spatial and Temporal Boundaries

The spatial boundaries of the EA are the geographical area within which an environmental component is likely to be affected by the project during construction and/or the operational phases (i.e. zone of influence), and for each component where a measurable effect is predicted for the cumulative effects assessment. The temporal boundaries of the EA are the timeframe over which an environmental component could be impacted by the project.

2.2.2. Environmental Components

Potential interactions between project components and environmental components must be identified and considered as part of the screening. The scope of factors to be considered in the assessment should include, but may not necessarily be limited to, potential effects (including cumulative effects) on the following environmental components:

- surface geology and soils
- surface water quality and quantity
- ground water quality and quantity
- air quality and climate change

- fish and fish habitat
- vegetation and wetlands
- wildlife and wildlife habitat – including migratory birds
- species at risk – including those species listed under the *Species at Risk Act*

In keeping with the definition of “environmental effect” as defined by CEEA, the scope of factors to be considered should also include the effect of any change that the project may cause in the environment on:

- human health and socio-economic conditions, including effects to navigation
- physical and cultural heritage
- the current use of lands and resources for traditional purposes by Aboriginal persons
- any structure site or thing that is of historical, archaeological, paleontological or architectural significance

Appendix B provides additional information regarding environmental components and how they should be addressed for this project. For each environmental component that has the potential to interact with the project, a description of the existing conditions must be provided in the screening report. Special consideration should be given to the level of detail required for each environmental component. The level of detail should be appropriate to the scale and complexity of the project and to the sensitivity of its location.

It is important to note that a sufficient level of baseline information must be gathered in order to inform the screening process and to allow RAs to make a s.20 CEEA decision. Baseline data must be collected for the entire zone of influence for the proposed project. Reports and consultations required to establish baseline conditions must be sufficiently completed prior to finalizing the screening report.

2.2.3. Environmental Effects

The definition of environmental effect according to CEEA is provided in section 2.2 above, and a listing of “Environmental Components to be Assessed” is included in Appendix B. The environmental components considered in the CEEA screening should include, but not necessarily be limited to, those identified in Appendix B. For each environmental component identified as having the potential to interact with project components, the screening report must analyze and describe the likely and potential environmental effects, including cumulative effects and the effects of accidents and malfunctions. **A sufficient level of baseline information will be required in order to complete this analysis.**

Likely and potential environmental effects should be considered and described using the following criteria in order to facilitate significance determinations: magnitude, geographic extent, duration, frequency of occurrence, permanence or reversibility of the effects, and ecological context. Effects must be identified for all project phases that were identified under Section 2.1 [Scope of Project] above.

2.2.4. Accidents and Malfunctions

The screening report should identify any accidents and malfunctions that may occur in connection with the project. This should include the assessment of potential environmental effects associated with accidental spills (e.g. fuel, oils, hydraulic fluids, etc.), debris clogging or icing up of flow control gates or outlet structures, dam failure, etc., as well as other accidents and malfunctions that could be expected to occur, such as power failures and pump failures. Emphasis should be placed on accidents and malfunctions that are reasonably plausible. The effects of accidents and malfunctions on each environmental component should be considered as well as the contribution to cumulative effects.

2.2.5. Effects of the Environment on the Project

The screening should assess the environmental effects of geological, climatic and other natural phenomena on the project, including effects associated with:

- extreme drought, flooding, or rainfall, including that associated with climate change, and any associated geophysical effects (e.g. increased erosion potential, changes to bank stability in reservoir areas, abnormally elevated/depressed groundwater levels, etc.); and,
- other extreme events (e.g. ice storms, river ice formation and jamming, forest fires, tornados or earthquakes, etc.).

The proponent must demonstrate that the project design is sufficiently robust to accommodate any expected changes in extreme flows, precipitation and temperature without potential failure. Emphasis should be on environmental conditions that are reasonably plausible, but should not be limited to events that occur on a regular basis.

2.2.6. Mitigation Measures

For each potential adverse environmental effect, including cumulative effects (see Section 2.2.7 below), technically and economically feasible mitigation measures must be identified. The screening report must predict the effectiveness of those mitigation measures and identify any residual effects that may persist after implementation. The screening report should identify compensation measures designed to offset any loss of fish habitat, including a monitoring program to evaluate the success of those measures.

Where mitigation cannot be fully described until the detailed design stage, the principles and criteria upon which such mitigation will be developed should be provided. The screening report must clearly state who is responsible for implementing each mitigation measure proposed.

2.2.7. Cumulative Effects

A cumulative effects assessment must be completed as part of the screening. The cumulative effects assessment must consider potential residual environmental effects of the proposed project that have the potential to overlap in time and space with residual environmental effects of other past, present and future¹ projects or activities. This includes other hydroelectric generating stations located or to be located on the Blanche River watershed.

All potential residual environmental effects must be included in the cumulative effects assessment (i.e. residual effects do not need to be significant on their own to be considered). In conducting the analysis, consideration should be given to the length of time over which the residual environmental effects occur, not just the period of time during which the project will be constructed/operated.

2.2.8. Significance of Effects

CEAA requires that RAs determine whether the project is likely to cause significant adverse environmental effects, including those associated with cumulative effects. Only environmental effects that are both likely and adverse must be considered in determining significance. Conclusions reached in this regard must be systematically documented in the screening report.

While the final determination of significance rests with RAs, the information provided by the proponent in the screening report will be used to help make this decision. The screening report must make conclusions on the likely significance of adverse environmental effects associated with the project. Conclusions must be clearly supported by and traceable from the description of the existing environment, the description of project activities, the potential project-environment interactions (environmental effects) and the predicted effectiveness of mitigation measures to be applied.

The prediction of significance should be based on such factors as: magnitude, geographic extent, duration, permanence/reversibility, and ecological context. When drawing conclusions about the significance of impacts, reference should be made to applicable federal or provincial guidelines.

¹ Reasonably foreseeable future projects or activities should be considered. "Reasonably foreseeable" is defined as having already been proposed, approved, or advancing through the regulatory approvals process.

2.2.9. Aboriginal and Public Comments

The screening report must clearly describe any public and Aboriginal consultation that was completed related to the proposed project. Concerns raised with respect to the proposal, including any impacts to current and traditional activities being practiced by any aboriginal peoples near the project site, must be identified. Actions taken by the proponent to address concerns raised must be discussed in detail. Further direction regarding Aboriginal consultation requirements will be detailed to Xeneca under separate letter.

Should it be determined at any stage during the screening that additional public participation is required that has not been adequately addressed through public consultation periods conducted by the proponent (voluntary or as part of any other process), the RAs may initiate a formal public participation process according to section 18(3) of CEAA.

2.2.10. Monitoring and Follow-up

Pursuant to section 38(1) of CEAA, consideration must be given to the need for a follow-up program. The purpose of a follow-up program is to confirm predictions made during the assessment and to ensure the effectiveness of mitigation measures considered. The RAs will not be in a position to consider the need for a follow-up program until it has examined the proponent's draft screening report. In the event that an adaptive management approach is proposed as a component of mitigation to address unresolved concerns, the need for implementing a follow-up program should be identified by the proponent in consultation with the RAs. Nevertheless, the requirement for a follow-up program will be determined as the screening proceeds.

Regardless of the requirement to complete a follow-up program pursuant to section 38(1) of CEAA, the screening should address the need for a monitoring program to ensure compliance with identified mitigation measures. In order to ensure effective implementation of the mitigation measures identified in the screening report, plans and procedures proposed for quality control and assurance should be described, including technical specifications for mitigation works, inspection activities during construction and operation; and, procedures for resolving issues and addressing unforeseen effects that may arise during construction or operation. These plans and procedures should also include, but not be limited to, environmental protection plans, emergency/contingency plans, construction environmental specifications, construction special provisions, operational maintenance plans, etc.

APPENDIX A – FEDERAL REVIEW TEAM CONTACT INFORMATION

Agency	Contact Information
Canadian Environmental Assessment Agency	Stephanie Davis, Environmental Assessment Analyst M: 55 St. Clair Avenue East, Suite 907 Toronto, ON M4T 1M2 P: 416.954.7334 E: stephanie.davis@ceaa-acee.gc.ca
Transport Canada	Lisa McDonald, Environmental Officer M: 4900 Yonge Street, 4 th Floor (PHE) North York, ON M2N 6A5 P: 416.952.0475 E: lisa.mcdonald@tc.gc.ca
Fisheries and Oceans Canada	Kelly Eggers, Habitat Biologist M: 28 Waubeek Street Parry Sound, ON P2A 1B9 P: 705.746.2196 E: kelly.eggers@dfo-mpo.gc.ca
Environment Canada	Sheryl Lusk, Environmental Assessment Officer M: 4905 Dufferin Street Toronto, ON M3H 5T4 P: 416.739.5962 E: sheryl.lusk@ec.gc.ca
Health Canada	Kitty Ma, Regional Environmental Assessment Coordinator M: 180 Queen Street West, 10th Floor Toronto, Ontario M5V 3L7 P: 416.954.2206 E: kitty.ma@hc-sc.gc.ca
Natural Resources Canada	Angela Donato, Environmental Assessment Officer M: 580 Booth Street, 3 rd Floor, Room A7-4 Ottawa, ON K1A 0E4 P: 613.947.5861 E: angela.donato@nrcan-rncan.gc.ca

APPENDIX B - ENVIRONMENTAL COMPONENTS TO BE ASSESSED

Surface Geology and Soils

The screening report should describe surface geology and soils in the study area, and should identify any impacts the project may have on the following factors:

- terrain and topography (e.g. excavation and fill requirements, excess/waste rock/soil transportation and disposal, proposed temporary and permanent disposal sites, site restoration, etc.)
- soil quality, including contaminated sites and spills
- sedimentation, soil erosion, shoreline or riverbank erosion processes, hazard lands or unstable lands subject to erosion
- soil types and potential for acid rock drainage (ARD) and metal leaching (ML)

If and where the project will involve the confinement, removal or remediation of contaminated soils or sediments, information on the containment, disposal or treatment method, including the potential environmental effects and risks associated with the method, should be provided.

Surface Water Quality and Quantity

The screening report should identify the name, location and characteristics of any water bodies in the project area, and should describe the potential impact of the project on these watercourses, including impacts associated with:

- potable water uses
- recreational water uses
- head pond creation and subsequent flooding of both river and lake environments²
- predicted changes to normal/extreme water levels, flows and movement
- predicted changes to the normal/extreme thermal/ice regime
- installation, modification or removal of watercourse crossing structures
- accidental spills, erosion and sedimentation, concreting works³ and repairs⁴, locally generated contaminants entering waterbodies (for example fugitive dust, engine emissions, smoke, ash), etc.
- siting and management of temporary and permanent waste rock/soil disposal areas and management of excess materials from excavations
- acid rock drainage (ARD) from exposed and/or excavated bedrock (identified as having a net acid generating potential), including specific management/disposal options of any materials having a potential for ARD
- methyl mercury generated in created head pond reservoirs⁵

The analysis should describe potential effects on the water quality and quantity of receiving water bodies during both the construction and operation phases. The screening report should also indicate whether any of these watercourses are navigable, and confirmation must be provided regarding the need for any *Navigable Waters Protection Act* approvals.

² A head pond would be created by raising water levels upstream of the proposed dam, possibly flooding shorelines and increasing the normal depth of the river, potentially impacting existing aquatic and shoreline ecosystems. Any existing near shore wetlands and adjacent terrestrial habitat affected by water level changes are potentially impacted.

³ Best practices pertinent to concreting near or in waterbodies should be adopted. When setting water quality targets, please refer to an applicable standards set by Ontario's Provincial Water Quality Objectives (PWQOs) and the CCME's Canadian Water Quality Objectives regarding TSS, turbidity and pH.

⁴ Operation and maintenance phase only

⁵ Methyl mercury formation depends on a number of factors, but is primarily related to the change in headpond water level and volume, amount of organic material present on/in flooded soils, oxygen levels and temperature. The proponent should fully characterize mercury levels in sediments, the water column (low level analysis), and fish tissue; and, evaluate potential changes in mercury levels due to the project and proposed mitigation and monitoring.

Hydrogeology, Ground Water Quality and Quantity

The screening report should provide a description of groundwater resources in the study area (including the depth of the water table), and should indicate whether groundwater in the area is currently being used as a source of potable water. The report should identify potential impacts of the project during construction and operation phases on groundwater quality and quantity, including impacts associated with:

- potable water uses
- accidental spills and other project effluents
- acid rock drainage and methyl mercury formation
- changes to normal/extreme groundwater levels, flux and movement
- changes to normal infiltration/recharge and seepage/upwelling zones
- fluctuating water levels on groundwater elevation and resultant impacts on surrounding areas, including any potential for contaminant migration

Air Quality and Climate

The screening report should provide a description of air quality in the vicinity of the project, and should indicate the potential impact of the project on air quality. The discussion of potential effects should address the local and regional impacts associated with the construction and operation phases, such as:

- emissions of toxic substances including engine exhaust emissions
- dust and smoke emissions
- greenhouse gas emissions
- contributions to formation of local and regional smog, fog, thermal effects, icing and micro climate

The assessment of air quality effects should consider potential adverse impacts on sensitive local receptors.

Fish and Fish Habitat

In conjunction with the section on surface water, the screening report should indicate the presence of fish and fish habitat in the study area, and should identify any impacts the project may have, including impacts associated with:

- aquatic species at risk listed under the federal *Species at Risk Act* (SARA)
- changes in surface water, groundwater and surface geology and soils (see above components) that could result in effects to fish and/or fish habitat (including uptake of mercury in fish and effects on humans consuming these resources)
- barriers to safe upstream and downstream fish passage
- fish injury or mortality associated with blasting, impingement, entrainment, etc.

When drawing conclusion about the significance of impacts, consideration should be given to DFO's *Policy for the Management of Fish Habitat* (1986).

Vegetation and Wetlands

The screening report should provide a description of vegetation communities and wetlands in the study area, including any designations of importance (e.g. Environmentally Significant Areas, Areas of Natural and Scientific Interest, Provincial or locally significant wetlands, etc.). The screening report should identify any impacts the project may have on vegetation and wetlands during construction and operation phases, including impacts associated with:

- removal of vegetation

- noxious weed and vegetation control (e.g. chemical spray, mechanical)
- infilling, flooding, or de-watering of vegetation/wetland communities
- changes to wetland ecosystem and function, including changes to hydrology and hydrogeology due to head pond creation and modifications to surface drainage patterns
- effects on soils, terrestrial vegetation and wetlands due to disposal of waste rock/soils (and viability of site rehabilitation), including any effects of acid rock drainage
- plant species at risk listed under SARA

The ecological functions of any vegetation and wetland communities and wetland hydrology potentially impacted by the project should be described, and potential impacts on those functions should be noted. The screening report should indicate whether the project is located within an area where wetland loss has reached critical levels.

Wildlife and Wildlife Habitat (including Migratory Birds)

In conjunction with the section on vegetation and wetlands, the screening report should provide a description of wildlife species and their habitat that are present in the study area at any time during their life cycle, including species that may only use the study area on a seasonal basis. The proponent must be sure to consider potential impacts of the project on migratory birds. The screening report should identify any impacts the project may have on wildlife communities or their habitats during construction and operation phases, including:

- species diversity, abundance and movement
- terrestrial species at risk listed under SARA (including those species observed in the zone of influence of the project and those species with habitats ranging into the project area)
- wildlife habitat abundance, availability, diversity and function (e.g. corridors, breeding, staging and foraging areas), including seasonal uses and specialized habitats used by species at risk

Species at Risk

When a federal EA is carried out on a project that may affect a listed species or its critical habitat, SARA requires that adverse environmental effects be identified, mitigation measures be taken to avoid or lessen adverse effects, and environmental effects monitoring be conducted.

In conjunction with the sections on vegetation, wildlife and fish, the screening report should indicate any federally and/or provincially listed species at risk that are known to or may be expected to use the site or adjacent lands due to the presence of suitable habitat. This includes those species listed under the SARA. At a minimum, the Natural Heritage Information Centre database maintained by the Ontario Ministry of Natural Resources in Peterborough should be consulted for known occurrences of species at risk in the area. Environment Canada - Canadian Wildlife Service⁶ should also be consulted to determine if occurrences or ranges of any endangered, threatened, and special concern species overlap with the project's zone of influence.

If there is potential for species at risk to occur at a project site (i.e. previous known occurrence, species range overlap and/or known habitat preference exists), a qualified biologist should conduct a thorough biological inventory of all areas of natural habitat that may be affected by the project and have the potential to support species at risk. The screening report should indicate whether the project activities may have an adverse effect on any species at risk, and also include a substantiated professional opinion on the likelihood of the occurrence of such effects. A strategy should be developed to protect any identified species at risk, with a primary focus on avoidance, and a monitoring program developed in consultation with Environment Canada – Canadian Wildlife Service should be described.

⁶ Species currently listed under SARA can be found at the following web sites: http://www.sararegistry.gc.ca/default_e.cfm and http://www.sararegistry.gc.ca/species/default_e.cfm

Environmental Changes Resulting in Effects on Other Environmental Components

The screening report should identify and address the effect of any change the project may cause in the environment on:

- Human health and socio-economic conditions⁷ – including impacts to navigation, noise and vibrations, drinking water quality and quantity, country foods (including those harvested by hunting, trapping, fishing, gathering or small-scale farming), air quality, recreation, cottaging and tourism, game and fishery resources, electric and magnetic fields emitted by transmission lines, property flooding/flood risk to residential structures physical and cultural heritage
- the current use of lands and resources for traditional purposes by Aboriginal persons⁸
- any structure site or thing that is of historical, archaeological, paleontological or architectural significance

⁷ For more information on how to assess noise and vibrations, drinking water quality, country foods, air quality and electric and magnetic fields emitted by transmission lines, please refer to Health Canada's *Useful Information for Environmental Assessment*. This document can be obtained from: http://www.hc-sc.gc.ca/ewh-semt/pubs/eval/environ_assess-eval/index-eng.php

⁸ Consultation with potentially affected Aboriginal persons should be completed in order to gain an understanding of current use of lands and resources used for traditional purposes.

From: Davis,Stephanie [CEAA] <Stephanie.Davis@ceaa-acee.gc.ca>
Sent: October-24-11 10:58 AM
To: pgillette@xeneca.com; Ed Laratta; Tami Sugarman; Kai Markvorsen; Karen Fortin
Cc: McDonald, Lisa; Lusk,Sheryl [Ontario]; Eggers,Kelly; DFO XCA; KittyMa; Donato, Angela
Subject: Marter - Federal Scoping Document
Attachments: 2011-10-20 SCOPING DOCUMENT FOR MARTER TOWNSHIP (BLANCHE RIVER) HYDROELECTRIC GENERATING STATION NEATS 31296.pdf

Patrick,
Please find attached the scoping document for the federal screening of the proposed Marter Township (Blanche River) hydroelectric generating station. This document establishes the scope of project and scope of factors to be taken into consideration pursuant to sections 15 and 16 of Canadian Environmental Assessment Act. It has been prepared to provide direction to Xeneca on federal EA requirements.

The document has been reviewed and approved by all Federal Authorities. Please get in touch should Xeneca have any questions regarding the content.

Regards,
Stephanie

<<2011-10-20 SCOPING DOCUMENT FOR MARTER TOWNSHIP (BLANCHE RIVER) HYDROELECTRIC GENERATING STATION NEATS 31296.pdf>>

Stephanie Davis, BEng, LEED AP

Project Manager | Gestionnaire de projets
Canadian Environmental Assessment Agency | Agence canadienne d'évaluation environnementale
Ontario Region | Région de l'Ontario
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Government of Canada | Gouvernement du Canada

Subject: FW: Wabageshik Rapids - Vermilion River draft environmental report available for review
Attachments: Xeneca - Proponent Notification of Terminated Screenings.pdf

From: Liu, Amy [CEAA] [REDACTED]
Sent: Friday, August 10, 2012 3:26 PM
To: Grace Yu; Allen, Paula (ENE); [REDACTED] Selinger, Wayne (MNR); Cobb, Eric (MNR)
Cc: Ed Laratta; Eggers, Kelly; Davis, Stephanie [CEAA]; Blajchman, Amiel [CEAA]
Subject: RE: Wabageshik Rapids - Vermilion River draft environmental report available for review

Hi Grace.

In light of the new Canadian Environmental Assessment Act 2012, the Canadian Environmental Assessment Agency is no longer involved with the hydro projects, proposed by Xeneca Power Development Inc., that are listed in DFO's attached July 12, 2012 letter. Can you please take the CEA Agency contacts off your distribution lists for these projects?

Thank you.

Amy Liu
Project Manager | Gestionnaire de projets
Ontario Region | Agence canadienne d'évaluation environnementale, Région de l'Ontario
55 St. Clair Avenue East, Suite 907 Toronto ON M4T 1M2 | 55 avenue St. Clair Est pièce 907 Toronto ON M4T 1M2
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Government of Canada | Gouvernement du Canada

From: Grace Yu [REDACTED]
Sent: August 10, 2012 2:14 PM
To: Allen, Paula (ENE); Liu, Amy [CEAA]; [REDACTED]; Selinger, Wayne (MNR); Cobb, Eric (MNR)
Cc: Ed Laratta
Subject: FW: Wabageshik Rapids - Vermilion River draft environmental report available for review

Hello everyone,

FYI. The draft Wabageshik ER is available for agency review for a 30 days review period.

Apologies for you were not copied to on the distribution list below.

Thank you.

Best regards,
Grace

Grace Yu (M. Env. Sc., EPt) | Environmental Assessment/Approvals Officer | Xeneca Power Development Inc.
5255 Yonge Street, Suite 1200, North York, ON M2N 6P4
Tel: 416 590 3064 | **Fax:** 416 590 9955 | **Email:** gyu@xeneca.com

From: Kai Markvorsen [REDACTED]

Sent: Friday, August 10, 2012 11:41 AM

To: [REDACTED]

Cc: Ed Laratta; Grace Yu; Stephanie Hodsoil; Tami Sugarman

Subject: Wabageshik Rapids - Vermilion River draft environmental report available for review

Good morning,

On behalf of Xeneca Power Development Inc., please be advised that the draft environmental report for the Wabageshik Rapids Generating Station on the Vermilion River is now available for review.

Xeneca is providing this document for discussion purposes as part of a 30-calendar day draft review period scheduled to end on September 11th, 2012. This review period is intended to allow regulatory agencies a preliminary opportunity to identify issues and concerns prior to the document being finalised and shared with the public for the formal thirty-day public and agency review.

The report can be downloaded from our FTP site using Internet Explorer and the following access information:

Site: [REDACTED]

Username: [REDACTED]

Password: [REDACTED]

Hard copies and/or digital copies on CD have been distributed via courier to those who have requested the report in those formats.

If you have any questions or have difficulty accessing the FTP site please feel free to contact me.

Respectfully,

Kai



Kai Markvorsen B.Sc.

Environmental Consultant

(T) (613) 839-1453 x 248 (C) (613) 277-1164 kmarkvorsen@wesa.ca www.wesa.ca

NOTE: If you are not the intended recipient of this e-mail, please delete it immediately. Unauthorized transmission of this e-mail is prohibited.

Fisheries and Oceans Canada



28 Waubeek Street
Parry Sound, Ontario
P2A 1B9

October 27, 2011

Our file Notre référence
10-HCAA-CA4-02500

VIA E-MAIL

Patrick Gillette
Xeneca Power Development Inc.
5160 Yonge Street
Suite 520
Toronto, Ontario
M2N 6L9

Dear Mr. Gillette:

Subject: Proposal likely to result in impacts to fish and fish habitat. Authorization required under the *Fisheries Act*. Start of environmental assessment under the *Canadian Environmental Assessment Act*

Fisheries and Oceans Canada (DFO) received your project description on August 17, 2011. Please refer to the file number and title below:

DFO File No.: 10-HCAA-CA4-02500
Title: **Waterpower Generating Station, Blanche River, Marter Township**

Your proposal has been reviewed to determine whether it is likely to result in impacts to fish and fish habitat which are prohibited by the habitat protection provisions of the *Fisheries Act* or those prohibitions of the *Species at Risk Act* that apply to aquatic species.*

Our review consisted of:

- Xeneca Power Development Inc. Meeting on 18 FIT Contract Projects, held in Sudbury, Ontario, on April 28th & 29th, 2011,

*Those sections most relevant to the review of development proposals include 20, 22, 32 and 35 of the *Fisheries Act* and sections 32, 33 and 58 of the *Species at Risk Act*. For more information please visit www.dfo-mpo.gc.ca.

- Project Description: Marter Township (Blanche River) Hydroelectric Generating Station, dated August 15, 2011,
- Environmental Approvals Coordination Meeting, held in Kirkland Lake, Ontario, on September 14, 2011.

We understand that you propose to:

- Construct a dam at Krugerdorf Chutes on the Blanche River approximately 9km north of the Town of Englehart,
- Operate a hydropower generating station at Krugerdorf Chutes, which will alter water levels and flows upstream and downstream of the facility.

Based on the above information DFO has concluded that your proposal is likely to result in impacts to fish and fish habitat.

Of particular concern is the potential for your proposal to result in:

- **The harmful alteration, disruption or destruction of fish habitat**, which is prohibited under Section 35 of the *Fisheries Act*.
- **The obstruction of safe fish passage.** Section 20 (1) of *Fisheries Act* states: Every obstruction across or in any stream where the Minister determines it to be necessary for the public interest that a fish-pass should exist shall be provided by the owner or occupier with a durable and efficient fish-way or canal around the obstruction, which shall be maintained in a good and effective condition by the owner or occupier, in such place and of such form and capacity as will in the opinion of the Minister satisfactorily permit the free passage of fish through it.
- **The obstruction of downstream passage.** Section 22(1) of the *Fisheries Act* states: At every obstruction, where the Minister determines it to be necessary, the owner or occupier thereof shall, when required by the Minister, provide a sufficient flow of water over the spill-way or crest, with connecting sluices into the river below, to permit the safe and unimpeded descent of fish.
- **Affects to downstream flows through operating with daily flow modifications.** Section 22(3) of the *Fisheries Act* states: The owner or occupier of any obstruction shall permit the escape into the river-bed below the obstruction of such quantity of water, at all times, as will, in the opinion of the Minister, be sufficient for the safety of fish and for the flooding of the spawning grounds to such depth as will, in the opinion of the Minister, be necessary for the safety of the ova deposited thereon.
- **The mortality of fish.** Section 32 of the *Fisheries Act* states: No person shall destroy fish by any means other than fishing except as authorized by the Minister or under regulations made by the Governor in Council under this Act. Further to this, Section 30 (1) of the *Fisheries Act* states: Every water intake,

.../3

ditch, channel or canal in Canada constructed or adapted for conducting water from any Canadian fisheries waters for irrigating, manufacturing, power generation, domestic or other purposes shall, if the Minister deems it necessary in the public interest, be provided at its entrance or intake with a fish guard or a screen, covering or netting so fixed as to prevent the passage of fish from any Canadian fisheries waters into the water intake, ditch, channel or canal.

In order to be in compliance with Sections 32 and 35 of the *Fisheries Act* you must obtain an authorization(s) from DFO. In most cases the issuance of *Fisheries Act* authorizations is conditional on developing habitat compensation and monitoring plans to ensure there will be no net loss in the productive capacity of fish habitat.

With respect to the remaining habitat protection provisions of the *Fisheries Act* listed above, these can oftentimes be addressed by relocating or redesigning elements of a proposal and/or implementing effective mitigation measures which will reduce impacts to fish and fish habitat.

Please be advised that Section 32 and subsections 35(2), 22(1) and 22(3) of the *Fisheries Act* are included in the list of laws that trigger the *Canadian Environmental Assessment Act* (CEAA). This means that DFO is required to conduct an environmental assessment of your project, as prescribed by CEAA, before deciding to issue an authorization. This process may involve circulating your proposal to other relevant federal departments and making information about your proposal available to the public through the Canadian Environmental Assessment Registry (CEAR). For more information about the CEAR please visit www.ceaa-acee.gc.ca. If, as a result of the environmental assessment under the CEAA, we are satisfied that the project, after taking into account the implementation of any mitigation measures, is not likely to cause significant adverse environmental effects, an authorization under the *Fisheries Act* may be issued.

IMPORTANT NOTE: Information provided by you related to the Environmental Assessment for this project will be part of the Canadian Environment Assessment Registry and will be made available to members of the public, if requested. A package with additional information about these requirements is attached. Please ensure that you review and understand these requirements. Please be aware that release of documents to the public may be part of the CEAA process. Should you provide any documents that contain confidential or sensitive information that you believe could be protected from release to the public, please contact the undersigned to obtain an Exclusion Form. This Form can be used to identify the information to be considered for exclusion from the Canadian Environment Assessment Registry and the rationale for the exclusion.

.../4

In order for us to continue processing your request, please:

- Complete and return the attached Application for *Fisheries Act* Authorization form,
- Provide further information/clarification on the following items:
 - Updated Project Description and operating plan describing details of dam placement, dimensions, and operation (e.g.. development Option 1 vs Option 2 identified in Project Description, identification of zone of influence, etc.),
 - Natural environment characteristics including results of field studies to date,
 - Anticipated fish mortality and proposed mitigation,
 - Cumulative effects of this site related to other existing and proposed sites in the Blanche River watershed,
 - Aboriginal consultation plan,
 - Habitat compensation plan,
 - Please see the *Scoping Document for the Federal Screening of the Marter Township (Blanche River) Hydroelectric Generating Station* for a complete description of the information required to conduct the Environmental Assessment.

Please be advised that any impacts to fish and fish habitat which result from proceeding with your proposal without first obtaining a *Fisheries Act* authorization could lead to corrective action such as enforcement.

If you have any questions, please contact Kelly Eggers at our Parry Sound office at (705) 746-2196 ext. 287, by fax at (705) 745-4820, or by email at Kelly.Eggers@dfo-mpo.gc.ca.

Sincerely,



Carl Jorgensen
Habitat Team Leader, Northern Ontario

Attachments: Application for *Fisheries Act* Authorization
Canadian Environmental Assessment Act (CEAA) Registry s 55
Important Note: CEAA Registry Requirements – Release of Documents.
CEAA Registry Exclusion Form

.../5

Copy: Transport Canada - Lisa McDonald
Canadian Environmental Assessment Agency – Stephanie Davis
Natural Resources Canada – Angela Donato
Environment Canada – Sheryl Lusk
Health Canada – Kitty Ma
OEL-Hydrosys – Tami Sugarman
Xeneca Power Development Inc. – Ed Laratta



APPLICATION FOR *FISHERIES ACT* AUTHORIZATION

Applicant

I, the undersigned, hereby request authorization for the harmful alteration, disruption or destruction of fish habitat and/or the destruction of fish by means other than fishing that will likely result from the works, undertakings, activities or operations related to the proposed development described on this application form. I understand that the *Fisheries Act* Authorization, if granted, is from the Minister of Fisheries and Oceans standpoint only and does not release me from my obligation to obtain permission from other concerned regulatory agencies. If an authorization is granted as a result of this application, I hereby agree to carry out all activities relating to the project within the designated time frames and conditions specified in the Authorization.

Applicants Name: _____
Contact Person, Title: _____
Applicant's Address: _____
Applicant's Telephone No.: _____
Applicant's Fax No.: _____
Applicant's Email: _____

Location of Proposed Development

Nearest community (city, town, village): _____
Municipality, district, township, county: _____
Name of watercourse, waterbody: _____
Longitude and latitude, UTM Coordinates: _____

Description of Proposed Development

The proposed development impacting on fish and fish habitat involves:

Description of Potential Impacts to Fish and Fish Habitat

Impacts to fish and fish habitat resulting from the works, undertakings, operations or activities associated with proposed development described above include:

Applicant Declaration

I solemnly declare that the information provided for the review and assessment of my proposed development for impacts on fish and fish habitat are true, complete and correct, and I make this declaration conscientiously believing it to be true knowing that it is of the same force and effect as if made under oath. This declaration applies to all material submitted as part of this application for *Fisheries Act* Authorization.

Applicant's Signature (and corporate seal): _____

Date:

Important Note:

Canadian Environmental Assessment Act (CEAA) Canadian Environmental Assessment Registry Requirements Release of Documents (Public Access)

Section 55 of the *Canadian Environmental Assessment Act* (CEAA) provides for the establishment of the Canadian Environmental Assessment Registry (CEAR) for the purpose of facilitating public access to records relating to environmental assessments and providing notice in a timely manner of the assessments. The registry consists of two complementary components:

- An internet site – An electronic registry administered by the Canadian Environmental Assessment Agency to which Responsible Authorities contribute specific information about each environmental assessment; and
- Project files – The physical files maintained by the Responsible Authorities during an environmental assessment and which contain records and/or documents that are produced, collected or submitted with respect to an environmental assessment.

There may be some records or information contained within a record and/or document that is provided to a Responsible Authority which might be excluded from the CEAR (i.e., for public disclosure), if it meets the criteria for exclusion as set out in paragraphs 55.5 (1) and (2) of CEAA. Examples of this type of information would be:

- Trade secrets of a third party;
- Financial, commercial, scientific or technical information that is confidential information and is treated consistently in a confidential manner;
- Information the disclosure of which could reasonably be expected to result in material financial loss or gain to you or to prejudice your competitive position;
- Information the disclosure of which could reasonably be expected to interfere with your contractual or other negotiations; and
- Personal information.

A copy of section 55 of CEAA is enclosed for your easy reference. Please note the references made in section 55 to the *Access to Information Act*.

Fisheries and Oceans Canada (DFO), in its role as Responsible Authority under CEAA, must address concurrently, in a manner that meets the spirit of CEAA:

- The proponent's right to protect certain information from public disclosure;
- The proponent's expectation of completing the assessment within a reasonable time frame; and
- The public's right to access the relevant information.

Should you believe that information that you are submitting might qualify for exclusion from the registry, please clearly identify this portion(s) of the information and provide, in writing, the rationale for its exclusion at the time of submission. A "CEAR Exclusion Form", which can be used for this process, is available from the DFO office reviewing the project. The rationale will be reviewed by DFO under section 55 of CEAA to determine if the information should be excluded from public disclosure.

For further information concerning the CEAA process and the public document registry please refer to information on Canadian Environmental Assessment Agency's Internet site at www.ceaa-acee.gc.ca or contact the local CEA Agency Office.

ATTACHMENT:

- SECTION 55 OF CEAA

Canadian Environmental Assessment Act (CEAA)

Canadian Environmental Assessment Registry s. 55

Establishment of Registry

55.

Canadian Environmental Assessment Registry

(1) For the purpose of facilitating public access to records relating to environmental assessments and providing notice in a timely manner of the assessments, there shall be a registry called the Canadian Environmental Assessment Registry, consisting of an Internet site and project files.

Right of access

(2) The Registry shall be operated in a manner to ensure convenient public access to it. This right of access to the Registry is in addition to any right of access provided under any other Act of Parliament.

Copy

(3) For the purpose of facilitating public access to records included in the Registry, in the case of a screening or comprehensive study, the federal environmental assessment coordinator and, in any other case, the Agency shall ensure that a copy of any such record is provided in a timely manner on request.

Internet Site

55.1

Establishment and maintenance

(1) The Agency shall, in accordance with this Act and the regulations, establish and maintain an Internet site to be generally accessible through what is commonly referred to as the Internet.

Contents

(2) Subject to subsection 55.5(1), the Internet site shall include

- (a) within 14 days after the commencement of an environmental assessment, notice of its commencement, except where a class screening report is used under subsection 19(5) or (6);
- (b) an agreement contemplated by subsection 12.4(3);
- (c) a description of the scope of the project in relation to which an environmental assessment is to be conducted, as determined under section 15;
- (d) a statement of the projects in respect of which a class screening report is used under subsection 19(5) or (6);
- (e) any declaration referred to in subsection 19(4) and the report to which it relates or a description of how a copy of the report may be obtained, and any declaration referred to in subsection 19(9);
- (f) notice of termination of an environmental assessment by a responsible authority under section 26;
- (g) notice of termination of an environmental assessment by the Minister under section 27;
- (h) any public notices that are issued by responsible authorities or the Agency to request public input into an environmental assessment;
- (i) notice of a decision of the Minister to refer a project under paragraph 21.1(1)(a);
- (j) where the responsible authority, in accordance with subsection 18(3), gives the public an opportunity to participate in the screening of a project or where the Minister, under paragraph 21.1(1)(a), refers a project to the responsible authority to continue a comprehensive study, a description of the factors to be taken into consideration in the environmental assessment and of the scope of those factors or an indication of how such a description may be obtained;
- (k) the screening or comprehensive study report taken into consideration by a responsible authority for the purpose of a decision under section 20 or 37 or a description of how a copy of the report may be obtained, except where a class screening report is used under subsection 19(5) or (6);
- (l) an environmental assessment decision statement under subsection 23(1) and any request made under subsection 23(2);
- (m) notice of the referral of a project to a mediator or review panel;
- (n) the terms of reference of a mediation or a review panel;
- (o) if the Minister has ordered the conclusion of a mediation under subsection 29(4), notice of the order;
- (p) a report of a mediator or review panel or a summary of the report;
- (q) a response under paragraph 37(1.1)(a) to the report of a mediator or review panel;
- (r) except where a class screening report is used under subsection 19(5) or (6), the decision of a responsible authority, made under section 20 or 37 concerning the environmental effects of the project, and a statement of any mitigation measures the implementation of which the responsible authority took into account in making its decision;
- (s) a notice stating whether or not, pursuant to subsection 38(1), a follow-up program for the project is considered appropriate;
- (t) a description summarizing any follow-up program and its results or an indication of how a full description of the program and its results may be obtained;
- (u) any other information that the responsible authority or the Agency, as the case may be, considers appropriate, including information in the form of a list of relevant documents in which case a description of how they may be obtained shall be provided; and
- (v) any other record or information prescribed under paragraph 59(h.1).

Form and manner of Internet site

(3) The Agency shall determine and notify the public

- (a) what the form of the Internet site is to be and how it is to be kept;
- (b) how records and information are to be included in it;
- (c) what information must be contained in any record referred to in subsection (2);
- (d) what records and information are to be included in the Internet site, in addition to any record referred to in subsection (2);
- (e) when information must be included in the Internet site;
- (f) when information may be removed from the Internet site; and
- (g) how access to the Internet site is to be provided.

55.2

Duty to contribute records - Agency

(1) The Agency shall ensure that the records referred to in paragraphs 55.1(2)(b), (e), (i) and (l) are included in the Internet site.

In the case of mediation or review panel

(2) The Agency shall, in the case of a mediation or an assessment by a review panel, ensure that the records referred to in paragraphs 55.1(2)(c), (g), (h), (m), (n), (o), (p), (q) and (u) and any record or information referred to in paragraph 55.1(2)(v) are included in the Internet site.

Duty to contribute records - responsible authorities

55.3

(1) A responsible authority shall ensure that the records referred to in paragraphs 55.1(2)(a), (f), (j), (k), (r), (s) and (t) and, in the case of a screening or a comprehensive study, the records referred to in paragraphs 55.1(2)(c), (h) and (u) and any record or information referred to in paragraph 55.1(2)(v), are included in the Internet site.

Statement - paragraph 55.1(2)(d)

(2) A responsible authority shall ensure that the statement referred to in paragraph 55.1(2)(d) is included in the Internet site every three months or with any other greater frequency to which it agrees with the Agency.

Time for inclusion of report

(3) A screening report referred to in paragraph 55.1(2)(k) or a description of how a copy of it may be obtained shall be included in the Internet site not later than the decision referred to in paragraph 55.1(2)(r) that is based on the report, unless otherwise authorized by the Agency.

Project Files

55.4

Establishment and maintenance

(1) In respect of every project for which an environmental assessment is conducted, a project file shall be established and maintained, in accordance with this Act and the regulations,

(a) by the responsible authority from the commencement of the environmental assessment until any follow-up program in respect of the project is completed; and

(b) where the project is referred to a mediator or a review panel, by the Agency from the appointment of the mediator or the members of the review panel until the report of the mediator or review panel is submitted to the Minister.

Contents of project file

(2) Subject to subsection 55.5(1), a project file shall contain all records produced, collected or submitted with respect to the environmental assessment of the project, including

(a) all records included in the Internet site;

(b) any report relating to the assessment;

(c) any comments filed by the public in relation to the assessment;

(d) any records relating to the need for, design of or implementation of any follow-up program; and

(e) any documents requiring mitigation measures to be implemented.

General

55.5

Categories of information that may be made publicly available

(1) The Registry shall contain a record, part of a record or information only if

(a) it has otherwise been made publicly available; or

(b) the responsible authority, in the case of a record under its control, or the Minister, in the case of a record under the Agency's control,

(i) determines that it would have been disclosed to the public in accordance with the *Access to Information Act* if a request had been made in respect of that record under that Act at the time the record came under the control of the responsible authority or the Agency, including any record that would be disclosed in the public interest pursuant to subsection 20(6) of that Act, or

(ii) believes on reasonable grounds that it would be in the public interest to disclose it because it is required for the public to participate effectively in the environmental assessment - other than any record the disclosure of which would be prohibited under section 20 of the *Access to Information Act*.

Applicability of sections 27, 28 and 44 of Access to Information Act to third party information

(2) Sections 27, 28 and 44 of the *Access to Information Act* apply to any information described in subsection 27(1) of that Act that the Agency or a responsible authority intends be included in the Registry with any modifications that the circumstances require, including the following:

(a) the information is deemed to be a record that the head of a government institution intends to disclose; and

(b) any reference to the person who requested access shall be disregarded.

Deemed application

(3) This section applies with respect to a responsible authority that is a parent Crown corporation but is not a government institution within the meaning of the *Access to Information Act* as if it were such a government institution.

Protection from civil proceeding or prosecution

55.6

Notwithstanding any other Act of Parliament, no civil or criminal proceedings lie against a responsible authority, the Agency or the Minister, or against any person acting on behalf of them or under their direction, or against a director or officer of a Crown corporation to which this Act applies and no proceedings lie against the Crown, the Agency or any responsible authority, for the disclosure in good faith of any record or any part of a record pursuant to this Act or for any consequences that flow from that disclosure or for the failure to give any notice required under section 27 or 28 of the *Access to Information Act* if reasonable care is taken to give the required notice.

Canadian Environmental Assessment Registry Exclusion Form



Fisheries and Oceans Pêches et Océans
Canada Canada

Ontario Great Lakes Area- Northern Ontario District
28 Waubeek Street
Parry Sound, Ontario P2A 1B9
Ph: 705-746-2196
Fax: 705-746-4820

PLEASE COMPLETE, SIGN AND RETURN THIS FORM TO DFO
Attention: Kelly Eggers

THE DOCUMENT/RECORD REFERENCED IN AND ATTACHED TO THIS
FORM MIGHT CONTAIN INFORMATION THAT QUALIFIES FOR
EXCLUSION FROM THE CANADIAN ENVIRONMENTAL ASSESSMENT
REGISTRY (PUBLIC ACCESS)

Project Name: _____

DFO Reference No(s): _____

Record/Document Name: _____
(attach copy of record/document to this form)

- Information to be Excluded: Whole document
- Part of document - identify parts to exclude in the Document/Record and explain method of identification below (parenthesis, highlights, etc.) or identify in an attachment to this form if insufficient room below).
- _____
- _____
- _____

Rationale for Exclusion: Identified below, OR

Identified in an attachment to this Form

Corporate/Company Name of Proponent (if applicable)

Authorized Representative Name & Title
or Proponent's Name (if individual)
(please print)

Date

Signature

Telephone Number



Fisheries and Oceans Canada
401 King Street West
Prescott, Ontario
K0E 1T0

Our file Notre référence

July 12, 2012

Uwe Roeper,
Chief Executive Officer
Xeneca Power Development Inc.
5255 Yonge Street,
Suite 1200, Toronto, ON
M2N 6P4

Subject: Ivanhoe River: Third Falls and The Chute; Frederick House River: Wanatango Falls; Serpent River: Four Slide Falls and McCarthy Chute; Petawawa River: Big Eddy and Half-Mile; Kapuskasing River: Kapuskasing Lake Outlet, Lapinagam Rapids, Middle Township Buchan and Near North Boundary; Larder River: Larder & Raven; Blanche River: Marter Township; Wanapitei River: Allen & Struthers; Vermilion River: Wabagishik Rapids (“the Projects”) - The *Canadian Environmental Assessment Act, 2012*.

Mr. Roeper,

As part of the Government’s plan for Responsible Resource Development, which seeks to modernize the regulatory system for project reviews, the *Canadian Environmental Assessment Act* (S.C. 1992, c. 37) was repealed when the *Canadian Environmental Assessment Act, 2012 (CEAA 2012)* came into force.

Please be advised that environmental assessments for the hydro projects listed in the subject line are no longer required as a result of *CEAA 2012*. All other applicable legislative, regulatory and constitutional requirements still must be fulfilled.

While federal environmental assessments are no longer required in relation to the projects, *CEAA 2012* does include provisions and requirements for projects that involve federal lands (e.g. Big Eddy). Transport Canada, Fisheries and Oceans Canada, Department of National Defense and/or Aboriginal Affairs and Northern Development may contact you should we require information in order to fulfill our requirements.

The information related to the projects that was available on the Canadian Environmental Assessment Registry can be accessed through the Canadian Environmental Assessment Archives (<http://www.ceaa.gc.ca/052/index-eng.cfm>).

For further information concerning *CEAA 2012*, please refer to information on the Canadian Environmental Assessment Agency’s Internet site at www.ceaa-acee.gc.ca.

Canada

If you have any questions please contact me at (613) 925-2865 ext. 117, by fax at (613) 925-2445, or by email at Rich.Rudolph@dfo-mpo.gc.ca.

Sincerely,



Rich Rudolph
Environmental Assessment Analyst
Eastern Ontario District

cc: eainfo@oel-hydrosis.ca
Lisa McDonald, Transport Canada
Michelle Perry, Department of National Defense
Christopher Morton, Aboriginal Affairs and Northern Development Canada
John Woodward, Canadian Transportation Agency
Angela Donato, Natural Resources Canada
Caitlin Scott, Natural Resources Canada
Sheryl Lusk, Environment Canada
Karen Blackbourn, Parks Canada
Kitty Ma, Health Canada
Katherine Hess, Health Canada
Melanie Lalani, Health Canada
Darla Cameron, Canadian Environmental Assessment Agency
Paula Allen, Ministry of Environment
Christine Greenaway, Ministry of Natural Resources
Joanna Samson, Ministry of Natural Resources

From: Eggers, Kelly <Kelly.Eggers@dfo-mpo.gc.ca>
Sent: July-12-12 8:48 AM
To: Grace Yu
Subject: RE: Issues List for Marter Project

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Grace,

I apologize for the late response - I was supposed to be back in the office late last week but extended my leave by a couple of days.

To elaborate on the fish passage comments that Connie indicated below for the Marter Project, I add that fish passage concerns identified in the fisheries management objectives provided by the Ontario Ministry of Natural Resources are not limited just to the Marter site - there is concern that decreased flows due to the operational regime at the Marter site could prevent fish movement at two sets of rapids downstream. In addition to Connie's comments, we also require fish habitat compensation plans to offset fish habitat lost or impacted by the project (if applicable, and assuming the impacts to fish habitat are acceptable), as well as mortality estimates for fish entrained in turbines during facility operation. Similar to our comments for Wabagishik, DFO will require monitoring plans for during and post-construction to ensure the mitigation applied to protect fish and fish habitat is effective and the habitat compensation (if required) is functioning, as well as monitoring plans for fish mortality due to blasting and/or turbine entrainment. Aboriginal consultation should also be included on the issues list.

If you have any questions, please let me know.

Thanks

Kelly

Kelly Eggers

Senior Habitat Biologist | Biologiste principal de l'Habitat

Fisheries and Oceans Canada | Pêches et Océans Canada
Northern Ontario District | Nord de l'Ontario
Ontario – Great Lakes Area | Secteur de l'Ontario et des Grands Lacs

28 Waubeek Street | 28 rue Waubeek
Parry Sound, ON P2A 1B9

Tel | Tél: 705-746-2196 ext. 287
Fax | Téléc: 705-746-4820

Kelly.Eggers@dfo-mpo.gc.ca

From: Grace Yu [mailto:GYu@xeneca.com]
Sent: July 4, 2012 6:50 PM
To: Smith, Connie
Cc: Eggers, Kelly
Subject: RE: Issues List for Wanatango Project on the Frederick House River

Thanks Connie for your comments on Wanatango site.

These will be incorporated into the issues list for discussion. However, the meetings have not been set up yet. I will let you know when it is determined.

Sorry for any inconvenience.
Thanks and regards,
Grace

Grace Yu (M. Env. Sc., EPT) | Environmental Assessment/Approvals Officer | Xeneca Power Development Inc.
5255 Yonge Street, Suite 1200, North York, ON M2N 6P4
Tel: 416 590 3064 | **Fax:** 416 590 9955 | **Email:** gyu@xeneca.com

From: Smith, Connie [mailto:Connie.Smith@dfo-mpo.gc.ca]
Sent: Tuesday, July 03, 2012 4:02 PM
To: Grace Yu
Cc: Eggers, Kelly
Subject: RE: Issues List for Wanatango Project on the Frederick House River

Hi Grace,
Sorry that I am just getting back to you on this. Kelly Eggers will be back later in the week so she may have some additions. Also, I am not familiar with the site so some of my comments may have already been discussed.

I noticed the issue list didn't include fish passage. If the site has not been confirmed as a barrier to fish passage for the known species in the Blanche, then fish passage needs for the facility would need to be investigated and confirmed. In addition, a clear delineation of fish habitat with emphasis on critical habitat such as spawning shoals, etc. would be needed. This mapping would be required to aid in in-stream flow needs discussions for the site. Critical timing and amounts of flow will need to be determined to maintain the productive capacity of the fisheries in this stretch of the river.

So, in summary, if not already discussed, additional issues could include:

- determining existing fish passage at the site
- determining future fish passage needs
- detailed habitat mapping with a focus on critical habitat locations and types
- in-stream flow needs: timing and amounts

Thanks,

Connie Smith

Fish Habitat Biologist/ Biologiste de l'habitat du poisson
Central & Arctic Region / Région du Centre et de l'Arctique
Fisheries and Oceans Canada / Pêches et Océans Canada
Government of Canada / Gouvernement du Canada
705-522-0290
Fax/télécopieur: 705-522-6421
1500 Paris St., Unit 11/ 1500, rue Paris, Numéro 11
Sudbury, ON P3E 3B8
Connie.Smith@dfo-mpo.gc.ca

From: Grace Yu [mailto:GYu@xeneca.com]
Sent: 2012-June-15 12:28 PM
To: Jorgensen, Carl A
Cc: Smith, Connie
Subject: RE: Issues List for Wanatango Project on the Frederick House River

Thanks Carl and Connie.

The issues list for Marter is attached here for Connie.

The issues lists are in draft. Your comments and additions are welcome. We will update them prior to the meetings as agenda.

Thanks and regards,
Grace

Grace Yu (M. Env. Sc., EPt) | Environmental Assessment/Approvals Officer | Xeneca Power Development Inc.
5255 Yonge Street, Suite 1200, North York, ON M2N 6P4
Tel: 416 590 3064 | **Fax:** 416 590 9955 | **Email:** gyu@xeneca.com

From: Jorgensen, Carl A [mailto:Carl.Jorgensen@dfo-mpo.gc.ca]
Sent: Friday, June 15, 2012 12:06 PM
To: Grace Yu
Cc: Smith, Connie
Subject: FW: Issues List for Wanatango Project on the Frederick House River

Grace,

I will reply for Wabagishik.
Connie will do the same for Marter.

Cheers,

Carl Jorgensen Fish Habitat Team Leader Northern Ontario District Ontario - Great Lakes Area Central and Arctic Region	705-522-8524 Chef d'équipe, Gestion de l'habitat District du nord de l'Ontario Secteur de l'Ontario et des Grands Lacs Région du Centre et de l'Arctique
---	---

From: Grace Yu [mailto:GYu@xeneca.com]
Sent: June 13, 2012 4:36 PM
To: Jorgensen, Carl A
Subject: RE: Issues List for Wanatango Project on the Frederick House River

Sorry Carl.

I just recalled that you did not have the issues lists as well. I sent Wabageshik and Marter two projects to her. The email including the lists is attached.

The lists are drafted roughly to start the discussion. They will be updated according to the comments we received from you and other agencies.

Thanks and regards,
Grace

Grace Yu (M. Env. Sc., EPT) | Environmental Assessment/Approvals Officer | Xeneca Power Development Inc.
5255 Yonge Street, Suite 1200, North York, ON M2N 6P4
Tel: 416 590 3064 | **Fax:** 416 590 9955 | **Email:** gyu@xeneca.com

From: Jorgensen, Carl A [mailto:Carl.Jorgensen@dfo-mpo.gc.ca]
Sent: Wednesday, June 13, 2012 4:15 PM
To: Grace Yu
Subject: RE: Issues List for Wanatango Project on the Frederick House River

could you please supply the issues list as it stands?

Carl Jorgensen **705-522-8524**
Fish Habitat Team Leader Chef d'équipe, Gestion de l'habitat
Northern Ontario District District du nord de l'Ontario
Ontario - Great Lakes Area Secteur de l'Ontario et des Grands Lacs
Central and Arctic Region Région du Centre et de l'Arctique

From: Grace Yu [mailto:GYu@xeneca.com]
Sent: June 13, 2012 4:05 PM
To: Jorgensen, Carl A
Subject: RE: Issues List for Wanatango Project on the Frederick House River

Thanks Carl.

Yes, I sent the same request for Wabageshik to Kelly Eggers. That would be great if you can provide comments on that one.

Thanks a lot, and look forward to receiving your comments.

Best regards,
Grace

Grace Yu (M. Env. Sc., EPT) | Environmental Assessment/Approvals Officer | Xeneca Power Development Inc.
5255 Yonge Street, Suite 1200, North York, ON M2N 6P4
Tel: 416 590 3064 | **Fax:** 416 590 9955 | **Email:** gyu@xeneca.com

From: Jorgensen, Carl A [mailto:Carl.Jorgensen@dfo-mpo.gc.ca]
Sent: Wednesday, June 13, 2012 4:01 PM

To: Grace Yu

Subject: RE: Issues List for Wanatango Project on the Frederick House River

Grace,

Did you send a similar request about the Wabagishik proposal to Kelly Eggers? She is away until July 5th. I am somewhat familiar with the project and issues; perhaps I can provide comment. I am going on leave starting next Monday, so please provide ASAP.

Cheers,

Carl Jorgensen

Fish Habitat Team Leader
Northern Ontario District
Ontario - Great Lakes Area
Central and Arctic Region

705-522-8524

Chef d'équipe, Gestion de l'habitat
District du nord de l'Ontario
Secteur de l'Ontario et des Grands Lacs
Région du Centre et de l'Arctique

From: Grace Yu [mailto:GYu@xeneca.com]

Sent: June 5, 2012 2:47 PM

To: Jorgensen, Carl A

Cc: Mark Holmes; Vanesa Enskaitis; Stephanie Hodsoill; Humera Khan; Ed Laratta; Uwe Roeper

Subject: Issues List for Wanatango Project on the Frederick House River

Dear Carl,

Xeneca is drawing close to completion of its Waterpower Class Environmental Assessment for Wanatango Project on the Frederick House River.

Through Ministry of Natural Resources' Site Information Packages (SIPs) provided as part of its site release process and via Federal/Provincial agency coordination meetings, the attached list of issues and observations has been identified.

To follow up on these topics we would like arrange a meeting to discuss:

- the issues that have been raised,
- the work undertaken to answer questions
- and the action taken to address identified impacts.

The document is in draft form and prepared for near-future discussion which may be undertaken via video conference, teleconference or, if required, in person.

Kindly review the list with appropriate staff and identify any other topics that should be added. We would like to schedule meetings for discussion at the earliest possible juncture. Please provide your available dates in June to Humera Khan (HKhan@xeneca.com; 416-590-3075). She will arrange the meeting date and time.

We look forward to your input and working with your office.

Very best regards,

Mark Holmes
Vice President
Corporate Affairs
Xeneca Power Development

5255 Yonge St.
Suite 1200
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From: Eggers, Kelly <Kelly.Eggers@dfo-mpo.gc.ca>
Sent: July-24-12 12:04 PM
To: Muriel Kim
Subject: RE: Proposed Blanche River waterpower project - Upcoming distribution of the DRAFT Environmental Report

Hi Muriel,

I am still the appropriate DFO contact for the Marter project. For the draft ER, a CD-ROM copy will suffice.

Thanks

Kelly

Kelly Eggers

Senior Habitat Biologist | Biologiste principal de l'Habitat

Fisheries and Oceans Canada | Pêches et Océans Canada
Northern Ontario District | Nord de l'Ontario
Ontario – Great Lakes Area | Secteur de l'Ontario et des Grands Lacs

28 Waubeek Street | 28 rue Waubeek
Parry Sound, ON P2A 1B9

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Kelly.Eggers@dfo-mpo.gc.ca

From: Muriel Kim [<mailto:mkim@wesa.ca>]
Sent: July 24, 2012 10:55 AM
To: Eggers, Kelly; stephanie.davis@ceaa-acee.gc.ca; lisa.mcdonald@tc.gc.ca; EACoordination_ON@inac-ainc.gc.ca; katherine.hess@hc-sc.gc.ca; sheryl.lusk@ec.gc.ca; Caitlin.Scott@NRCan.gc.ca; tina.webb@ontario.ca; shaun.walker@ontario.ca; gerry.webber@ontario.ca; jennifer.lillie-paetz@ontario.ca; brett.smith@ontario.ca; David.Pickles@ontario.ca; paul.marleau@ontario.ca
Cc: Tami Sugarman; Kai Markvorsen
Subject: Proposed Blanche River waterpower project - Upcoming distribution of the DRAFT Environmental Report

Good afternoon,

We will soon be distributing the DRAFT Environmental Report (ER) for the proposed Xeneca Power Corporation Inc. waterpower development on the Blanche River (Marter Township).

The proposed undertaking is subject to the Class Environmental Assessment for Waterpower Projects as a new project on a managed waterway. While there is no formal requirement for a draft ER in the

Class EA for Waterpower Projects, this document will be circulated to key parties in order to facilitate an efficient regulatory review of the final document.

We would like to confirm that you continue to be the appropriate one-window contact at your organization, and whether there are additional individuals within your organization whom you believe should also receive a copy of the draft ER. We are planning to distribute one hard copy and one CD-ROM to each regulator on our contact list; please let us know if you would like to receive additional copies, or if only one form of the report (hard copy or CD-ROM) would suffice.

I will follow up this message with a phone call within the next couple of days to confirm your participation in the review process.

Best regards,
Muriel Kim



Muriel Kim M.Sc.
Environmental Scientist

(T) (613) 839-3053 x261 (C) (613) 294-3886 mkim@wesa.ca www.wesa.ca

NOTE: If you are not the intended recipient of this e-mail, please delete it immediately. Unauthorized transmission of this e-mail is prohibited.

From: [Eggers, Kelly](#)
To: [Kristi Beatty](#); [McDonald, Lauren \(MNR\)](#)
Cc: [Grace Yu](#); [Ed Laratta](#); [Ciara DeJong](#); [Mark Holmes](#); [White, Rosanna \(ENE\)](#); [Stephanie Hodsoll](#); [Walker, Shaun \(MNR\)](#); [Muriel Kim](#)
Subject: RE: Marter Spawning Operating Restrictions Tables
Date: July-12-13 12:47:40 PM

Thanks Kristi.

Yes, 12 degrees C is generally considered in the literature to be the upper limit of the **peak** spawning period for walleye. Spawning can continue to higher water temperatures but the peak time usually ends around 12 degrees. Similarly, the literature generally considers 16 degrees C to be the upper limit for the optimal spawning period for Lake Sturgeon, though spawning can continue in water temperatures up to 20 degrees. Unless there is data available from the local walleye and Sturgeon populations that indicates these populations spawn in a different temperature range, DFO is satisfied with using 12 degrees C for walleye and 16 degrees C for Sturgeon in the Marter Operating Plan tables as the trigger in the tables to move to the egg incubation time window.

Kelly

Kelly Eggers

Fisheries Protection Biologist | Biologiste de protection des pêches

Fisheries and Oceans Canada | Pêches et Océans Canada
Central and Arctic Region | Région Centrale et de l'Arctique

301 – 5204 50th Ave. | 301 – 5204 50^e Ave.
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Fax | Téléc: 867-669-4940

Kelly.Eggers@dfo-mpo.gc.ca

From: Kristi Beatty [mailto:ormgkb@ormg.org]
Sent: July 12, 2013 10:15 AM
To: Eggers, Kelly; 'Stephanie Hodsoll'; 'McDonald, Lauren (MNR)'; 'Walker, Shaun (MNR)'; 'Muriel Kim'
Cc: 'Grace Yu'; 'Ed Laratta'; 'Ciara DeJong'; 'Mark Holmes'; 'White, Rosanna (ENE)'
Subject: RE: Marter Spawning Operating Restrictions Tables

Thanks Kelly – these changes all make perfect sense, and I will complete the revisions shortly and recirculate the tables. I was not aware of the exact alterations made to the Wabagishik table, and I appreciate you sending the background information and correspondence through.

Could you please confirm that the temperatures listed in the table (12C and 16C) for walleye and sturgeon, respectively, are satisfactory for DFO on the Marter project?

Thanks again for your clarification, and for your time in pulling together this information!

Cheers,

Kristi

Kristi Beatty

P (613) 638-0283

C (613) 639-8585

ormgkb@ormg.org

www.ormg.org

From: Eggers, Kelly [mailto:Kelly.Eggers@dfo-mpo.gc.ca]

Sent: July-12-13 12:07 PM

To: Stephanie Hodsoll; McDonald, Lauren (MNR); Walker, Shaun (MNR); Muriel Kim

Cc: Kristi Beatty; Grace Yu; Ed Laratta; Ciara DeJong; Mark Holmes; White, Rosanna (ENE)

Subject: RE: Marter Spawning Operating Restrictions Tables

Hi Steph,

While the updates to the tables that were supposed to be done by ORMG following the April 11th meeting weren't specified in our meeting minutes, what I have in my notes is that they were to be updated to match the tables for Wabagishik. The tables for Wabagishik had been updated in February with comments to NRSI from myself and MNR (I've attached the emails). So the same updates were to be reflected in the Marter table. While the current version of the Marter table is similar in intent to the Wabagishik table, there are a few key differences, hence the intention from the April 11th meeting to update the Marter table to match the most recent Wabagishik table.

For reference, I have attached the correspondance between NRSI, MNR, and DFO from February with the Wabagishik table and MNR/DFO comments on it.

The second line of the Walleye table for Marter, in the far right-hand column, indicates ROR operation until 14 days have passed or 12C is reached. The Wabagishik table uses only a temperature trigger for the end of spawning, which I beleive is appropriate. The footnote under the walleye table in the Marter plan, if MNR agrees with it, would allow for an earlier move to the egg incubation, but for Wabagishik we recommended that footnote be removed. Also for Wabagishik during the egg incubation and yolk sac absorption periods operations are to be ROR, yet the Marter table indicates no intermittent operation is also a possibility. As the walleye spawn period runs right into the sturgeon spawn period which is also ROR, there wouldn't be an opportunity to switch operations anyways.

For the Sturgeon table in the Marter OP, the seond line again lists 14 days or until 16 degrees is reached. Similarly to my comment above re: walleye, using only the temperature trigger would be appropriate. Under yolk sac absoprtion, the Wabagishik Table lists that time period as being 17 days after hatch, while the Marter Table indicates 2-5 days...quite a difference there. Also during yolk sac absorption, the Wabagishik operations are ROR, while Marter indicates can start intermittent - for Wabagishik, modified operations start at larval drift, because they aren't too mobile before that. Even with a 20cm water fluctuation the developing larvae could be stranded. Larval drift does occur at night, so that note in the Marter table should remain.

My understanding following the April 11th meeting was that these changes would be made. DFO is unable to accept the Marter OP spawning tables as they currently exist in the plan dated July 2012 as there would likely be impacts to fish and fish habitat.

Thanks

Kelly

Kelly Eggers

Fisheries Protection Biologist | Biologiste de protection des pêches

Fisheries and Oceans Canada | Pêches et Océans Canada
Central and Arctic Region | Région Centrale et de l'Arctique

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Kelly.Eggers@dfo-mpo.gc.ca

From: Stephanie Hodson [mailto:SHodson@xeneca.com]

Sent: July 11, 2013 8:54 AM

To: Eggers, Kelly; McDonald, Lauren (MNR); Walker, Shaun (MNR); Muriel Kim

Cc: Kristi Beatty; Grace Yu; Ed Laratta; Ciara DeJong; Mark Holmes; White, Rosanna (ENE)

Subject: Marter Spawning Operating Restrictions Tables

Hi Kelly & Lauren,

Regarding the action item as discussed on last Friday's Marter call:

ACTION: GY to send spawning tables and operating plans to KB to be updated and sent to SW and KE.

The approach we have taken (detailed below) will see Xeneca submitting the final Marter ER using our (current & unchanged) degree proposal. The action item above was based on the idea that Xeneca might submit the final ER with a degree-day proposal. As we are sticking with an unchanged method, the tables do not need to be updated at this time. I have attached Grace's original email from April 11 with the original spawning tables for your reference.

MORE INFO:

Below is an excerpt from my email to Lauren/Rosanna on May 3/May 7, regarding the approach adopted by Xeneca:

Regarding the current degree versus degree-day (cumulative thermal units) discussion, we would like to go ahead and put out the Marter EA with our current degree proposal.

We are trying very hard to get the final EA out, and changing to the degree-day methodology would only contribute to further delays.

However, we propose that during permitting and Water Management Planning, we work with you and Kristi at ORMG to see what the degree-days proposal would look like. We could change to a degree-days approach at that time if it is appropriate.

Rosanna's advice on this was: "I would recommend that all aspects of this proposal that are known at the time of ER submission, such as the fact that the facility will be operated as Run of River during the spawning periods dictated by this thermal approach, should be included in the final ER. The final ER should show the work that has been done to date on this matter (so keeping what has already been done in there and including MNR's proposed changes

from their previous comments) and then also stating that the details of the final thermal based approach will be agreed to with MNR and DFO at the permitting stage.”

Thanks,
Steph

Stephanie Hodsoll
Stakeholder Relations
Xeneca Power Development
5255 Yonge St., Suite 1200
North York, ON M2N 6P4
(416) 590-3077

Transport Canada

From: McDonald, Lisa <lisa.mcdonald@tc.gc.ca>
Sent: September-14-11 9:10 AM
To: Environmental Assessment Information
Cc: 'Davis,Stephanie [CEAA]'
Subject: RE: EA Coordination meeting for Xeneca's proposed Marter Township waterpower project, September 14 Meeting, 2nd call for participants
Attachments: NWPA APPLICATION GUIDE.PDF

Good morning Karen,

I apologize for the delayed response – I had been out of the office for a few weeks, and am just getting caught up on emails that arrived while I was away.

Unfortunately, I will not be able to attend today's meeting; however, please accept the following comments in place of my attendance:

Transport Canada (TC) has been identified as an RA for the CEAA environmental assessment of this project. TC is responsible for the administration of the *Navigable Waters Protection Act* (NWPA), which prohibits the construction or placement of any "works" in, on, over, under, through or across navigable waters without first obtaining approval. Based on the information provided in the project description, there are project elements or activities that may cross or affect a potentially navigable waterway. As such, Xeneca must submit an NWPA application to the Navigable Waters Protection Office, as outlined in the attached Application Guide, preferably as soon as possible.

As part of the NWPA application process, the Navigable Waters Protection Office will require general arrangement drawings of the proposed facility including:

- plan view (with dimensions), showing the location (distance from dam) of the safety boom (including colour) and the portage entry, exit and signage locations; and,
- profile view (with dimensions), including normal operating water levels.

The Navigable Waters Protection Office will also require a location map, plan view and profile view for each access road and transmission line that crosses a waterway. These drawings must show water level and navigational clearance. Six copies of all maps/plans will be required.

Please note that while final plans will be required prior to completing the NWPA application process, they are not required to initiate the process. **Questions specific to the NWPA application process should be directed to the Navigable Waters Protection Office at 1-866-821-6631 or NWPontario-PENontario@tc.gc.ca.**

If you have any questions regarding TC's EA-role for this project, please phone me at 416.952.0475.

Sincerely,

Lisa McDonald

Environmental Officer
Transport Canada - Ontario Region
4900 Yonge Street, 4th Floor (PHE)
North York, ON M2N 6A5
phone: 416.952.0475
e-mail: lisa.mcdonald@tc.gc.ca

From: Environmental Assessment Information [mailto:eainfo@oel-hydrosys.ca]

Sent: Wednesday, September 07, 2011 8:56 AM

To: Environmental Assessment Information; Brett Smith; Caitlin Scott; David Pickles; Ellen Cramm; Gerry Webber; Helen Kwan; Jana Von Oosten; Jennifer Lillie-Paetz; Katherine Kirzati; Lianne Kentish; McDonald, Lisa; Mei Ling Chen; Nancy Allick; Paul Marleau; Rob Dobos; Stephanie Davis

Cc: elaratta@xeneca.com; mholmes@xeneca.com

Subject: RE: EA Coordination meeting for Xeneca's proposed Marter Township waterpower project, September 14 Meeting, 2nd call for participants

Importance: High

Good morning...

Few responses confirming participation in the meeting have been received to date.
Could you please confirm your attendance either via teleconference or in person.

Regards,

Karen

Environmental Assessment Information - OEL-HydroSys Carp - (613) 839-1453

From: Environmental Assessment Information

Sent: Monday, August 29, 2011 10:07 AM

To: 'Brett Smith'; 'Caitlin Scott'; 'David Pickles'; 'Ellen Cramm'; 'Gerry Webber'; 'Helen Kwan'; 'Jana Von Oosten'; 'Jennifer Lillie-Paetz'; 'Katherine Kirzati'; 'Kelly Eggers'; 'Lianne Kentish'; 'Lisa McDonald TC'; 'Mei Ling Chen'; 'Nancy Allick'; 'Narren Santos'; 'Paul Marleau'; 'Paul Norris'; 'Rick Gordon'; 'Rob Dobos'; 'Shaun Walker'; 'Stephanie Davis'

Cc: elaratta@xeneca.com; 'pgillette@xeneca.com'; mholmes@xeneca.com; Kai Markvorsen; Tami Sugarman; 'Dean Assinewe'

Subject: EA Coordination meeting for Xeneca's proposed Marter Township waterpower project, September 14, Meeting Location and Teleconference Details

Good morning,

An EA coordination meeting in support of Xeneca's proposed **Marter Township** waterpower project on the Blanche River will be held on

September 14, 2011 at 10:30am in the Boardroom at the Ministry of Natural Resources offices (2nd floor) at 10 Government Road East, Kirkland Lake. A Draft Agenda is attached, please provide any agenda items by September 2, 2011.

The meeting will begin at 10:30 am and continue through until sometime early afternoon.

A light lunch will be provided in order that we may continue working through the lunch hour. If you will be joining us in person, please notify us so that we can finalize the details for catering. If you will be joining us by teleconference, we ask that you are also able to continue through the working lunch.

Please respond as soon as possible to confirm your participation in this event.

Teleconferencing details are as follows:

Toll free: 

Should you encounter any difficulties connecting to the conference call please contact;

Karen Fortin



Please have a copy of the project description issued by Xeneca for the meeting since we will be referring to this document.

This invitation is being issued on behalf of Xeneca Power Corporation Inc.

Regards,

Karen

October 28, 2011

Patrick Gillette, President
Xeneca Power Development Inc.
5255 Yonge Street, Suite 1200
Toronto, Ontario M2N 6P4

Dear Mr. Gillette:

Subject: Aboriginal Consultation Direction for Xeneca Hydroelectric Generation Station Projects - Ivanhoe River: Third Falls and The Chute; Frederick House River: Wanatango Falls; Serpent River: Four Slide Falls and McCarthy Chute; Petawawa River: Big Eddy and Half-Mile Rapids; Kapuskasing River: Kapuskasing Lake Outlet, Lapinagam Rapids, Middle Township Buchan and Near North Boundary; Larder River: Larder & Raven; Blanche River: Marter Township; Wanapitei River: Allen & Struthers; Vermilion River: Wabagishik Rapids (**the “Projects”**)

This letter is in regard to the hydroelectric power development proposals under subject reference (the “Projects”) that Transport Canada (“TC”), Fisheries and Oceans Canada (“DFO”), National Defence (“DND”) and Aboriginal Affairs and Northern Development Canada (“AANDC”) [“Responsible Authorities” or “RAs”] have received to date from Xeneca Power Development Inc. (“Xeneca”). As you are aware, federal environmental assessments pursuant to the *Canadian Environmental Assessment Act* (“CEAA”) are currently ongoing for the Projects.

As a result of regulatory roles in the Projects, RAs are obliged to ensure that Aboriginal groups whose potential or established Aboriginal or treaty rights may be adversely affected by the Projects are adequately consulted and, where appropriate, accommodated. Further, as part of CEAA responsibilities, RAs are required to consider effects of any change to the environment caused by the Projects on the current use of lands and resources for traditional purposes by Aboriginal peoples.

While responsibility to ensure that potentially affected Aboriginal groups have been adequately consulted with rests with the Crown, procedural aspects of consultation processes are often delegated to project proponents. Project proponents are typically best-suited to speak to technical and environmental aspects of their projects, and where appropriate, are best-placed to address concerns raised by Aboriginal groups about the potential impacts of their projects.

By way of this letter the RAs are delegating to Xeneca the procedural aspects of consultation with Aboriginal groups in connection with the Projects. In order to ensure careful consideration of consultation roles and details, project-specific consultation plans must be prepared by Xeneca in collaboration with the RAs, and committed to by Xeneca. The RAs request that draft project-specific Aboriginal consultation plans be submitted by Xeneca for review and approval **on or before November 25, 2011** to the respective Federal Environmental Assessment

Coordinator (FEAC) for each project. FEACs (contact information under Annex “A”) will coordinate review of project-specific consultation plans by respective project RAs.

At minimum, in order to satisfy federal Crown requirements, project-specific consultation plans should include provisions for the following:

1. Providing each Aboriginal group with information about each project which has been identified as potentially impacting their group. This includes sharing information relating to technical and environmental aspects of the project (e.g. draft screening reports, habitat compensation plans, etc.) in a timely manner in order to enable those groups to identify potential adverse impacts and to raise relevant concerns. At a minimum, a copy of the project description should be provided to each Aboriginal group.
2. Providing each Aboriginal group with information about the federal Government’s role(s) with respect to each project which has been identified as potentially impacting that group, including potential and confirmed regulatory authorizations.
3. Requesting the following information from Aboriginal groups, regarding each project which has been identified as potentially impacting that group:
 - a. current use of lands and resources for traditional purposes at or near the project site and information as to how the proposed project might impact those uses; and,
 - b. information as to potential adverse impacts of the project on potential or established Aboriginal or treaty rights, or claim to Aboriginal title. This includes but is not limited to: potential adverse impacts of regulatory authorizations or associated with land agreements.
4. Affording each Aboriginal group a reasonable opportunity to submit questions, comments or concerns regarding each project which has been identified as potentially impacting that group.
5. In consultation with the RAs, responding in a timely and meaningful fashion to any questions, comments or concerns raised by Aboriginal groups.
6. Keeping a record of all communications, meeting minutes, notes of telephone conversations and documents sent to and received from Aboriginal groups consulted in connection with each project and supplying a copy of such record to the RAs along with any updates as the consultation process progresses for each project.
7. Maintaining an Issues Tracking Table consistent with or similar to the template attached to this letter as Annex “B”, and supplying a copy of such table to the RAs, along with any updates, as the consultation process progresses. This includes providing the RAs with a summary report at the end of consultations, including a summary of consultations, what issues were raised, how the issues were dealt with and any mitigation or accommodations that are planned.
8. Undertaking such additional steps as the RAs may request from time to time in furtherance of any consultation process undertaken in connection with any project under reference.

The consultation plans must identify Aboriginal groups that may be affected by the respective project, and should detail how those groups were identified. In addition to the consultation plan in general, the list of potentially affected Aboriginal groups for each project must be reviewed and approved by the RAs. Please note that the RAs have reviewed the list of Aboriginal groups that were identified in Xeneca’s project description documents for each respective project and have identified additional Aboriginal groups that may be affected. For each project under reference, a list of Aboriginal groups identified to date by the RAs as having potential to be affected by the respective project is attached to this letter as Annex “C”. Please ensure that all

groups on these lists are included in the respective draft project consultation plans. The lists provided in Annex "C" may be refined as consultation plans are developed, and the RAs may add additional parties to the lists from time to time, as required.

The RAs understand that Xeneca has prepared Aboriginal consultation plans for some projects as part of the provincial Class Environmental Assessment (Class EA) process and that those plans may include provisions for some of the above-listed federal requirements. With the interest of maintaining coordination to the extent possible between federal and provincial processes, the RAs recommend that Xeneca revise the existing provincial Class EA Aboriginal consultation plans to incorporate all of the above-listed federal requirements, and submit those revised plan (where applicable) for review and approval.

While procedural aspects of consultation are being delegated to Xeneca, the RAs ultimately remain responsible for delivery of consultation in connection with the Projects, including supervising the implementation of consultation plans and monitoring implementation of mitigation and accommodation measures arising from the process. If, at any time during the consultation process, gaps are detected in any of the consultation plans, the RAs may suggest measures to Xeneca to close such gaps. Decisions regarding whether or not the consultation process is complete or whether or not there are gaps that need to be addressed will remain at the discretion of the RAs.

The RAs look forward to working in cooperation with Xeneca regarding the above. We ask that Xeneca please indicate their agreement to fulfill the process described above in written reply to both of the undersigned on or before **November 10, 2011**, with draft project-specific plans to follow by **November 25, 2011**, as requested above. Please do not hesitate to contact either of the undersigned directly if you have any questions.

Sincerely,
FISHERIES & OCEANS CANADA



Carl Jorgensen
Fish Habitat Team Leader
Telephone: (705) 522-8524
e-mail: carl.jorgensen@dfo-mpo.gc.ca

TRANSPORT CANADA



Lisa McDonald
Environmental Officer
Telephone: (416) 952-0475
e-mail: lisa.mcdonald@tc.gc.ca

CJ/LM/lm

C.c. list:

- i. **Transport Canada** - Jennifer Hughes, Haya Finan, Devon Smith
- ii. **Canadian Environmental Assessment Agency** - Stephanie Davis, Amy Liu, Dan McDonell
- iii. **Department of National Defense** - Michelle Perry
- iv. **Fisheries and Oceans Canada** - Kelly Eggers, Rich Rudolph, Jennifer Hallett, Alan Rowlinson
- v. **Aboriginal Affairs and Northern Development Canada** – Christopher Morton
- vi. **Canadian Transportation Agency** - John Woodward

ANNEX “A”

Project	Federal Environmental Assessment Coordinator (FEAC)
Ivanhoe River: Third Falls	Dan McDonell , Project Manager Canadian Environmental Assessment Agency P: 416-954-7357 E: dan.mcdonell@ceaa-acee.gc.ca
Ivanhoe River: The Chute	Dan McDonell (as above)
Frederick House River: Wanatango Falls	Stephanie Davis , Project Manager Canadian Environmental Assessment Agency P: 416.954.7334 E: stephanie.davis@ceaa-acee.gc.ca
Serpent River: Four Slide Falls	Dan McDonell (as above)
Serpent River: McCarthy Chute	Dan McDonell (as above)
Petawawa River: Big Eddy	Amy Liu , Project Manager Canadian Environmental Assessment Agency P: 416.952.1585 E: amy.liu@ceaa-acee.gc.ca
Petawawa River: Half-Mile Rapids	Michelle Perry , Base Environment Officer Department of National Defense P: 613.687.5511 ext. 6572 E: michelle.perry@forces.gc.ca
Kapuskasing River: Kapuskasing Lake Outlet, Lapinagam Rapids, Middle Township Buchan and Near North Boundary	Dan McDonell (as above)
Larder River: Larder & Raven	Stephanie Davis (as above)
Blanche River: Marter Township	Stephanie Davis (as above)
Wanapitei River: Allen & Struthers	Stephanie Davis (as above)
Vermilion River: Wabagishik Rapids	Stephanie Davis (as above)

ANNEX “B”

DRAFT ABORIGINAL ISSUES TRACKING TABLE

PROJECT NAME:
ABORIGINAL GROUP(S):
DATE: <i>(modify as table is updated)</i>

ISSUE/CONCERN RAISED	NATURE, SOURCE and CONTENT OF RIGHTS	RESPONSE	COMMENTS	Issue STATUS
<p>State the issue/concern raised, by whom it was raised and when.</p> <p>Provide a description of any projected environmental effects of the project relating to the issue/concern.</p>	<p>Indicate the nature (e.g. asserted Aboriginal right, treaty right, title), source (e.g. specific treaty) and content of any rights in question.</p>	<p>Describe measures undertaken to mitigate/eliminate project effects and reference where these measures are documented.</p> <p>Specify if further consultation has taken place to address this issue/concern (e.g. meetings, information sessions etc) including dates.</p> <p>Explain either how the concern is addressed by the response, or explain the rationale for why the concern does not need to be addressed.</p> <p>Specify if the issue/concern was beyond federal EA jurisdiction and if measures were taken to notify appropriate jurisdiction (e.g. Province).</p>	<p>This column can be used for any additional clarifications judged relevant. For example:</p> <ul style="list-style-type: none"> - to explain why certain actions were not taken - to explain complicating factors, sensitivities, etc. 	<p>Indicate level of attention this issue currently requires For example:</p> <ul style="list-style-type: none"> - Resolved, no further action required - Ongoing (indicate when the issue will be dealt with (e.g. prior to EA completion, at regulatory stage, etc.) - Irresolvable

ANNEX “C”

Project	Aboriginal Groups to be Consulted
Ivanhoe River: Third Falls	<ul style="list-style-type: none"> - Taykwa Tagamou Nation - Mattagami First Nation - Flying Post First Nation - Wabun Tribal Council - Métis Nation of Ontario - Chapleau Cree (Fox Lake Reserve) First Nation - Chapleau Ojibway First Nation - Brunswick House First Nation
Ivanhoe River: The Chute	<ul style="list-style-type: none"> - Taykwa Tagamou Nation - Mattagami First Nation - Flying Post First Nation - Wabun Tribal Council - Métis Nation of Ontario - Chapleau Cree (Fox Lake Reserve) First Nation - Chapleau Ojibway First Nation - Brunswick House First Nation
Frederick House River: Wanatango Falls	<ul style="list-style-type: none"> - Taykwa Tagamou Nation - Mattagami First Nation - Matachewan First Nation - Wahgoshig First Nation - Flying Post First Nation - Wabun Tribal Council - Métis Nation of Ontario - Conseil de la Première Nation Abitibiwinni *
Serpent River: Four Slide Falls	<ul style="list-style-type: none"> - Serpent River First Nation - Mississauga First Nation - Sagamok First Nation - Métis Nation of Ontario
Serpent River: McCarthy Chute	<ul style="list-style-type: none"> - Serpent River First Nation - Mississauga First Nation - Sagamok First Nation - Métis Nation of Ontario
Petawawa River: Big Eddy	<ul style="list-style-type: none"> - Algonquins of Ontario - Métis Nation of Ontario - Algonquin Anishinabeg Nation Tribal Council * - Algonquins of Pikwàkanagàn * (<i>Note: Algonquins of Pikwakanagan are part of the Algonquins of Ontario</i>)

* Groups identified by the RAs as having the potential to be affected by the project, that were not identified by Xeneca in the respective Project Description

Project	Aboriginal Groups to be Consulted
Petawawa River: Half-Mile Rapids	<ul style="list-style-type: none"> - Algonquins of Ontario - Métis Nation of Ontario - Algonquin Anishinabeg Nation Tribal Council * - Algonquins of Pikwàkanagàn * (<i>Note: Algonquins of Pikwakanagan are part of the Algonquins of Ontario</i>)
Kapuskasing River: Kapuskasing Lake Outlet, Lapinagam Rapids, Middle Township Buchan and Near North Boundary	<ul style="list-style-type: none"> - Brunswick House First Nation (Dusk Lake and Mountbatten) - Flying Post First Nation - Chapleau Cree First Nation - Chapleau Ojibway First Nation - Moose Cree First Nation - Taykwa Tagamou First Nation - Métis Nation of Ontario - Michipicoten First Nation - Constance Lake First Nation - Wabu Tribal Council - Mushkegowuk Council - Kapuskasing Indian Friendship Centre - Mattagami First Nation *
Larder River: Larder & Raven	<ul style="list-style-type: none"> - Matachewan First Nation - Beaverhouse First Nation - Wabun Tribal Council - Métis Nation of Ontario - Algonquin Anishinabeg Nation Tribal Council * - Algonquin Nation Secretariat * - Wahgoshig First Nation *
Blanche River: Marter Township	<ul style="list-style-type: none"> - Beaverhouse First Nation - Matachewan First Nation - Métis Nation of Ontario - Temagami First Nation * - Timiskaming First Nation *

* Groups identified by the RAs as having the potential to be affected by the project, that were not identified by Xeneca in the respective Project Description

Project	Aboriginal Groups to be Consulted
Wanapitei River: Allen & Struthers	<ul style="list-style-type: none"> - Dokis First Nation - Wikwemikong Unceded First Nation - Henvey Inlet First Nation - Sagamok First Nation - Whitefish Lake First Nation - Wahnapiatae First Nation - North Channel Métis Council - Sudbury Métis Council - Sheguiandah First Nation * - Aundeck-omni-kaning (Sucker Creek) First Nation * - United Chiefs and Councils of Mnidoo Mnising * - Whitefish River First Nation * - Nipissing First Nation * - Magnetawan First Nation * - Naiscouting/Shawanaga First Nation *
Vermilion River: Wabagishik Rapids	<ul style="list-style-type: none"> - Sagamok First Nation - Whitefish River First Nation - Wahnapiatae First Nation - Whitefish Lake First Nation - North Channel Métis Council - Sudbury Métis Council - Wikewemikong Unceded First Nation (located at Point Grondine Indian Reserve No. 3) * - Serpent River First Nation * - Aundeck-omni-kaning (Sucker Creek) First Nation * - M'Chigeeng First Nation * - Sheguiandah First Nation * - United Chiefs and Councils of Mnidoo Mnising *

* Groups identified by the RAs as having the potential to be affected by the project, that were not identified by Xeneca in the respective Project Description



Transport Canada
Marine

Transports Canada
Marine

Navigable Waters Protection Program
Programme de protection des eaux navigables
100 Front Street South
Sarnia, Ontario N7T 2M4

Your File / Votre référence

Our File / Notre référence
8200-2012-400826

September 6, 2012

Xeneca Power Development Inc.
5255 Yonge Street, Suite 1200
Toronto, ON M2N 6P4

Attention: Edmond Laratta

Re.: Application under the *Navigable Waters Protection Act* by Xeneca Power Development Inc. for Approval of the Generating Station located at Blanche River, Lot 12, Concession 5, District of Kirkland Lake, Township of Marter, District of Timiskaming, Province of Ontario

Reference is made to your submission received September 5, 2012 regarding the above noted project.

Upon initial screening of your application, it is noted that Xeneca currently has two (2) possible design options for this project. Unfortunately, Transport Canada cannot initiate our review until an option has been chosen and "final" design is available for review.

When resubmitting your application, please be sure all of the following information is included:

- Completed NWPA Application Form
- Location/Site map (6 copies)
- Detailed Final design, fully dimensioned plan (top) view of all works to be constructed, including any temporary works to be used (6 copies)
- Detailed Final design fully dimensioned profile (side) view of all works to be constructed, including any temporary works to be used, and with normal operating water levels (6 copies)

Enclosed is your original application as received in this office. Your NWPP file number is 2012-400826. Please ensure to include this file number in all future correspondence.

Please note

- It is unlawful to build or place any work in, on, over, under, through or across any navigable water without prior to construction receiving approval to do so in accordance with the *Navigable Waters Protection Act*.

Should you have any questions, please do not hesitate to contact our office at (519) 383-1863 or by facsimile transmission at (519) 383-1989 or by e-mail at NWPontario-PENontario@tc.gc.ca.

Sincerely,

Kelly Thompson
Navigable Waters Protection Officer
Navigable Waters Protection Program
Marine Safety
Transport Canada
Ontario

KT/jd
Enclosure

Canada

From: Grace Yu <GYu@xeneca.com>
Sent: September-10-12 3:04 PM
To: Thompson, Kelly
Cc: Ed Laratta
Subject: Re: Marter NWPA

Hello Kelly,

We received your feedback letter on our NWPA application for Marter Project. Thanks for the quick response.

We proposed two options for Marter project in the ER. The final decision will depend on whether we can obtain the landowner agreements for the higher dam option, which is the preferred one.

It may take a few months to know the result. I will submit the drawings of the final option to you once it is determined.

Thanks and best regards,
Grace

Grace Yu (M. Env. Sc., EPT) | Environmental Assessment/Approvals Officer | **Xeneca Power Development Inc.**
5255 Yonge Street, Suite 1200, North York, ON M2N 6P4
Tel: 416 590 3064 | **Fax:** 416 590 9955 | **Email:** gyu@xeneca.com

This transmission is intended only for the addressee and contains PRIVILEGED or CONFIDENTIAL information. If you have received this electronic mail in error, please immediately notify the sender. Any unauthorized disclosure, use or retention is strictly prohibited. Xeneca does not accept liability for any errors, omissions, corruption or virus in contents or attachments. Information is provided for use "as is" by the addressee. Revised documents must not be represented as Xeneca work product, without express, written permission of a Xeneca Director.

Ministry of the Environment

June 10, 2010

Ministry of the Environment
North Bay District
191 Booth Road, Unit 16 & 17
North Bay, ON P1A 4K3

To whom it may concern,

As you may be aware, Xeneca Power Development Inc. has been awarded 19 Feed in Tariff contracts by the Ontario Power Authority ("OPA") to purchase water generated renewable power. The following sites are believed to be within your jurisdiction:

Larder & Raven – MNR site # 2JC21, 2JC22 on the Larder River
Marter Twp. – MNR site #2JC16, 2JC17 on the Blanche River

An attached map provided on CD will help to further identify the site locations for each of the projects. Additionally, included in this package is a draft of the Notice of Commencement under the Class EA for Waterpower Projects which will be issued shortly, as well as descriptions of the projects listed above.

This letter is intended to notify your agency of the pending projects and invite agency comment and/or participation where applicable.

Upon review, you may be aware the OPA schedule will prove challenging to both Xeneca and the affected government agencies, as we now have less than 60 months to bring these waterpower projects to commercial operation. This concurs with an analysis of the process by the Ontario Waterpower Association, industry experts and our consultants.

To move forward in a timely manner, we are requesting the following:

- Ministry of the Environment's ("MOE") acknowledgement of receipt of this notice.
- Indication if the MOE intends to comment on some, or all of the projects. If the MOE intends to participate, please indicate the appropriate agency personnel who will handle the Xeneca project files.
- A MOE list of any known issues, concerns and/or comments with respect to the projects, as well as any known non-government stakeholders whom may have interest in these projects.



Please note Xeneca is prepared to meet with the MOE by teleconference to discuss any issues, and requests to be advised of any permits the MOE may require from Xeneca and/or its consultants in order to complete the MOE policy and procedures.

Please contact Xeneca Power Development Inc. with any questions or concerns.

Yours truly,

A handwritten signature in black ink, appearing to read "Patrick Gillette", is written over a light blue horizontal line.

Patrick Gillette
President and COO
Xeneca Power Development LP

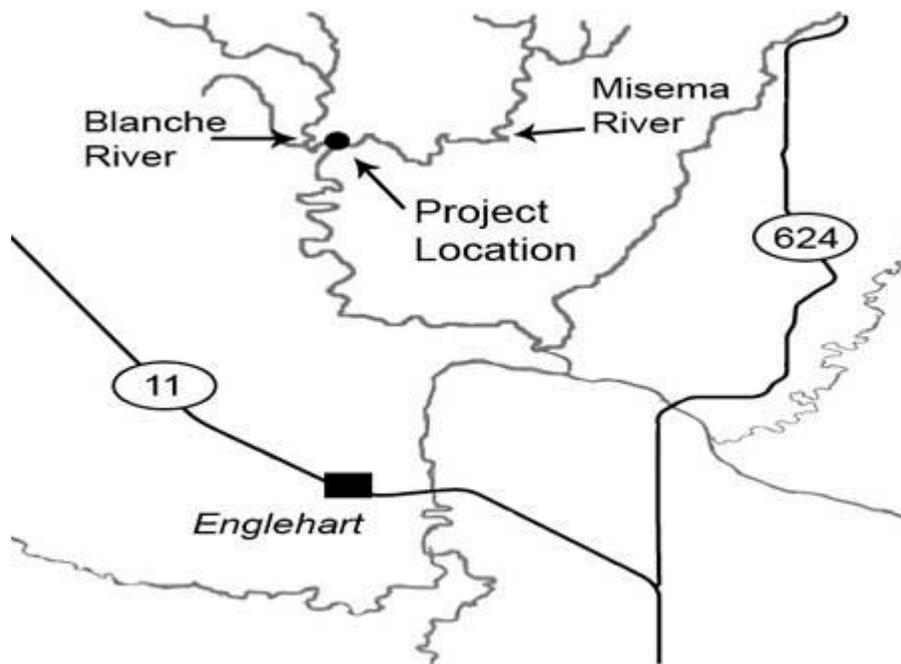
FIT CONTRACTS

Marter Township - FIT Contract # F-000650-WAT-130-301 – MNR Site #2JC16, 2JC17

Proposed Blanche River Waterpower Development Site – Project Overview

Xeneca Power Development Inc. (Xeneca) has received from the Ontario Power Authority (OPA), 19 Feed In Tariff (FIT) contracts which represent a potential waterpower development of 72.5 MW of clean, renewable power for the Province of Ontario.

One FIT contract has been received for a potential development on the Blanche River. The proposed Marter Township Generating Station located on the Blanche River is approximately 9 km north of the Town of Englehart (see key map).



Project Overview

The proposed waterpower generating station will generate clean, green, renewable energy at an installed capacity of about 2.1 MW. The Project's components will include a water control structure's (earthfill, overflow and control dams), and powerhouse with an open approach channel. A new road and upgrade of existing roads will be required to access the site. A transmission line connecting at Kirkland Lake TS will be installed in order to connect the station to the provincial power grid.

The Project is subject to the provisions of the Ontario Waterpower Association's "Class Environmental Assessment (Class EA) for Waterpower Projects"(2008). Pursuant to the Class EA, these projects are considered to be associated with a managed waterway. The Class EA process requires Xeneca Power Development Inc. to undertake an evaluation of the proposed waterpower projects to determine potential effects to the environment (positive and negative) during construction and operation and prepare an Environmental Report. The project may also require review and approval under the Canadian Environmental Assessment Act and post-EA approvals are also needed from Regulatory Agencies.

To date, Xeneca has prepared detailed topographic mapping for the Blanche River at the proposed site and initiated a variety of environmental field studies to collect existing baseline data on the aquatic and terrestrial features in the area. Preliminary site development concepts of the proposed generating stations are in preparation and will be refined following the collection of additional environmental and engineering field data this summer.

The following provides a summary of the key aspects of each of the proposed waterpower generating stations based on the planning and conceptual design work completed to date. This information is subject to update pending the results of further on-site data collection, environmental reviews, and preliminary design.

Site Name:	Marter Township, Blanche River
Location: Lat/Long	Lat: N 47° 54'24.48" / Long: W 79° 52'48"
Watercourse Identification:	On the Blanche River tributary to the Ottawa River
Proposed Generating Station Facilities:	Concrete control dam and fill embankments 0.5 km Penstock and Powerhouse Transformer station 0.5 km new access road to existing local road
Proposed Transmission Facilities:	1.1 km 44 kV Transmission Line from 47.9068, -79.8800 to 47.9009, -79.8882
Anticipated Zone of Influence:	Head pond inundation extending ± 1.0 km of the Blanche River upstream of the proposed dam (1:100-yr flood levels to be determined) Head pond inundation would be a total of ± 5000 m ² of area upstream from the proposed dam. Inundated lands are Crown land. No major river tributaries affected by inundation.
Operating Regime:	Run-of-River with modified peaking
Potential Environmental Considerations:	Fish species, habitat and migration Terrestrial vegetation and habitat Riparian rights (Crown Land and Private Land) First Nations/Aboriginal traditional land/resource use Recreational use and navigation
Proposed Project Phasing:	Environment Assessment and Approvals: 2010 – 2011 Detailed Design: 2011 Construction: 2012 – 2014 In-service Date: 2014

From: Philippa McPhee
Sent: September-28-10 4:38 PM
To: Andrea Clemencio; Kai Markvorsen; Karen Fortin; Philippa McPhee; Pilar DePedro; Tami Sugarman
Subject: FW: Xeneca Power Development FIT Contracts - Larder & Raven, Marter Township
Attachments: MOE North Bay -Cvr Ltr - June 10.pdf; Draft Notice of Commencement -Larder Raven.pdf; Draft Notice of Commencement -Marter Twp.pdf; Larder & Raven- Project Overview - June10.pdf; Marter Twp- Project Overview - June10.pdf; Xeneca FIT Site Map.pdf

Philippa McPhee - WESA Toronto - (416) 383-0957 x31

From: Vanesa Enskaitis [<mailto:VEnskaitis@xeneca.com>]
Sent: Monday, September 27, 2010 3:05 PM
To: Philippa McPhee
Subject: FW: Xeneca Power Development FIT Contracts

From: Samantha Leavitt
Sent: Friday, June 25, 2010 11:02 AM
To: minister.moe@ontario.ca
Cc: Ed Laratta; Mark Holmes; Vanesa Enskaitis
Subject: Xeneca Power Development FIT Contracts

Dear Hon. Gerretsen,

RE: Ministry of the Environment – North Bay

As you may be aware from recent correspondence forwarded to your regional offices, Xeneca Power Development Inc. is a leading independent renewable energy developer. We are committed to environmentally sound planning, a thorough consultative process, and good corporate social responsibility.

Following up on our recently mailed materials, we wish to provide you with an electronic version of this information. This will assist in ensuring that, in the event mail has been misdirected you are in receipt of information that is of interest to your office, and further that it will enable paperless exchange with relevant departments.

Kindly advise if you have not received a package from Xeneca containing a draft Notice of Commencement, Project Overviews for our proposed waterpower projects, as well as a CD, which shows in greater detail the location of these proposed project sites.

Please don't hesitate to contact Xeneca if you have any questions, comments or concerns.

Kind regards,

Samantha

Samantha Leavitt
Stakeholder Relations Representative
Xeneca Power Development Inc.
5160 Yonge Street, Suite 520
Toronto, ON M2N 6L9
Ph: 416-590-9362
Fax: 416-590-9955
samantha@xeneca.com

www.xeneca.com

Subject: FW: Waterpower Projects - Larder River (Larder & Raven) and Blanche River (Marter Township)
Attachments: Xeneca Larder & Raven MOE Response Draft NoC package Aug 9 10.doc.pdf; Xeneca Marter Twp Blanche River MOE Response Draft NoC package Aug 9 10.doc.pdf

From: Cramm, Ellen (ENE) [<mailto:Ellen.Cramm@ontario.ca>]
Sent: Monday, August 09, 2010 4:21 PM
To: Patrick Gillette
Cc: Morash, Patrick (ENE); Leith, Carroll (ENE); Momy, Steven (ENE); Walker, Shaun (MNR); Quirke, Christopher (MEI); Vanesa Enskaitis; Samantha Leavitt
Subject: Waterpower Projects - Larder River (Larder & Raven) and Blanche River (Marter Township)

Hello Mr. Gillette –

Please find attached the Ministry of the Environment's (MOE) responses regarding the Larder & Raven and Marter Township proposed waterpower development site packages sent to our North Bay office on June 10, 2010. I will be the primary contact for MOE during the class environmental assessment process for these two projects, so future correspondence of this nature may be sent to me. Please don't hesitate to contact me if you have questions regarding the attached letters, MOE's mandate, or the environmental assessment process in general.

Thank you.

Regards,

Ellen Cramm, MCIP, RPP
Environmental Planner/EA Coordinator
Technical Support Section, Northern Region
Ministry of the Environment
Telephone: (807) 475-1728 Toll Free: 1-800-875-7772
Fax: (807) 475-1754
ellen.cramm@ontario.ca

Ministry of the Environment
Northern Region
435 James Street South
Suite 331
Thunder Bay, ON P7E 6S7

Ministère de l'Environnement
Région du Nord
435 rue James sud
Bureau 331
Thunder Bay, ON P7E 6S7



Fax: (807) 475-1754
Direct Line: (807) 475-1728

August 9, 2010

Mr. Patrick Gillette
President and COO
Xeneca Power Development LP
5160 Yonge St., Suite 520
Toronto, ON
M2N 6L9

Dear Mr. Gillette:

Re: **Xeneca Power Development LP. Proposed Waterpower Project
Marter Twp – MNR site # 2JC16, 2JC17 on the Blanche River**

Thank you for your letter of June 10, 2010, notifying the Ministry of the Environment's (MOE) North Bay office of Xeneca Power Development's intent to initiate a Class Environmental Assessment (EA) project for the above-noted proposed waterpower project. You have indicated that the proposed facility will have a generation capacity of less than 200MW and will be situated on a managed waterway. Projects of this nature require approval under the Ontario *Environmental Assessment Act* (EAA). In order to obtain the authority for the project to proceed, Xeneca Power Development LP (Xeneca) must plan for the project in accordance with the process outlined in the *Class Environmental Assessment for Waterpower Projects* (Ontario Waterpower Association, October, 2008).

As the Regional EA Coordinator responsible for the area where this project is located, I will serve as the primary MOE contact for the above noted project. This means that, as stipulated in the Waterpower Class EA, I am a mandatory contact for all required notices which include the Notice of Commencement and Notice of Completion. For projects situated on an unmanaged waterway, there is an additional mandatory notice, the Notice of Inspection (Section 4.4.2 Page 41 Waterpower Class EA). In addition, I request that I be provided with any other notices and relevant information (i.e. technical studies related to MOE's mandate, information updates) issued during the environmental assessment process for the proposed facility, including a copy of the Statement of Completion upon completion of the Waterpower Class EA process. (Note that although the Class EA identifies the MOE Regional EA Coordinator at the appropriate Regional Office of the MOE as the mandatory point of contact, as an additional measure you may also wish to include the MOE Timmins District office on your circulation lists.)

As the MOE's primary contact for this project, I have reviewed the information provided with your letter of June 10, 2010, and offer the following guidance regarding the requirements of the Class Environmental Assessment for Waterpower Projects.

Applicant of Record Status

We note that at this time Xeneca does not hold Applicant of Record Status from the Ontario Ministry of Natural Resources (MNR) for these sites. It is outlined in the Waterpower Class EA that that prior to commencing the Class EA process, projects on provincial Crown land are expected to have satisfied appropriate requirements for the MNRs Waterpower Site Release and Development Review process. Applicant of Record Status is provided at the conclusion of this process. Part of the intent of this as a first step is to help inform the Class EA process and ensure that proponents are able to make a fully informed decision on whether they wish to proceed with the Class EA and seek other necessary approvals. It is also the point during which MNR, in collaboration with other agencies, compiles a list of Aboriginal Communities with which proponents need to consult throughout the planning process, including through the Waterpower Class EA process. By proceeding with the Waterpower Class EA for this project before completing MNR's site release process, Xeneca takes on the added risks associated with not having the same information as would be available if Applicant of Record status had been obtained initially. The information and consultation expectations of the Waterpower Class EA process remain the same regardless of whether or not the Applicant of Record status is obtained before initiation of the environmental assessment process.

Status of Waterway (Managed/Unmanaged)

We note that your letter of June 10, 2010 included a draft Notice of Commencement for the Marter Township Waterpower project. This draft notice indicates that the project is considered to be on a managed waterway. We recommend that you confirm the managed/unmanaged status of the waterway with the Ministry of Natural Resources, as we have received information from MNR indicating that this waterway is considered to be unmanaged. Please note that if any portion of the anticipated zone of influence for this project falls within an unmanaged waterway, we would strongly recommend that the Notice of Commencement identify the waterway as unmanaged, and that the requirements of the Class EA process for unmanaged waterways be met.

Notice of Commencement

Our review of the draft Notice of Commencement provided with your letter indicates that the notice does not appear to meet the minimum content requirements for a Notice of Commencement, as outlined in the Waterpower Class EA. Detailed comments regarding the draft notice are attached to this letter. We strongly recommend that, prior to issuing the formal Notice of Commencement, Xeneca review the draft notice and revise it, as required, to ensure that it meets the requirements of the Class EA process. Note that the content of Notices of Commencement and other required notices/reports, together with various aspects of the process followed, may be considered in the event that Part II Order requests are received regarding this project. Once a final Notice of Commencement has been published/issued, please provide a copy of the final notice, along with confirmation of the date(s) published and publication(s) in which it appeared. If the Notice of Commencement for this project has already been published in the form attached to the letter of June 10, 2010, the Notice should be revised and republished/re-issued to ensure it meets minimum content requirements.

Coordination Meeting with Agencies

MOE strongly recommends Xeneca initiate a coordination meeting, as described on page 32 of the Waterpower Class EA. This meeting should occur before a Notice of Commencement for a project is released, as it is an important step that can assist agencies in understanding your project.

In advance of this meeting, more detailed information such as that outlined in Section 4.1.1 of the Waterpower Class EA (page 31), should be provided to relevant agencies. If it has been determined that other Class EAs or screenings apply to this project, and if the proponent intends to combine processes and issue only one Notice of Commencement, the agencies should be advised of this prior to the initial coordination meeting. It is anticipated that affected agencies, including the MOE, would be better able to assist in the identification of potential issues following their receipt and evaluation of this more detailed information.

Environmental Report

In accordance with the Waterpower Class EA, an Environmental Report must be prepared for proposed projects. In addition, for projects on unmanaged waterways, provision of a draft Environmental Report for review at the time of the Notice of Inspection is required. The Environmental Report must be reflective of the relative complexity of the project, as informed through the evaluation and consultation processes. Section 4.0 (pages 29-43) of the Waterpower Class EA describes the environmental assessment planning process. Also, the Environmental Report must contain the information as outlined in Section 4.4 (pages 40-41), including the assessment of significance of effects as outlined in Section 4.3.1. Sections 6.0 and 7.0 (pages 61-69), discuss public, agency, and Aboriginal Community consultation considerations.

Aboriginal Engagement/Involvement

At Applicant of Record stage, the Ministry of Natural Resources currently provides proponents who hold a FIT contract with a list of Aboriginal Communities that should be consulted regarding proposed projects. That list of Aboriginal Communities is developed in consultation with MOE and should be utilized during consultation efforts to satisfy the requirements of the Waterpower Class EA process. Also, the Waterpower Class EA document provides information that may be of assistance in developing an engagement approach specific to Aboriginal Communities. If for some reason you do not have a list of Aboriginal Communities provided through the Applicant of Record process, then MOE recommends that you refer to the Aboriginal Information Resources listed on our website (<http://www.ene.gov.on.ca/en/eaab/aboriginal-resources.php>). In this situation, agencies listed on the website should be contacted to assist you in determining which Aboriginal Communities may be affected by, or have an interest in your project. MOE recommends that you provide notification directly to the Aboriginal Communities who may be affected by, or have an interest in, your project and provide them with an opportunity to participate as early as possible in the environmental assessment process.

Draft Environmental Report and Notice of Completion

Once the final Environmental Report is complete, a Notice of Completion must be issued to all who have expressed an interest in the project, as well as to those on the distribution list for the Notice of Commencement (including newspapers or other publications). Although not a

requirement of the process, MOE encourages that a draft of the Environmental Report be provided to relevant agencies and interested parties for comment before issuance of the Notice of Completion, because addressing outstanding concerns prior to the mandatory 30 day comment period can reduce the risk of receiving Part II Order requests. The final Environmental Report must be made available for public and agency review for a period of at least 30 calendar days, during which documentation, including technical reports and other supporting information, may be reviewed and comments/input submitted to Xeneca.

Consultation/Issue Resolution

Xeneca is reminded that when concerns are raised during the public/agency comment period, the concerned party should be consulted in an attempt to resolve the concerns. Discussions to this end should proceed for an appropriate period of time, even if this means the 30-day review period is exceeded. The Director of Environmental Assessment and Approvals Branch should be notified of any extensions to the consultation period. Xeneca must also advise the concerned party that if such discussions are unsuccessful at resolving the concerns, they can submit an elevation request, if they have not already done so, to the Director of the Environmental Assessment and Approvals Branch, Ministry of the Environment, within a further seven calendar days following the end of discussions (see page 74 of the Waterpower Class EA for further details).

Other Required Permits and Approvals

Completion of the Waterpower Class EA under the EAA does not relieve proponents from the responsibility to obtain any necessary approvals or permits required under other legislation for the project. Xeneca is reminded that the project may not receive approvals under other provincial legislation or commence construction until it has successfully satisfied its obligations under the EAA.

Agency Consultation and Federal Triggers for Waterpower Projects

At this time, Xeneca is directed to Section 4.1.2 and Appendix E of the Waterpower Class EA for information on provincial and federal agencies that should be contacted, and for triggers of the Canadian Environmental Assessment Act. If the federal environmental assessment process is triggered, there is an opportunity to coordinate the federal and provincial environmental assessment processes as discussed in Section 5.2 of the Waterpower Class EA. MOE also recommends that Xeneca contact the Canadian Environmental Assessment Agency as soon as possible for assistance in evaluation of the application of the Canadian Environmental Assessment Act to the proposed undertaking, and to determine the scope of any assessment that may be required for the Federal EA process. The Canadian Environmental Assessment Agency may be contacted at (416) 952-1576.

Xeneca is reminded that the Ministry of Natural Resources is a mandatory contact for hydroelectric projects. The Waterpower Class EA process should be coordinated with the Ministry of Natural Resources' Lakes and Rivers Improvement Act provisions. Please refer to Section 5.3.1 of the Waterpower Class EA for guidance on coordinating these processes.

I trust that the above information will be of some assistance as you proceed with the Class EA process. Please feel free to contact me at any time if you have any questions regarding the MOE's mandate, or the environmental assessment process under Class Environmental Assessment for Waterpower Projects. I look forward to further discussing this project with you at the anticipated coordination meeting for this proposal.

Yours truly,



Ellen Cramm, M.C.I.P., R.P.P.
Environmental Planner/EA Coordinator

attach.

cc: Vanessa Enskaitis, Public Affairs Liaison, Xeneca Power Development Inc
Samantha Leavitt, Stakeholder Relations Representative, Xeneca Power Development Inc.
Patrick Morash, MOE
Carroll Leith, MOE
Steve Momy, MOE
Shaun Walker, MNR
Chris Quirke, MEI

**Xeneca Power Development LP. Proposed Waterpower Project
Marter Twp – MNR site # 2JC16, 2JC17 on the Blanche River
Draft Notice of Commencement – MOE Comments**

The following comments pertain to the Draft Notice of Commencement for the above-noted Waterpower project, as attached to the letter of June 10, 2010, from Xeneca Power Development Inc.

To ensure that the Notice meets content requirements as outlined in the Waterpower Class EA, the draft Notice of Commencement should be revised as indicated below. If the Notice of Commencement has already been published in the form attached to the letter of June 10, 2010, the Notice should be revised and republished/re-issued.

Required changes:

- revise map to identify the anticipated zone of influence for the project;
- confirm, through consultation with MNR and MOE, whether the project is proposed on a managed or unmanaged waterway, and revise notice if required. (Note that if any portion of the anticipated zone of influence of the project is situated on an unmanaged waterway, then the project should meet the requirements of the Class EA for a new project on an unmanaged waterway.); and
- include information regarding the tentative project schedule (We note that the proposed project phasing calls for environmental assessment/approvals in 2010-2011, detailed design in 2011, construction in 2012 – 2014, and operation in 2014. This information could be summarized in the Notice of Commencement.).

The following additional changes to the draft Notice of Commencement would aid in advancing the principles of clarity and transparency, as expressed in the Class EA, and would assist members of the public in understanding the proposed project, determining if they have an interest in the proposal, and more effectively participating in the process.

Suggested changes:

- revise map to indicate the general route of the proposed transmission line;
- revise map to add a scale and North arrow;
- identify the anticipated length and capacity of the proposed transmission line (e.g. 1.1 km, 44kV);
- spell out “Transformer Station” (instead of using “TS”) when referring to the Kirkland Lake Transformer Station;
- along with the reference to the Ontario Waterpower Association’s *Class Environmental Assessment for Waterpower Projects* (2008) in the second paragraph, include a link to this document on the Ontario Waterpower Association’s website;
- as suggested in the Class EA (Appendix D – Sample Notification Template, last paragraph), add wording to indicate that, if requested, comments and associated personal information included in submissions will become part of the public record and may be released to others; and

- include reference to the Lakes and Rivers Improvement Act and any other statutes for which this Notice of Commencement is intended to fulfil notification requirements. (Please note that, in order for this Notice of Commencement to meet notification requirements of specific statutes, the Notice must specifically identify those statutes and must also meet all of their information requirements. The Notice of Commencement, in its current form, would only address provincial Environmental Assessment Act (EAA) and Canadian Environmental Assessment Act (CEAA) requirements if all information requirements for those respective statutes are met (as noted above, the draft notice does not meet provincial requirements). Xeneca may wish to identify additional statutes and include further information to ensure that the Notice meets the requirements of other pieces of legislation. Similarly, if it is determined that other Class EAs or screenings (such as the Class EA for MNR Resource Stewardship and Facility Development Projects) apply to this project, and if the proponent intends to combine processes and issue only one Notice of Commencement, we would strongly advise that this be indicated in the Notice.

From: Philippa McPhee
Sent: October-04-10 12:21 PM
To: Pilar DePedro
Subject: FW: Revised Notice of Commencement and PIC Announcement
Attachments: Revised Notice of Commencement and PIC - Wanatango - 30Sep10.pdf; Revised Notice of Commencement and PIC - Ivanhoe River -30Sep10.pdf; Revised Notice of Commencement and PIC - Kapuskasing River - 30Sep10.pdf; Revised Notice of Commencement and PIC - Larder Raven - 30Sep10.pdf; Revised Notice of Commencement and PIC - Marter Twp - 30Sep10.pdf

Please log email and attachments as necessary.

Philippa

Philippa McPhee - WESA Toronto - (416) 383-0957 x31

From: Vanesa Enskaitis [<mailto:VEnskaitis@xeneca.com>]
Sent: Thursday, September 30, 2010 11:15 AM
To: Cramm, Ellen (ENE)
Cc: Philippa McPhee; Tami Sugarman; King, Larry
Subject: Revised Notice of Commencement and PIC Announcement

September 30, 2010

Dear Ms. Cramm,

Thank you for your initial comments regarding Notice of Commencement filed for Xeneca Power Development Projects within the jurisdiction of your office.

We appreciate your input and direction and have incorporated it into the revised Notice of Commencement which are attached for your review and comment. Also note that the revised Notice of Commencement will also include and Notice of Public Information Centres (attached). We believe the notices fulfill requirements outlined in the Ontario Waterpower Association Class Environmental Assessment for Waterpower.

It is intended that the attached will be published in local media within the next 20 days. Any additional comments you may have regarding these attached notices should be provided back to Xeneca prior to October 20, 2010.

Further, we will shortly be issuing invitations to affected government agencies to attend the Public Information Centres. Kindly advise if you will not be attending and who from your office will be attending in order that we may communicate the invitation to them directly.

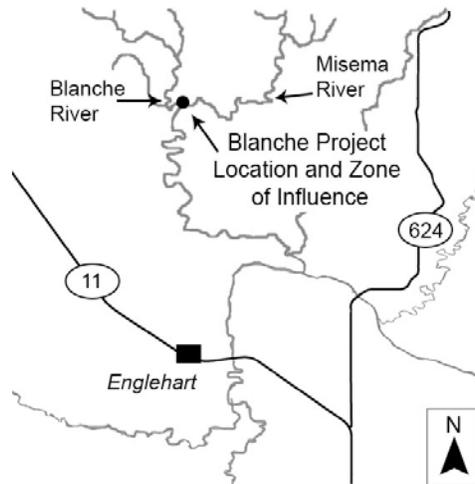
If you have any questions, please do not hesitate to contact me. We look forward to working with you along the EA process and beyond.

Vanesa Enskaitis

Public Affairs Liaison
Xeneca Power Development Inc.

5160 Yonge Street, Suite 520
Toronto, ON M2N 6L9
T: 416-590-9362 X 104
F: 416-590-9955
E: venskaitis@xeneca.com

**Updated Notice of Commencement and Notice of Public Information Centre
Class EA for Waterpower Projects
Marter Township Waterpower Project**



Xeneca Power Development Inc. is planning to undertake an environmental evaluation and assessment for the proposed Marter Township Generating Station located on the Blanche River north of the Town of Englehart in Marter Township. If approved and constructed, this waterpower Project will generate clean, green, renewable energy at an installed capacity of about 2.1 MW. The structure's components will include a water control structure (dam), penstock and powerhouse. A new road and upgrade of existing roads will be required to access the site. A transmission line connecting at Kirkland Lake Transformer Station will be installed in order to connect the station to the provincial power grid. The project's study area is presented in the attached map. Further project information can be obtained by visiting the Xeneca website at www.Xeneca.com.

Construction is expected to start in late fall 2011 and the in-service date for the proposed Project is expected to be in early 2015.

The Project is subject to the provisions of the Ontario Waterpower Association's "Class Environmental Assessment (Class EA) for Waterpower Projects" (2008). Pursuant to the Class EA, this project is considered to be on an unmanaged waterway.

The Class EA process requires Xeneca Power Development Inc. to undertake an evaluation of the proposed waterpower project to evaluate its potential effects to the environment (positive and negative) and prepare a detailed Environmental Report. The project is also expected to require review and approvals under the *Canadian Environmental Assessment Act*, *Fisheries Act*, *Navigable Waters Protection Act*, *Lakes and Rivers Improvement Act (location approval and water management plan)*, *Endangered Species Act*, *Ontario Water Resources Act*, *Environmental Protection Act*, *Water Management Plan* and other legislation. This notice and the public consultation process for the project under the Class EA, are intended to coordinate and meet the notification requirements relevant to the planning stage of the project under these statutes.

The evaluation and environmental report will assess the potential effects of its construction and operation. Xeneca Power Development Inc. has identified certain environmental components that are expected to be the focus of the proposed project. Public consultation will be an integral component of this process.

Public Information Centre

Xeneca Power Development Inc invites you to attend a Public Information Centre where you will have the opportunity to learn more about the project and provide your input to our project team. Please join us on:

Wednesday, November 10th, 2010

Time: 4:00 to 8:00 pm

Royal Canadian Legion

1 Summerhayes Avenue, Kirkland Lake

Thursday, November 11th, 2010

Time: 4:00 to 8:00 pm

Englehart Community Hall

80 Seventh Avenue, Englehart

You are invited to provide comments on the issues to be addressed, and/or to ask to be placed on the project's mailing list. For information on the project proposal, to raise any issues or concerns, or to be placed on the mailing list, please contact:

Vanessa Enskaitis

Public Affairs Liaison

Xeneca Power Development Inc.

T: 416-590-9362 X 104

F: 416-590-9955

E: venskaitis@xeneca.com

Under the *Freedom of Information and Protection of Privacy Act* and the *Environmental Assessment Act*, unless otherwise stated in the submission, any personal information such as name, address, telephone number and property location included in a submission will become part of the public record files for this matter and will be released, if requested, to any person.



From: Webb, Tina (ENE) <Tina.Webb@ontario.ca>
Sent: September-15-11 1:06 PM
To: Karen Fortin
Subject: Noise
Attachments: std01_079096.pdf; std01_079073.pdf

Hi Karen,

Just a quick follow-up.

I spoke to Vicki and my other colleagues and we did not find a document specific to waterpower, however, the noise screening process does state that minimum separation distances to a point of reception can be up to 1000m (determined by screening), anything beyond 1000m is well sited and a detailed noise assessment is not required. Because this is considered a Class 3 Area – Rural, the point of reception would begin 30m from a residence.

The Guide to Applying for Approval (Air and Noise) states that:

In order to obtain an approval under Section 9 of the EPA, applicants are, as a minimum, required to assess and document the impacts of all sound (noise) and vibration emissions from their facility on any sensitive locations defined as a Point(s) of Reception.

If the closest Point of Reception is closer than the minimum required separation distance calculated in the Noise Screening Process then further assessment is required. The application may still be approved as proposed and noise control measures may not be necessary; however, a more detailed noise impact assessment using site specific information on the noise sources present at the facility must be completed in the form of an Acoustic Assessment Report.

I have attached the 2 documents: Noise Screening Application and the Guide to Applying for Approval (air and noise).

EAAB approvals staff can provide more information on the requirements.

I will let Tammy and Xeneca know when we can get a meeting going for the surface water requirements.

Pleasure working with you.
Tina

Tina Webb

Environmental Planner/EA Coordinator
Air, Pesticides and Environmental Planning Unit
Operations Division, Northern Region
199 Larch Street, Suite 1201
Sudbury, Ontario P3E 5P9
Tel.: (705) 564-3205
Fax: (705) 564-4180
email: tina.webb@ontario.ca

From: Maciaszek, Eva (ENE) <Eva.Maciaszek@ontario.ca>
Sent: October-13-11 9:49 AM
To: Environmental Assessment Information
Subject: RE: Draft Meeting Minutes from EA Coordination Meeting Marter Twp Hydroelectric Project on the Blanche River

Hi Kai,

I'm having some problems with our email system so I apologize if you receive this twice.

My comments, during the meeting, were with regard to lack of monitoring of Dissolved Organic Carbon in the surface waters, rather than Dissolved Oxygen as Dissolved Oxygen is already included in the surface water parameter list included in the Project Description.

Additional comments:

Also missing from the Project Description was surface water analysis for mercury (total and methyl). Sampling should be done using "ultra clean" protocol and analysis should have method detection limits of 0.1 ng/L for total mercury and 0.02 ng/L for methyl mercury.

Fish tissue analysis for mercury should also be done as part of the baseline studies.

Further details are contained in:

Ministry of the Environment Northern Region Guidance for Conducting Baseline and Post Development Monitoring of Water Quality and Fish Tissue for Proposed New Green field Waterpower Projects with New Reservoirs.

Thank you,

Eva Maciaszek

Surface Water Specialist, Northern Region

Ministry of the Environment

Suite 1201, 199 Larch St.

Sudbury, Ontario P3E 5P9

t: 705-564-3253

f: 705-564-4180

e: eva.maciaszek@ontario.ca

From: Environmental Assessment Information [<mailto:eainfo@oel-hydrosys.ca>]

Sent: October 05, 2011 2:31 PM

To: Gordon, Rick (MNR); Walker, Shaun (MNR); Dosser, Sandra (MNR); Khan, Mohammad Sajjad(ENE); Stephanie Davis; kelly.eggert@dfo-mpo.gc.ca; Lisa McDonald; Sheryl Lusk; Ed Laratta; mholmes@xeneca.com; mvance@xeneca.com; dassinewe@xeneca.com; dchubbuck@xeneca.com; McDonald, Lauren (MNR); ormgkb@ormg.org; ormgbw@ormg.org; Moro, Eleanor (MNR); Cragg, Ivan (MNR); Cormier, Bertha (MNR); Schryburt, Rob (MNR); Webb, Tina (ENE); Maciaszek, Eva (ENE); Leith, Carroll (ENE)

Cc: Karen Fortin; Kai Markvorsen

Subject: Draft Meeting Minutes from EA Coordination Meeting Marter Twp Hydroelectric Project on the Blanche River

Good afternoon;

Draft meeting minutes of the EA Coordination meeting for the proposed Marter Twp waterpower project on the Blanche River, held at the Ministry of Natural Resources office in Kirkland Lake on September 14th are attached for review by meeting participants.

We would ask that you distribute internally to anyone else who from your organization that may have participated in the meeting.

Distribution of these meeting minutes to anyone other than a participant, or an invited participant requires prior approval by all those on the distribution list.

The final minutes from this meeting will be included as a component of the environmental report. At this time there have been several requests for copies of the meeting minutes to be made available to non meeting participants. Accordingly, we would request that, when providing comments back on the minutes, that participants identify if they have an objection to the general distribution of the minutes prior to their inclusion in the environmental report.

Please note that all review comments are requested no later than noon on October 14th.

Best regards,

Kai Markvorsen

Environmental Assessment Information - OEL-HydroSys Carp - (613) 839-1453

From: Webb, Tina (ENE) <Tina.Webb@ontario.ca>
Sent: June-06-12 4:52 PM
To: Grace Yu
Cc: Allen, Paula (ENE); Mark Holmes; Vanesa Enskaitis; Stephanie Hodso; Humera Khan; Ed Laratta; Uwe Roeper; Kondrat, Todd (ENE)
Subject: RE: Issues Lists for Wanatango and Kapuskasing Projects

Hi Grace,

We would be happy to participate in a meeting to discuss the technical issues related to each of the below noted projects. As Eastern Region has mentioned in their email to you earlier this week, it may be beneficial to have other agencies present to discuss all the issues on the list as many of them are beyond the scope of MOE technical review. We are currently available between the 19th and the 21st of June however, please propose dates which correspond to the availability of the other participating agencies, should Xeneca agree to including them. I would also note that each project has a separate surface water reviewer which I have outlined below. Please include these individuals on the meeting invites for their respective projects. Sajjad Khan, MOE Northern Region Hydrologist, will be working on all three projects.

Wanatango Falls – Rod Sein
Kapuskasing River (4 Sites) – Jim Sutton
Marter Twsp – Blanche River – Eva Maciaszek

As you can see from the below lists there are several overlapping issues for each project. Many of these issues had been outlined in the joint MOE/MNR letter sent to Xeneca in July 2011. We understand several of these issues are being addressed in separate forums; however, they are related to the Class EA process and should be noted in the outstanding issues lists for the projects.

For the Wanatango Falls Project:

- Stage II Archaeological Study recommended by the Stage I Report submitted with the ESR
- Zone of Influence/ Map of study area (including downstream, T/L, ancillary facilities)
- Hydrology data outdated, additional flow analysis required
- Dam options – high dam or low dam option
- Consultation with First Nation and Aboriginal Communities (ACP)
- Public Consultation
- Consultation with OPG on Frederick House Lake Dam operations
- Cumulative Impacts
- Social, economic and tourism impacts discussion at local level

For the Kapuskasing River (4 sites):

- Zone of Influence for the 4 sites/map of study area delineating the zone of influence
- Archaeological Studies
- Public Consultation
- Consultation with First Nations and Aboriginal Communities (ACP)
- Social, economic and tourism impacts discussion at a local level
- Waste disposal during construction/construction plan
- PTTW
- Mercury (studies completed to date, ongoing monitoring)
- Consultation with HydroMega (downstream sites)

For Marter:

- Archaeological Studies
- Public Consultation
- Consultation with First Nations and Aboriginal Communities (ACP)

- Social, economic and tourism impacts discussion at a local level
- PTTW
- Preferred option/Mapping of the study area ZOI.
- Unmanaged waterway?
- Hydrology/Flows (not mentioned in issues list)

Please let me know if you require any further information.
Thanks.

Tina Webb

Environmental Planner/EA Coordinator
Air, Pesticides and Environmental Planning Unit
Operations Division, Northern Region
199 Larch Street, Suite 1201
Sudbury, Ontario P3E 5P9
Tel.: (705) 564-3205
Fax: (705) 564-4180
email: tina.webb@ontario.ca



please, consider the environment.

From: Grace Yu [mailto:GYu@xeneca.com]
Sent: May 31, 2012 11:54 AM
To: Webb, Tina (ENE)
Cc: Allen, Paula (ENE); Mark Holmes; Vanesa Enskaitis; Stephanie Hodsoll; Humera Khan; Ed Laratta; Uwe Roeper
Subject: Issues Lists for Wanatango and Kapuskasing Projects

Dear Tina,

Xeneca is drawing close to completion of its Waterpower Class Environmental Assessment for Wanatango Project on the Frederick House River, and Kapuskasing Lake Outlet, Lapinigam Rapids, Middle Twp Buchan and Near North Boundary Projects on the Kapuskasing River.

Through Ministry of Natural Resources' Site Information Packages (SIPs) provided as part of its site release process and via Federal/Provincial agency coordination meetings, the attached list of issues and observations has been identified.

To follow up on these topics we would like arrange a meeting to discuss:

- the issues that have been raised,
- the work undertaken to answer questions
- and the action taken to address identified impacts.

The document(s) are in draft form and prepared for near-future discussion which may be undertaken via video conference, teleconference or, if required, in person.

Kindly review the list with appropriate staff and identify any other topics that should be added. We would like to schedule meetings for discussion at the earliest possible juncture. Please provide your available dates in June to Humera Khan (HKhan@xeneca.com; 416-590-3075). She will arrange the meeting date and time.

We look forward to your input and working with your office.

Very best regards,

Mark Holmes
Vice President
Corporate Affairs
Xeneca Power Development

5255 Yonge St.
Suite 1200
North York
M2N 6P4
416-590-9362
416-590-9955 (fax)
647-588-9707 (cell)

mholmes@xeneca.com

www.xeneca.com

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From: Mark Holmes <mholmes@xeneca.com>
Sent: October-31-12 12:44 PM
To: john.p.taylor@ontario.ca; Allen, Paula (ENE)
Cc: Uwe Roeper; Ed Laratta; Vanesa Enskaitis; Tami Sugarman
Subject: meeting request

Dear John/ Paula:

Thank you for your respective input into MOE comments on our DRAFT Waterpower Environmental Reports and we wish to advise that Xeneca Power Development has carefully reviewed and prepared responses to the points raised by your Ministry and those of other government agencies.

While many of the comments from MOE were helpful in ensuring we have prepared the best Environmental Report possible, we are concerned there may still be some inconsistency in interpretation of what is required for the ER and what is required in post ER permitting and approvals.

Before finalizing responses to agency comments, we will be meeting again with agency planners, biologists and renewable energy coordinators, but feel it is imperative to meet with the regional director and supervisor to ensure that the approach to EA is acceptable to MOE and consistent with regulatory requirements.

We would propose the following dates: Monday November 12, Tuesday Nov. 13, Wed. Nov. 14, Thursday Nov. 15. We would be pleased to host you at our offices in North York or meet in person in Sudbury or Timmins. If an in-person meeting is not workable we could also consider a teleconference,

Kindly advise on your availability.

Best regards

Mark Holmes
Vice President
Corporate Affairs
Xeneca Power Development

5255 Yonge St.
Suite 1200
North York
M2N 6P4
416-590-9362
416-590-9955 (fax)
647-588-9707 (cell)

mholmes@xeneca.com

www.xeneca.com

From: Webb, Tina (JUS) <Tina.Webb@ontario.ca>
Sent: December-11-12 2:14 PM
To: F N
Cc: Dean Assinewe; Walker, Shaun (MNR); Kentish, Lianne (ENE); Tami Sugarman; Bob Johnston; Heidenheim, Martha (MNR); Telford, Jennifer (MNR); Allen, Paula (ENE)
Subject: RE: Recent Xeneca Correspondence

Hello:

Please note that I am no longer the lead for these projects.

Please copy the following EA coordinators:

For Wanatango: Laurie Brownlee
For Kap 4 sites: Carrie Hutchison
For Marter: Ellen Cramm

Please update your distribution lists to include them for future correspondence.

Thanks!

Tina Webb

Coordinator, Contract Management
Ministry of Community Safety and Correctional Services
Strategic and Operational Initiatives Branch
Operational Support Division
200 First Avenue West, 3rd Floor
North Bay, Ontario P1B 3B9
tel.: (705) 494-3683
email: tina.webb@ontario.ca

From: F N [<mailto:FN@xeneca.com>]
Sent: Tuesday, December 11, 2012 1:18 PM
To: wahgoshig@wahgoshigfirstnation.com
Cc: Chris Sackaney; kkempton@oktlaw.com; Dean Assinewe; Nelson, Corrinne (MNR); Walker, Shaun (MNR); Kentish, Lianne (ENE); Webb, Tina (JUS); Tami Sugarman; Bob Johnston; F N; abradley@oktlaw.com; Heidenheim, Martha (MNR); Telford, Jennifer (MNR); Clarke, Larry (MNR)
Subject: Recent Xeneca Correspondence

Good afternoon,

Over the past month, Xeneca has sent correspondence to your community related to the following proposed projects:

- Wanatango Falls project on the Frederickhouse River
- Marter Twp project on the Blanche River

I would like to provide you with the electronic copies of the cover letters for your records.

Please feel free to contact Xeneca's Aboriginal Affairs Liaison, Dean Assinewe, with any additional questions or concerns at 705 863-1969 or by email at dassinewe@xeneca.com

Meegwetch

Samantha

Samantha Leavitt | Stakeholder Relations | Aboriginal Affairs Liaison | **Xeneca Power Development Inc.**

5255 Yonge Street, Suite 1200, Toronto, ON, M2N 6P4

Tel: 416 590 9362 | **Fax:** 416 590 9955 | **Email:** sleavitt@xeneca.com

PLEASE, think of the environment before printing this message.

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From: Caitlin Kenny
Sent: January-16-13 3:54 PM
To: Caitlin Kenny
Subject: FW: Marter Pre-Submission Consultation Meeting - lines & roads
Attachments: Index_Report_Jan_15_13_Tile Set E (Blanche River).pdf; 01-10-72C_Marter Twp Blanche_Xeneca Power.pdf

From: Stephanie Hodsoll
Sent: January 16, 2013 2:16 PM
To: White, Rosanna (ENE); Maciaszek, Eva (ENE); lianne.kentish@ontario.ca; Walker, Shaun (MNR); eleonor.moro@ontario.ca; lauren.mcdonald@ontario.ca; corrinne.nelson@ontario.ca; 'Greenaway, Christine (MNR)'; brian.turnbull@ontario.ca; Eggers, Kelly; Uwe Roeper; Mark Holmes; Nava Pokharel; Ed Laratta; kfortin@wesa.ca; ormgkb@ormg.org
Subject: Marter Pre-Submission Consultation Meeting - lines & roads

Hello everyone,

Please see attached the updated Marter lines and roads report, as well as the geomorphology report.

Looking forward to the meeting tomorrow.

Cheers,
Steph

Stephanie Hodsoll
Stakeholder Relations
Xeneca Power Development
5255 Yonge St., Suite 1200
North York, ON M2N 6P4
(416) 590-3077

From: Kai Markvorsen
Sent: February-12-13 2:03 PM
To: Caitlin Kenny
Cc: Muriel Kim; Heather Wolczanski
Subject: FW: MOE Clarification on Stage 3 Archaeological for Waterpower EA

FYI and for filing

Kai Markvorsen - Environmental Consultant - (613) 839-1453 x248

From: Uwe Roeper [mailto:URoeper@ortech.ca]
Sent: February-12-13 1:58 PM
To: Allen, Paula (ENE)
Cc: Kirzati, Katherine (MTCS); Kulpa, Paula (MTCS); Kwan, Helen L. (ENERGY); Sugar, Alissa (ENE); Harrison2, Michael (ENE); Brownlee, Laurie (ENE); Cramm, Ellen (ENE); Hutchison, Carrie (ENE); White, Rosanna (ENE); Mitchell, Vicki (ENE); Armstrong, Bill (ENE); Dosser, Sandra (MNR); luke@woodlandheritage.com; Arnold Chan; Greenaway, Christine (MNR); Mark Holmes; Ciara DeJong; Tami Sugarman; Grace Yu; Vanesa Enskaitis; Paul Norris; Stephanie Hodsoll; Ed Laratta; Leah Deveaux; Scott Manser; Kai Markvorsen
Subject: MOE Clarification on Stage 3 Archaeological for Waterpower EA

Hi Paula:

Thank you for the detailed clarification requested by Xeneca at our November 16th meeting with you. The information provided and your interpretation thereof seems clear. I will share the information with our team and review it in more detail. We will let you know if we have any further questions.

For the information of your team, we have been working with our archaeological consultant (Woodland Heritage) on both of the project sites mentioned below. It appears that the archaeological site at Wabageshik is clearly outside of the Zone of Influence mentioned in your clarification. We will follow up with documentation from the archaeologist to this effect.

Regarding the Wanatango project, it appears that your interpretation of the EA requirements may require us to carry out further work in 2013 (year 4 of field studies). We will assess this with the archaeologist and follow up with our proposed course of action with your team.

Again, thank you for the follow up. I may not fully understand why the Waterpower industry is once again dealt with differently than Wind and Solar industries, but I none-the-less appreciate this valuable clarification. This will allow us to move forward with more certainty.

Best regards,
Uwe.

Uwe Roeper, M.Sc., P.Eng.
CEO
Xeneca Power Development Inc.
5255 Yonge St, Suite 1200
North York, M2N 6P4
Ontario, Canada

From: Allen, Paula (ENE) [<mailto:Paula.Allen@ontario.ca>]

Sent: February 12, 2013 1:17 PM

To: Uwe Roeper

Cc: Kirzati, Katherine (MTCS); Kulpa, Paula (MTCS); Kwan, Helen L. (ENERGY); Sugar, Alissa (ENE); Harrison2, Michael (ENE); Brownlee, Laurie (ENE); Cramm, Ellen (ENE); Hutchison, Carrie (ENE); White, Rosanna (ENE); Mitchell, Vicki (ENE); Armstrong, Bill (ENE); Dosser, Sandra (MNR); Greenaway, Christine (MNR)

Subject:

Hello Uwe,

To provide the clarification you are seeking, Northern Region staff, in discussions with EAB has formulated the below interpretation below related to archaeological assessment requirements under the Waterpower Class EA.

It is MOE's understanding, following discussions with the Ministry of Tourism, Culture and Sport (MTCS), that Stage 3 archaeological assessments includes both a site-specific assessment which determines the extent of the site and the need for mitigation, and recommendations on appropriate mitigation measures.

As described in Section 4.2.2 of the OWA Class EA, proponents are required to assess potential effects of their proposed projects, as well as any net effects after mitigation. Section 4.3.1 of the Class EA (Assessment of Effects) further elaborates that the proponent "confirms the potential effects of the project, determines the appropriate avoidance, prevention and/or mitigation strategies and assesses the net effects of the project." The Class EA also requires that consultation take place during the process with the public, agencies, and Aboriginal communities. The ER must contain enough information to demonstrate the potential impacts of the project and identify mitigation measures to a level that allows the public, agencies, and Aboriginal communities to understand the anticipated impacts.

We have confirmed with MTCS that it is the Stage 3 archaeological assessment that determines the extent of identified archaeological sites and recommends any necessary mitigation measures. As such, it is MOE's expectation that Stage 3 archaeological assessments (where recommended by a Stage 2 assessment) be completed during the Class EA process. This ensures that the proponent is able to include identified mitigation measures and an assessment of any net effects in the ER.

MTCS has advised that in some cases, where archaeological sites identified during the completion of a Stage 2 archaeological assessment are located outside of the defined Zone of Influence, it may be possible to mitigate potential impacts through avoidance. Where this approach is used, the location of the archaeological site relative to the defined limit of the Zone of Influence must allow for the implementation of an undisturbed buffer area of a minimum of 20 metres around the perimeter of the archaeological site, with no portion of the buffer encroaching into the Zone of Influence. In addition to the 20 metres, an area of 50 metres beyond should be recommended for monitoring by a licensed archaeologist (the monitored area may extend into the defined Zone of Influence for the project).

Where the above requirements can be achieved, proponents can choose to use the avoidance strategy instead of completing the Stage 3 assessment; however, the completion of a Stage 3 assessment would have the added benefit of removing the monitoring requirement, and may also reduce the required buffer distance to less than 20 metres. Where archaeological sites identified during the completion of a Stage 2 assessment are located within the defined Zone of Influence, the use of this avoidance strategy is not possible because the

recommended minimum buffer, as outlined above, cannot be achieved. Where you choose this avoidance strategy (Wabageshik and Wanatango), we encourage you to work with the MTCS to ensure that legislated requirements are met.

As outlined in the Class EA, all impacts of a project must be assessed as part of the Class EA process, and be presented to the public, agencies, and Aboriginal communities for review and comment. Therefore, where a Stage 2 archaeological assessment has recommended the completion of a Stage 3 assessment, it is MOE's expectation that the Stage 3 assessment or (where possible) commitments to implement the above-noted avoidance strategy, be provided during the EA process, and included within the ER.

In follow-up to our meeting on Monday, February 4, 2013, I have review the ministry comments provided to Xeneca on a project by project basis and find that we have been consistent in our messaging on archaeological assessment requirements during the Waterpower Class EA process. Additionally, I have done a fairly thorough reviewed of waterpower projects that followed the Waterpower Class EA or O. Reg. 116/01 and found that all the project where Stage 2 assessments recommended a Stage 3 assessment, the Stage 3 assessments were completed during the EA process.

I hope this provides the clarification you were seeking. If you have any further question please give me a call.

Paula Allen

Supervisor
Air, Pesticides and Environmental Planning
Technical Support Section
Northern Region
Ministry of the Environment

**MOE / Xeneca / OWA Teleconference Meeting Minutes
Road Assessment under the OWA Waterpower Class EA
April 3, 2013**

Attendees:

Paula Allen (PA), MOE	Mark Holmes (MH), Xeneca
Carrie Hutchison (CH), MOE	Mike Vance (MV), Xeneca
Laurie Brownlee (LB), MOE	Arnold Chan (AC), Xeneca
Rosanna White (RW), MOE	Grace Yu (GY), Xeneca
Kevin Hosler (KH), MOE	Dave Thomson (DT), Dowland
AnnaMaria Cross (AC), MOE	Karen Sounders (KS), KBM
Ross Lashbrook (RL), MOE	Al Harris (AH), Northern Bioscience
Paul Norris (PN), OWA	Tami Sugarman (TS), WESA
Colin Hoag (CH), OWA	

Meeting Purpose: To clarify the requirements for roads assessment under the OWA Waterpower Class EA

CH provided a short overview of the purpose of the call which was to determine what the requirements are for roads assessment under the OWA Waterpower Class EA. She indicated that MOE had internally reviewed the Class EA and indicated that roads are within the project components and also under the Glossary of Terms. She further noted that she was not entirely current on Xeneca's approach.

MH mentioned the OWA Class EA does not clearly say what is required for roads assessment. There may be different interpretations of the requirements. Xeneca had discussed different approaches with consultants. He updated Xeneca's approach by noting that Xeneca is currently undergoing a very robust desktop review incorporating ELC, GIS information, MNR's input values, and also forestry resource inventories with an intention to avoid any sensitive areas or private properties. If any roads were transecting private property, Xeneca would engage in discussions with those parties. The next phase would involve a ground assessment to confirm the desktop review. He noted ground assessment would be in the EA. MH also mentioned the routes information was presented to the Public and FNs.

MH noted that there were two tracks: those that were on a fast-track process because of timeline constraints and those that have greater flexibility on deadlines. For projects requiring fast tracking MH noted that Xeneca would assess within a 500 m wide swath and that if sensitive values were identified in the desktop review, Xeneca would re-route the roads around the feature to avoid it, or otherwise address, assess and mitigate any impacts all of which will be included in the final ER. This approach was under development by Dowland Inc. and Northern Biosciences and KBM since last October and is intended specifically to meet the requirements of the OWA Class EA.

DT noted that Northern Bioscience (Al Harris) and KBM have been engaged to conduct a detailed desktop review followed by spring field work to identify areas of significant habitat and potential impacts. DT indicated that this activity would like occur based upon appropriate weather during mid-spring, which was likely to occur in late April or the first two weeks of May of this year. DT further indicated that KBM Forestry was compiling an assessment of the GIS database in order to focus the assessment. With assistance of new ELC data, GIS information and MNR input, new roads will be fully

sampled. Through verification of significant habitat, if any candidate significant habitat exists, mitigation and follow-up monitoring will be implemented. The process would be applied differently site by site.

CH indicated her appreciation that Xeneca was getting on the ground assessment information. She then raised concerns about archaeology assessment for roads as well. DT indicated that Woodland Heritage would be conducting Stage 1 and Stage 2 on the ground assessments, and that in one case Wanatango, there would be a Stage 3 assessment. DT indicated that Woodland was of the view that all of the fieldwork could be completed by the end of June with reports following shortly thereafter. MH indicated that for the roads, there was unlikely to be many areas of high potential, but they would focus on obvious areas such as water crossings and known portage trails. MH reconfirmed however, that on-the-ground assessment work would occur for archaeology.

MH also noted three Stage 3 sites are known within Wanatango project footprint. One could be avoided and mitigation measures would occur. The other two sites, he noted that Stage 3 and 4s were likely to be conducted. Aboriginal consultation was occurring for archaeological work on this site. CH reiterated that avoidance strategies should be employed for Wabagishik Rapids and the appropriate protocols would need to be put in place in consultation with the MTCS. MH told CH that Xeneca's archaeology consultant will provide written confirmation of avoidance and monitoring protocols to MTCS.

Commenting on Xeneca's proposed assessment plans CH said that from what she had heard, this was much more detailed than she had previously understood and that the approach through a robust desktop study to help field assessment looked good and appeared to be sound. She then asked whether LB or MM were in a position to speak to specific projects. They indicated that for the purposes of this call, they were not in a position to speak to these issues. LB did note that Marter Twp. was scheduled for discussion next week. CH reiterated that, notwithstanding today's discussions, there was no final decision of assessment on any of Xeneca's projects. She noted however, that if the discussed process was being followed, this would appear to meet the intent of the Class EA.

PA noted that these discussions with MOE were intended to provide advice to proponents about the requirements to meet the Class EA and good process has been made. She noted that the appropriate staff appeared to be on the call. She reminded Xeneca that it was important, notwithstanding the discussion, to adequately and properly document in the Environmental Reports all work that is being undertaken

MH then asked about the adequacy of the assessment process proposed for projects that were on the fast track. CH indicated Xeneca's approach appeared sound.

MH observed that the roads assessment requirements for OWA Class EA are different than what is required for the forestry industry and it would be helpful to understand why there is such a substantive difference. At some future point, the waterpower industry might ask why it is being required to adopt a more rigorous approach than the forestry industry.

He noted it is good to have confirmation on the approach to construction of new roads, but questions remain regarding upgrades to existing roads, how much assessment was required? CH responded by indicating that the proponent was required to fully describe the project area and its potential impact, but indicated that MOE was always open to discussion and clarification on whether a particular approach would be appropriate. MH noted that the purpose of these calls in these instances is to get clarification, so as to ensure that we can properly scope the necessary work, and avoid receiving future comments that "the assessment was inadequate and did not meet the requirements of the Class EA".

MH then turned to PN for an industry perspective. PN noted that he has been invited to join the call to speak to industry issues and indicated his appreciation to participate. He noted that 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. He went on to note that this was part of a planning process and that the purpose of these assessments was to lead to the issuance of interim tenure to the proponents so that they could proceed with their projects. He then noted that on the broader challenge of policy interpretation, the OWA would continue to work with MOE's policy shop to address these issues.

In wrapping up the call, PA noted that, while the MNR had been invited to participate, it appeared that they could not send a representative today. PA reminded Xeneca that MNR should be looped into the same discussions as today's. She noted MNR is ultimately required to provide a disposition of the Crown Resource, and that any disposition must be consistent with Crown Stewardship EA requirements. MH responded that while MNR was not on the call today, KBM and Dowland had been in discussion with MNR for several months in the course of developing this approach. In previous discussions with Sudbury and Chapleau Districts, MNR had indicated they were comfortable with the proposed approach; the requirements of the Lands and Rivers Improvement Act (LRIA) are met.

From: Stephanie Hodsooll <SHodsooll@xeneca.com>
Sent: May-07-13 12:12 PM
To: McDonald, Lauren (MNR); Walker, Shaun (MNR); White, Rosanna (ENE)
Cc: Kristi Beatty; Scott Manser; Uwe Roeper; Nava Pokharel; Mark Holmes; Ed Laratta; Eggers, Kelly; Muriel Kim; Greenaway, Christine (MNR); Moro, Eleanor (MNR)
Subject: RE: Marter - Degree vs Degree-Day Approach

Thanks Lauren.
Rosanna, do you have any comments on this approach?
Thanks,
Steph

Stephanie Hodsooll
Stakeholder Relations
Xeneca Power Development
5255 Yonge St., Suite 1200
North York, ON M2N 6P4
(416) 590-3077

From: McDonald, Lauren (MNR) [<mailto:Lauren.McDonald@ontario.ca>]
Sent: Tuesday, May 07, 2013 9:48 AM
To: Stephanie Hodsooll; Walker, Shaun (MNR)
Cc: Kristi Beatty; Scott Manser; Uwe Roeper; Nava Pokharel; Mark Holmes; Ed Laratta; White, Rosanna (ENE); Eggers, Kelly; Muriel Kim; Greenaway, Christine (MNR); Moro, Eleanor (MNR)
Subject: RE: Marter - Degree vs Degree-Day Approach

Hi Stephanie,

Determinations for what is considered acceptable in the EA fall to MOE – I am deferring your question to Rosanna.

Any comments on the EA provided by MNR will be based on whether the information and proposals provided in the EA are acceptable for determinations with regards to permits and approvals. There are likely multiple methods that could be employed to effectively mitigate impacts to spawning fish within the Marter Township project site - to make a determination as to whether the proposed method is acceptable for issuance of permits and approvals, MNR will be using information derived from peer-reviewed journal articles and expertise provided by species experts during our review. We are happy to work with Xeneca and their consultants to discuss their chosen methods.

Regards,
Lauren

Lauren McDonald
Management Biologist, Kirkland Lake/Claybelt Area
Ontario Ministry of Natural Resources
Kirkland Lake District
Tel. (705) 568-3241
Fax (705) 568-3200
Email: lauren.mcdonald@ontario.ca

From: Stephanie Hodsooll [<mailto:SHodsooll@xeneca.com>]
Sent: May 3, 2013 10:56 AM

To: McDonald, Lauren (MNR); Walker, Shaun (MNR)

Cc: Kristi Beatty; Scott Manser; Uwe Roeper; Nava Pokharel; Mark Holmes; Ed Laratta; White, Rosanna (ENE); Eggers, Kelly; Muriel Kim

Subject: Marter - Degree vs Degree-Day Approach

Good morning Lauren!

Regarding the current degree versus degree-day (cumulative thermal units) discussion, we would like to go ahead and put out the Marter EA with our current degree proposal.

We are trying very hard to get the final EA out, and changing to the degree-day methodology would only contribute to further delays.

However, we propose that during permitting and Water Management Planning, we work with you and Kristi at ORMG to see what the degree-days proposal would look like. We could change to a degree-days approach at that time if it is appropriate.

Please let me know what you think of this approach.

Yours truly,
Steph

Stephanie Hodson

Stakeholder Relations

Xeneca Power Development

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North York, ON M2N 6P4

(416) 590-3077

From: White, Rosanna (ENE) <Rosanna.White@ontario.ca>
Sent: June-18-13 1:30 PM
To: Stephanie Hodsoll
Cc: McDonald, Lauren (MNR); Walker, Shaun (MNR); Eggers, Kelly

Hi Stephanie,

Apologies for how long it has taken to respond to your e-mail but your query caused me to do some internal research with respect to operating plans and related matters vis a vis what is best provided as part of the EA process. In general, MOE is of the view that key aspects of the Operating Plan that deal with environmental issues and their mitigation are best dealt with as part of the environmental assessment process. With regard to your question, while it is preferable to have details such as the spawning timeframes finalized during the EA process, in this case both MNR and DFO have indicated that there may be an opportunity to include a clearly worded commitment to the development of a thermal based approach (timing) in the ER and associated operating plan to address any and all fish spawning concerns identified by MNR and/or DFO prior to this issuance of regulatory approvals from either agency. If you decide to take this approach, I would recommend that all aspects of this proposal that are known at the time of ER submission, such as the fact that the facility will be operated as Run of River during the spawning periods dictated by this thermal approach, should be included in the final ER. The final ER should show the work that has been done to date on this matter (so keeping what has already been done in there and including MNR's proposed changes from their previous comments) and then also stating that the details of the final thermal based approach will be agreed to with MNR and DFO at the permitting stage.

If you have questions about this let me know. Cheers, Rosanna

Rosanna White
Environmental Planner/EA Coordinator
Technical Support, Northern Region
Ministry of Environment
199 Larch St, Suite 1201
Sudbury, Ontario, P3E 5P9
P: 705-564-7170 F: 705-564-4180

Subject: MOE letter - DZOI & Min Flows
Attachments: final comments 2013 OP approach.doc

From: White, Rosanna (ENE) [<mailto:Rosanna.White@ontario.ca>]
Sent: Thursday, July 04, 2013 9:58 AM
To: Stephanie Hodsoil
Cc: Turnbull, Brian (ENE); Walker, Shaun (MNR); kelly.egggers@dfo-mpo.gc.ca; Allen, Paula (ENE)
Subject: MOE letter

Hi Stephanie,

The MOE letter I was referring to when we had our phone call a few weeks ago is attached as it is relevant to the discussion tomorrow. The signed copy of the letter is in the mail as of this morning and will be faxed to you shortly.

Also, I wanted to be clear that, with respect to Minutes or meeting titles that refer to closing or final discussions that this should be identified as Xeneca's perspective. MOE does work to be responsive to proponent proposals and, as such, continues to analyze these. In this case, MOE is requesting additional information for both the minimum flow proposal and the downstream zone of influence as per the Class EA requirements.

Thanks, Rosanna

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Wednesday, July 3, 2013

Mr. Uwe Roeper, CEO
Xeneca Power Development Inc.
5255 Yonge Street, Suite 1200
Toronto, Ontario
M2N 6P4

Re: Marter Township Hydroelectric Generating Station Proposal – Ministry of Environment (MOE) Key Comments on Xeneca's New Proposed Approach to Operations

Dear Mr. Roeper,

Further to the technical meeting of May 13, 2013 to discuss the new proposal to operate in a way that would consider the cumulative effects of the Marter project and the Misema Generating Station, the Ministry of Environment (MOE) has now prepared technical comments on this proposed approach. While I appreciate the fact that your latest operating plan proposal does begin to consider the cumulative effects of your proposal and the Misema operation, I would like to clarify some of the issues that came up during the May 13 technical meeting.

1. Xeneca Perspective regarding Downstream Zone of Influence

At the May 13 meeting Xeneca indicated that their new approach to operations would result in a hydrologic downstream zone of influence that goes no further than the Misema confluence. MOE does not have sufficient information to understand what the downstream zone of influence is as yet. Information is needed on the frequency, rate of change and magnitude of water flows that could be altered downstream as a result of the project.

2. Minimum Flow

With respect to the proposed new minimum flow of 2.3/2.5 cms, Xeneca also needs to provide appropriate rationale for this including how their proposal compares to existing conditions.

3. Requirements of the Class EA

In order to meet the requirements of the Class EA Xeneca's proposal needs to consider and document any environmental effects that would result from the proposed operating plan approach. As stated above, with respect to the downstream hydrological effects MOE will need to understand any changes that could occur to environmental conditions as a result of the

proposed operation including those related to:

- frequency;
- magnitude;
- duration;
- timing; and
- rate of change.

I refer you to section 4.2.2. of the Class EA for Waterpower projects dealing with the identification of potential effects of a project. "An effect is any change to the environment, positive or negative, that could occur as a result of the project.... This Class EA requires the proponent to assess the potential effects as well as any net effects after mitigation and focuses on those effects common to waterpower projects." (p. 34).

If you have any questions about the matters identified in this letter please contact me at 705-564-7170 or rosanna.white@ontario.ca.

Sincerely,



Rosanna White
Environmental Assessment Coordinator
Northern Region
Ministry of Environment

c.c. Brian Turnbull, Hydrologist, Ministry of Environment
Shaun Walker, District Planner, Ministry of Natural Resources

Subject: FW: SW comments: Xeneca's 'Screening Assessment- Water Temperature- Blanche River (Marter Twp)
Attachments: SW review of Screening Assessment- Water Temp Jul 3 2013.doc

From: White, Rosanna (ENE) [<mailto:Rosanna.White@ontario.ca>]
Sent: Wednesday, July 03, 2013 2:49 PM
To: Stephanie Hodsohl
Cc: Walker, Shaun (MNR); Turnbull, Brian (ENE); McDonald, Lauren (MNR) (Lauren.McDonald@ontario.ca)
Subject: FW: SW comments: Xeneca's 'Screening Assessment- Water Temperature- Blanche River (Marter Twp)

Hi Stephanie,

Here are the MOE comments on the thermal regime paper. If you would like to discuss these on July 5 let me know and I can invite our surface water specialist to join the meeting for that agenda item.

Thanks, Rosanna

Rosanna White
Environmental Planner/EA Coordinator
Technical Support, Northern Region
Ministry of Environment
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Sudbury, Ontario, P3E 5P9
P: 705-564-7170 F: 705-564-4180

From: Maciaszek, Eva (ENE)
Sent: July 3, 2013 1:10 PM
To: White, Rosanna (ENE)
Subject: SW comments: Xeneca's 'Screening Assessment- Water Temperature- Blanche River (Marter Twp)

Hi Rosanna,

Please find attached my comments on Xeneca's 'Screening Assessment- Water Temperature- Blanche River (Marter Twp)

Eva

Ministry of the Environment

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July 3, 2013

MEMORANDUM

TO: Rosanna White
Environmental Planner/ EA Coordinator
Technical Support, Northern Region

FROM: Eva Maciaszek
Surface Water Specialist
Technical Support, Northern Region

RE: Xeneca Power Development Inc.- Blanche River Marter Township Generating Station- Screening Assessment- Water Temperature

As requested, I reviewed the Screening Assessment- Water Temperature- Blanche River (Marter Twp) Ortech Reference #61001, prepared by Ortech Power and dated April 16, 2013.

Thermal Stratification

Negative impacts resulting from temperature changes at hydroelectric power generating sites are most likely to occur in the event of thermal stratification in the reservoir. The Marter Township GS reservoir is projected to have a maximum depth of 7 meters. At this depth stratification is not likely to occur. **Sampling to complete temperature profiles of the reservoir should be carried out over three consecutive years between July 15 and August 15 to confirm lack of thermal stratification in the reservoir.**

If thermal stratification were to occur, it could lead to relatively warmer water being discharged from the epilimnion, leading to temperature increases in the downstream. This could negatively affect aquatic species that are sensitive to thermal changes. Use of a bottom draw system could be used to mitigate the increase in temperatures in the discharge by drawing colder waters from the bottom of the reservoir.

Thermal stratification may also result in an anoxic hypolimnion and possible formation of hydrogen sulphide gas. These conditions would negatively impact on fish and fish habitat when the reservoir is stratified as well as during the time of reservoir turnover when the anoxic waters in the hypolimnion mix with the remaining water column. Impacts may occur both, within the reservoir and downstream of the dam. Implementation of a system with multi-level intakes would be recommended to mitigate this situation.

Open Water Surface Area

In the screening report, the consultant provided a ratio of proposed inundation area to the existing open water area in the watershed. Considering the existing watershed open water area rather than existing area between where dam will be placed and upstream location up to which

inundation will reach, local impacts are obscured. Though on a watershed level, impacts may be minimal, on a localized level, they may be significant. Table 2 in the same report shows that post project inundation area (22 ha) will be more than twice the size of the pre-project inundation area (9 ha).

SUMMARY OF RECOMMENDATIONS

1. Sampling to complete temperature profiles of the reservoir should be carried out in three consecutive years between July 15 and August 15 to confirm lack of thermal stratification in the reservoir.
2. If thermal stratification has the potential to occur, mitigative measures in the form of bottom draw or multi-level draw systems should be considered.

If you have any questions or would like to discuss these comments please do not hesitate to contact me.



Eva Maciaszek

EM/EM

c: Brian Turnbull, MOE Northern Region Office (Sudbury)
(U:\HydroPower\Blanche R_ Xeneca- Marter Twp)



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July 5, 2013

Rosanna White
Environmental Planner/EA Coordinator
Technical Support, Northern Region
Ministry of Environment
199 Larch St, Suite 1201
Sudbury, ON P3E 5P9

Dear Rosanna:

Re: Review of Screening Assessment – Marter Water Temperature

Thank you for the July 3, 2013 letter from MOE with input and comments on the Marter Thermal Report.

We received MOE's recommendations for the report as follows:

1. Sampling to complete temperature profiles of the reservoir should be carried out in three consecutive years between July 15 and August 15 to confirm lack of thermal stratification in the reservoir.
2. If thermal stratification has the potential to occur, mitigative measures in the form of bottom draw or multi-level draw systems should be considered.

This monitoring request will be added to the monitoring section of the Monitoring Plan and will be reflected in the final Environmental Report (ER.)

If you have any further questions, please let me know.

Yours truly,

A handwritten signature in black ink that reads "Steph Hodson".

Steph Hodson
Stakeholder Relations Officer
Xeneca Power Development
416-590-3077
shodsoll@xeneca.com

From: Mark Holmes <mholmes@xeneca.com>
Sent: July-15-13 11:58 AM
To: White, Rosanna (ENE); Stephanie Hodsoll; Vanesa Enskaitis; Greenaway, Christine (MNR); Walker, Shaun (MNR); McDonald, Lauren (MNR); Turnbull, Brian (ENE); Scott Manser; Nava Pokharel; Uwe Roeper; Muriel Kim; Kristi Beatty; Eggers, Kelly; Ed Laratta; Cormier, Bertha (MNR); Pyrce, Rich (MNR); Moro, Eleanor (MNR); Arnold Chan; Ciara DeJong; Dosser, Sandra (MNR); Grace Yu; Uwe Roeper
Subject: RE: Marter Discussion - Continued

Rosanna:

Thanks for clarifying and I think your comments will help frame the discussion. Looking forward to speaking with you this afternoon.

Mark

From: White, Rosanna (ENE) [<mailto:Rosanna.White@ontario.ca>]
Sent: Monday, July 15, 2013 9:03 AM
To: Mark Holmes; Stephanie Hodsoll; Vanesa Enskaitis; Greenaway, Christine (MNR); Walker, Shaun (MNR); McDonald, Lauren (MNR); Turnbull, Brian (ENE); Scott Manser; Nava Pokharel; Uwe Roeper; Muriel Kim; Kristi Beatty; Eggers, Kelly; Ed Laratta; Cormier, Bertha (MNR); Pyrce, Rich (MNR); Moro, Eleanor (MNR); Arnold Chan; Ciara DeJong; Dosser, Sandra (MNR); Grace Yu; Uwe Roeper
Subject: RE: Marter Discussion - Continued

Hi Mark,

I was away on Friday so am just reading your e-mail now. I am fine with speaking to item 1 but I would like to clarify the scope of what I will be discussing as per my phone discussion the other day with Uwe. I had said I could provide some background / context to the MOE letter of July 3 where we provided technical comments on the topics of downstream zone of influence and minimum flow. Our comments in that letter related to certain steps in the Class EA process so that is what I will be speaking about for agenda item #1.

Thanks, Rosanna

Rosanna White
Environmental Planner/EA Coordinator
Technical Support, Northern Region
Ministry of Environment
199 Larch St, Suite 1201
Sudbury, Ontario, P3E 5P9
P: 705-564-7170 F: 705-564-4180

From: Mark Holmes [<mailto:mholmes@xeneca.com>]
Sent: July 12, 2013 3:28 PM
To: Stephanie Hodsoll; Vanesa Enskaitis; Greenaway, Christine (MNR); Walker, Shaun (MNR); McDonald, Lauren (MNR);

White, Rosanna (ENE); Turnbull, Brian (ENE); Scott Manser; Nava Pokharel; Uwe Roeper; Muriel Kim; Kristi Beatty; Eggers, Kelly; Ed Laratta; Cormier, Bertha (MNR); Pyrce, Rich (MNR); Moro, Eleanor (MNR); Arnold Chan; Ciara DeJong; Dossier, Sandra (MNR); Grace Yu; Uwe Roeper

Subject: RE: Marter Discussion - Continued

Good afternoon all:

In advance of Monday's call we'd like to revise the agenda to better inform the discussion on DZOI.

1. Roseanne White to provide an overview of the EA planning process and how to meet the requirements
2. Uwe Roeper to provide history and context to the DZOI issue
3. Scott Manser to review May 9 memo on Marter Operating Plan
4. Discussion on questions raised at during the July 5 Conference Call

Thanks and best regards,

Mark Holmes

Vice President

Corporate Affairs

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are hereby notified that any review, retransmission, dissemination, distribution, copying, conversion to hard copy or other use of this communication is strictly prohibited. If you are not the intended recipient and have received this message in error, please notify me by return e-mail and delete this message from your system. Xeneca Power Development Inc.

-----Original Appointment-----

From: Stephanie Hodson

Sent: Friday, July 05, 2013 12:23 PM

To: Stephanie Hodson; Mark Holmes; Vanesa Enskaitis; 'Greenaway, Christine (MNR)'; Walker, Shaun (MNR); McDonald, Lauren (MNR); White, Rosanna (ENE); 'Turnbull, Brian (ENE)'; Scott Manser; Nava Pokharel; Uwe Roeper; Muriel Kim; Kristi Beatty; Eggers, Kelly; Ed Laratta; Cormier, Bertha (MNR); Pyrce, Rich (MNR); Moro, Eleanor (MNR); Arnold Chan; 'Ciara DeJong'; Dossier, Sandra (MNR); Grace Yu

Subject: Marter Discussion - Continued

When: Monday, July 15, 2013 1:00 PM-4:30 PM (UTC-05:00) Eastern Time (US & Canada).

Where: 1-877-394-5901/416-548-6023, Access Code 9749187

Call to continue with agenda from July 5, 2013

Topics to be discussed

- (1. Conclude DZOI Discussion from July 5)
2. Minimum Flow Requirements
3. Flow Splitting – Tailrace & Spillway
4. Operating around TransAlta
5. Erosion & Sedimentation Monitoring
6. Degree-Day vs. Degree Approach
7. Aboriginal Consultation
8. Public Consultation
9. Updates to Marter Operating Plan
10. Updates to Marter Monitoring Plan
11. MOE Update re. Misema GS (if available.)

Subject: FW: Response to Xeneca's Oct 19, 2012 letter (responding to MOE's comments)

From: White, Rosanna (ENE) [<mailto:Rosanna.White@ontario.ca>]
Sent: Thursday, July 25, 2013 2:00 PM
To: Stephanie Hodsohl
Subject: FW: Response to Xeneca's Oct 19, 2012 letter (responding to MOE's comments)

Hi Stephanie,

I wonder if it was this e-mail (see below)? I had received an e-mail from our surface water reviewer in response to the January, 2013 letter and charts that Xeneca had sent to us in response to our comments on the draft ER. You will see below that I sent you that e-mail on March 25, 2013. I do recall mentioning in one of our meetings that I had these comments that I was going to be sending you but it wasn't specifically related to the meeting topics we were discussing that day (which might explain why it didn't end up in the meeting minutes).

Could this solve the mystery? Other than that I can't find any comments she has sent me recently except the temperature screening ones.

Let me know if this could be correct.

Cheers, Rosanna

Rosanna White
Environmental Planner/EA Coordinator
Technical Support, Northern Region
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From: Maciaszek, Eva (ENE)
Sent: March 25, 2013 3:51 PM
To: White, Rosanna (ENE)
Subject: Response to Xeneca's Oct 19, 2012 letter (responding to MOE's comments)

Hi Rosanna,

Below are a couple of issues that still need clarification (based on Xeneca's response letter (Oct 19, 2012) to MOE comments).

Fish Tissue Analysis

Xeneca's response under 'Fish Tissue Analysis' refers to 'operational monitoring' only. Baseline fish tissue monitoring should also be completed. Baseline and post-development fish tissue monitoring should follow the MOE guidelines outlined in *From Class EA to Permit to Take Water: A Guide to Understanding the Ministry of the Environment's Technical Requirements for Waterpower*, dated January 2012.

Water Quality Monitoring During Construction Activities

The ER report proposed weekly monitoring of water quality during construction in their Construction Management Plan. No monitoring frequency was committed to in Xeneca's response letter. MOE has recommended daily monitoring of pH, turbidity and TSS. TSS can be monitored weekly once a correlation is established between TSS and turbidity, and is approved by the District Manager.

MOE also recommends that monitoring of water discharge to the environment should be carried out throughout the dewatering process and not just as a contingency measure.

If an un-ionized ammonia limit is to be observed (as proposed by Xeneca), temperature should be monitored along with pH and total ammonia to allow for the determination of un-ionized ammonia concentrations in the discharge.

Thanks, Eva

Subject: FW: MOE Comment Letter - Marter Township Project
Attachments: signed Marter DSZOI letter.doc

From: White, Rosanna (ENE) [<mailto:Rosanna.White@ontario.ca>]
Sent: Friday, November 15, 2013 2:27 PM
To: Stephanie Hodsoil
Cc: Turnbull, Brian (ENE); Walker, Shaun (MNR); McDonald, Lauren (MNR); Pyrce, Rich (MNR); Eggers, Kelly; Kentish, Lianne (ENE)
Subject: MOE Comment Letter - Marter Township Project

Hi Stephanie,

Further to our action item of Sept. 19 and as follow up to the August 26 technical meeting, I am providing MOE's technical comments on the Scott Manser report of August 23, 2013.

Thanks, Rosanna

Rosanna White
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Friday, November 15, 2013

Mr. Uwe Roeper, CEO
Xeneca Power Development Inc.
5255 Yonge Street, Suite 1200
Toronto, Ontario
M2N 6P4

Re: Marter Township Hydroelectric Generating Station Proposal – Ministry of Environment (MOE) Comments on Hydrologic Downstream Zone of Influence (DSZOI)

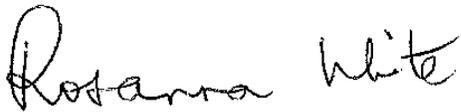
Dear Mr. Roeper,

Further to the technical meeting of August 26, 2013 and Xeneca's submission of the Ortech Environmental Analysis paper of August 23, 2013 in relation to the hydrologic downstream zone of influence (DSZOI) discussion for this project, Ministry of Environment (MOE) is writing to provide technical comments on the Ortech paper and to provide additional context for these comments.

While I apologize for the delay in providing these technical comments, MOE felt it was important at this juncture to review the file with respect to the history of the hydrologic DSZOI discussions for the Marter Township project. As a result of this review, it is clear that MOE has been consistent from the outset of project discussions on this topic in requesting information related to the geographic extent of the hydrologic DSZOI as per the Waterpower Class EA. This provides context for the current technical comments that are provided in Attachment 1 as MOE is still in need of supporting information in order to evaluate the extent of the proposed hydrologic DZOI for this project.

If you have any questions about this letter please contact me at 705-564-7170. For questions related to the technical comments in Attachment 1 please contact Brian Turnbull at 705-564-3253.

Sincerely,

A handwritten signature in black ink that reads "Rosanna White". The signature is written in a cursive style with a large initial 'R'.

Rosanna White
Environmental Assessment Coordinator
Northern Region
Ministry of Environment

c.c. Brian Turnbull, Hydrologist, Ministry of Environment
Shaun Walker, District Planner, Ministry of Natural Resources

Attachment 1: MOE Technical comments

Attachment 1: MOE Technical Comments (prepared by Brian Turnbull) on Scott Manser Report (August 23, 2013 Analysis of Water Survey Canada Gauge Station 02JC008, Blanche River, ON and Ontario Ministry of Natural Resources Temporary Gauge Station, Hwy 624)

MNR Transducer Analysis review

As requested, I have reviewed the latest report produced by Scott Manser (dated Aug. 23, 2013), that provided an analysis of the MNR transducer placed on the Blanche River near HWY 624.

The objective of my review was to assess the suitability of the modelling approach and respond to specific issues identified in my earlier comment to the company. There remain several outstanding issues that need to be resolved.

Issues Identification:

Issue 1: The use of MNR Data

The report indicated that the model results coincided with the observations from an MNR transducer on the Blanche River near HWY 624. The original purpose of the MNR transducer installation was to provide insight into downstream flow alteration from the Misema project.

Comment:

While the MNR data may be useful in understanding water level fluctuations, its use for validation should be only considered in reference to the condition which occurred during that time period. It would be expected that to validate the model, the MNR collected data would be compared to simulated conditions replicating what occurred at the time, and not the operation proposed for the Marter site.

Issue 2: Current Hydrological Conditions

It remains unclear whether the operation of Misema is captured in the unsteady flow model results. While the model has been further updated with additional bathymetry, questions as to the input data are still outstanding. More specifically, the following needs to be clearly defined:

- Updated minimum instream flows
- Properly assessing flows that presently occur on the Misema River.

For example, data observed at the Water Survey of Canada (WSC) gauge (02JC008) and presented in the March 27th 2013 and May 9th 2013 memo show Misema operating in a way not consistent with the unsteady model simulation from January 21, 2013. As previously identified in our comments, the results on the downstream reach (further downstream than WSC station) could be used to characterize current condition and the proposed alterations. These recommendations have previously been provided (Taylor, J., re: Draft Environmental Report for Marter Township Hydroelectric Generating Station Project Blanche River, 19th October, 2012) and have yet to be fully addressed. Failure to provide this important information may jeopardize our ability to process your PTTW in the future.

Issue 3: Minimum instream flow

The minimum flows proposed in the “work around” approach are not satisfactory to the MOE. Further justification for the proposed minimum flow to ensure the natural function of the river reach is required. For comparison to commonly used statistics, the table below is provided. Drainage basin analysis indicates along the Blanche River before Englehart there are minimal tributaries before Moosehorn Creek. While steady flow analysis has been completed for a section downstream of Stuarts Rapids, understanding the entire reach which will be influenced by the proposed minimum flows should be considered.

	At Marter Site				At WSC Gauge 02JC008		
	Proposed (cms)	Median Baseflow (cms)	Q80	Q99	Proposed (cms)	Median Baseflow (cms)	Q99
Jan	0.5	4.2	3.9	2.51	2.3	6.94	4.05
Feb	0.5	3.3	3.2	2.32	2.3	5.45	3.82
Mar	0.5	9.5	3.1	2.46	2.3	5.43	4.06
Apr	0.5/*ROR	21.2	10.2	3.17	2.3/*ROR	15.22	4.93
May	0.5/*ROR	9.1	18	7.21	2.3/*ROR	34.89	10.59
Jun	0.5/*ROR	5.1	8.7	4.44	2.3/*ROR	14.99	7.74
Jul	0.5	3.2	4.1	1.87	2.3	8.22	3.32
Aug	0.5	2.9	2.8	1.42	2.3	5.23	3.05
Sept	0.5	5.1	2.4	1.51	2.3	4.75	2.88
Oct	0.5	8.3	4.7	2.17	2.3	8.42	3.62
Nov	0.5	6.2	7.9	4.41	2.3	13.74	7.13
Dec	0.5	4.2	5.9	3.47	2.3	10.48	5.52

Issue 4: Modeling Calibration

It is currently unclear from the unsteady flow model report (from January 21, 2013) if an additional report showing calibration/validation downstream of the Water Survey of Canada gauge 02JC008 has been completed.

It was previously understood that pressure transducers downstream of 02JC008 were to be installed to allow for further calibration. It has been reported that these were installed, but were not used for model calibration.

Comment:

It is recommended that Xeneca provide updated tables showing calibration performance under various measured/observed flows. Validation would be used to confirm model performance and allow for a determination of resulting error.

Issue 5: Innudation modelling

It was previously noted (Taylor, J., October 19, 2012) that MOE had concerns with the implementation of the steady state model. The MOE will expect the proponent to meet the commitments to headpond extent as previously outlined, or provide updated modelling outlining the upstream extent under the currently proposed design. In addition, any potential effects to nearby users should be identified; including both upstream and downstream.

Conclusions/Recommendations

In summary, MOE recommends using the current model as previously developed, and modifying the inflows so they represent estimated conditions for 2012-2013 (such as the data presented in the March 9th 2013 memo by Scott Manser and the water level collected by Xeneca in 2012-2013). The data collected along the river at several locations, as well as downstream near HWY 624 collected by MNR could then be used to better understand the model results and potential error. Once validated in this way, the proposed operations could be used to evaluate the effects.

From: Stephanie Hodson <SHodson@xeneca.com>
Sent: November-26-13 1:54 PM
To: White, Rosanna (ENE)
Cc: Turnbull, Brian (ENE); Walker, Shaun (MNR); McDonald, Lauren (MNR); Pyrcce, Rich (MNR); Eggers, Kelly; Kentish, Lianne (ENE); Uwe Roeper; Mark Holmes; Ed Laratta; Mohammed Hansa; Muriel Kim
Subject: RE: MOE Comment Letter - Marter Township Project
Attachments: Xeneca Response to MOE_Marter_26nov13.pdf; signed Marter DSZOI letter.doc

Hi Rosanna,

Thanks for MOE's November 15, 2013 letter regarding the proposed Marter Twp. project.
Please see attached Xeneca's response.

Yours truly,
Steph

Stephanie Hodson

Stakeholder Relations Manager | Xeneca Power Development | 5255 Yonge St., Suite 1200, North York, ON M2N 6P4 |
Tel: (416) 590-3077

From: White, Rosanna (ENE) [<mailto:Rosanna.White@ontario.ca>]
Sent: Friday, November 15, 2013 2:27 PM
To: Stephanie Hodson
Cc: Turnbull, Brian (ENE); Walker, Shaun (MNR); McDonald, Lauren (MNR); Pyrcce, Rich (MNR); Eggers, Kelly; Kentish, Lianne (ENE)
Subject: MOE Comment Letter - Marter Township Project

Hi Stephanie,

Further to our action item of Sept. 19 and as follow up to the August 26 technical meeting, I am providing MOE's technical comments on the Scott Manser report of August 23, 2013.

Thanks, Rosanna

Rosanna White
Environmental Planner/EA Coordinator
Technical Support, Northern Region
Ministry of Environment
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5255 Yonge St., Suite 1200, North York, ON M2N 6P4
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November 26, 2013

Ms. Rosanna White
Environmental Planner/EA Coordinator
Technical Support, Northern Region
Ministry of Environment
199 Larch St, Suite 1201
Sudbury, Ontario, P3E 5P9

Re: MOE letter - Marter Township Hydroelectric Generating Station Proposal – Ministry of Environment (MOE) Comments on Hydrologic Downstream Zone of Influence (DSZOI), November 15 2013

Dear Ms. White,

Thank you for providing the MOE comments on the technical paper by ORTECH dated August 23, 2013 and the technical meeting on August 26, 2013. The comments do not reference the additional technical paper by ORTECH dated October 18, 2013; we trust this omission was an oversight. The comments appear to identify five (5) key issues:

- Inadequate model validation
- Inadequate definition of the existing condition
- Unsatisfactory minimum flows
- Inadequate model calibration
- Inadequate modeling of headpond extent

Please see our analysis and response below:

Inadequate Model Validation:

The comment, entitled “Issue 1: The use of MNR Data,” alleges that further modeling and validation analysis is required to properly assess the operation proposed for the Marter site. Respectfully, we do not agree.

In the context of the Environmental Assessment (EA) process, the purpose of the model was to predict how daily operational changes in water levels would attenuate downstream. In 2012, an unsteady state

model was submitted by Xeneca that clearly showed how water levels attenuate quickly with distance downstream. MOE rejected that model as not sufficiently well calibrated. Xeneca then proceeded to collect additional field data and re-ran the model. The updated model showed very little change in the resulting model predictions. Indeed the updated model showed that the first model had been overly conservative. The updated model clearly confirmed that water levels attenuate quickly with distance downstream. Xeneca hired independent and highly qualified professional engineers to carry out this work and we are confident that the results predict the expected project impacts in a highly defensible manner.

In relation to discussions on harmonizing operation with the existing operation on the Misema River, an analysis of available monitoring data showed that daily changes in water levels due to the operation by the existing Misema GS quickly attenuate downstream. The analysis was done by comparing the degree of water level fluctuations close to Misema GS (i.e. at Water Survey of Canada Gauge 02JC008) to the related level fluctuations downstream (i.e. using data from an MNR data logger located at the Englehart confluence.) It was discussed in meetings with agencies that this information strongly corroborates the results of the predictive model for the proposed Marter project. MOE has never acknowledged acceptance of this result, instead MOE is once again asking for more modeling work to be done (this time on a facility that we do not own or operate) to validate the results of our predictive model.

It is our assertion that modeling and analysis of existing conditions has been done in accordance with good engineering practice. It clearly demonstrates the attenuation of water levels with distance downstream as it relates to daily operation. The model provides reasonable predictions of project impacts and strong evidence that the proposed compliance commitments are readily achievable.

The results of the model, the intention to carry out daily operation and the firm commitments by the proponent not to exceed certain water level fluctuation have been clearly communicated to the public as part of the EA process. In this regard, we strongly believe the requirements of the EA process have been met as it relates to the proposed operation of the Marter project.

Inadequate Definition of the Existing Conditions:

The comment, entitled "Issue 2: Current Hydrological Conditions," alleges that more modeling work is required to define the existing condition. Xeneca has undertaken extensive work to define the existing condition, and we respectfully disagree with the assertion that more work is required.

The existing condition on the river is adequately defined by the available monitoring records. The data show the hydrology of the river with the existing Misema GS operating and with it not operating. The data also clearly show the attenuation of water levels downstream at times when the Misema GS is operating. It was our understanding from agency meetings that MOE accepted the available monitoring records as information that defines the existing conditions.

It is further suggested that the predictive model presented for the proposed Marter project does not adequately consider the existing operation of the existing Misema GS. For clarification, the predictive model assumes no operation at the existing Misema GS during the time of the model run. This is a reasonable model assumption because sometimes Misema GS operates, and sometimes it does not. The purpose of this model was to assess the degree of water level attenuation at times when Misema GS is not operating.

When the existing Misema GS is operating, Xeneca has firmly committed to harmonize the operation of the proposed Marter project with the operation with the existing Misema GS, such that the degree of water level alteration will be in the range of the existing operational conditions (i.e. with respect to amplitude, minimum and maximum water level fluctuations.) Since Xeneca has committed to operate within the existing condition, and since the existing condition is well defined in available monitoring data, it is unclear why MOE is insisting on predictive model results for this scenario.

The MOE comments make no mention of the above rationale on existing conditions, which was discussed during agency meetings and appeared to have been accepted, only to be raised again now, just prior to submission of the final ER.

We are deeply concerned about the additional comment that suggests MOE will not process Xeneca's PTTW permits unless this information is submitted. If so, please provide us with the definitive regulatory requirements for PTTW permits for this specific modeling request.

Unsatisfactory Minimum Flows:

The comment, entitled "Issue 3: Minimum instream flows" states that the "minimum flows proposed in the work around approach are not satisfactory to the MOE." We find this comment to be troubling because the comment text appears to allege that the proposed minimum flows do not meet MOE requirements; however, it does not provide the specific minimum flow values that must be met.

The proposed minimum flows are based on existing conditions and harmonization with the existing Misema GS operation (also referred to as 'work around' in various agency discussions.) To the extent that MOE has specific requirements for minimum flow, they should have been provided to Xeneca during the four-year EA consultation process. Please specify exactly what they are, and in what policy document we can find them.

The table included in the comment text quotes 60 different reference values. It is not clear which of these values MOE is putting forth as the values that would be satisfactory to MOE with regard to minimum flow. We further note some serious concerns with the values in the table:

1. The values represent statistical flow frequency reference values (Q80 and Q99 at two different locations) without indication as to how they are to be used.

2. The source of the values is not clear. The values do not match the hydrology report prepared by our consultant HATCH, nor do they match the analysis paper that is being commented on (Ortech Environmental Analysis paper of August 23, 2013.)
3. It would appear that the values were calculated by MOE based on daily average flow data. As was noted in agency meetings, hourly flow data should be used, since flows vary throughout the day due to operation of the existing Misema GS. Using daily flow data masks the minimum flow values related to the existing condition. As such, we find the presentation of values in this manner to be incorrect and their use as regulatory reference values to be without merit.
4. The available monitoring data clearly shows that minimum flow rates of 2.3 m³/s occur when the existing Misema GS is operating. Yet, all of the 60 different values listed in the table are higher than the value related to that existing condition. This would imply that MOE will require Xeneca to provide more flow than what occurs under existing conditions.
5. The comment makes no mention of the fact that the proposed value of 2.3 m³/s was based on existing conditions and solidly based on available monitoring data. It simply states the value as “proposed.” We are concerned that this will mislead or confuse members of the public. Further, it could lead to incorrect assumptions that the minimum flow proposed by Xeneca is much less than would occur under existing conditions and inadvertently discredit the information that we have provided to the public.

The values presented also appear to imply that MOE does not accept the existing condition that is based on the available monitoring data on the river (i.e. the hourly flow data which clearly shows that daily operation has been occurring on the river for the past 10 years.) In meetings, MOE has noted that it is not certain that the existing Misema GS “should be operating.” MOE has also noted that it has contacted the owner of Misema GS in regard to this matter.

It is not clear to us why MOE would, after many months of agency meetings, state that “minimum flows proposed in the work around approach are not satisfactory to the MOE,” when there appeared to be agency consensus at those meetings on the aspect of managing flows within the range of existing conditions.

Inadequate Model Calibration:

The comment, entitled “Issue 4: Modeling Calibration” requests additional calibration performance under various measured/observed flows. This matter was addressed.

Based on requests by MOE, Xeneca installed additional data loggers in the DZOI in the fall of 2012. As discussed in agency meetings, no operation has occurred by the existing Misema GS since then. Hence it is not possible to carry out the calibration performance work requested.

As noted above, MOE expressed certain reservations about the operation of the existing Misema GS and has contacted the owner on this matter. Since that time, no operation has been observed on the monitoring data. MOE appears to be aware of this situation as it is clearly reflected in the available data

from the Water Survey of Canada Gauge (02JC008.) It is not clear why MOE still requests work to be carried out for which data is simply not available.

The primary issue of public consultation under the EA process relates to defining the existing conditions and assessing the predicted changes, alterations and effects from the proposed Marter project. As already outlined in response to the first comment item, Xeneca strongly feels that this objective has been met. No further calibration work is required for the EA.

Inadequate Modeling of Headpond Extent:

The comment, entitled “Issue 5: Inundation modeling,” alleges that the modeling used to define the proposed headpond extent is inadequate. This is simply not correct; the headpond extent was fully and accurately determined.

The steps taken to define the headpond extent represent best engineering practice, and included the following:

- Existing topographic conditions were defined by a highly accurate LiDAR survey, measuring every square meter of terrain affected by the project.
- The dam height and normal operating level was then defined as per the conceptual engineering drawings for the proposed Marter project.
- The areal extent of the headpond, as it relates to the normal operating level under low inflow, was delineated on the affected terrain.
- A steady state hydraulic model was prepared to calculate pre- and post-project water level elevations under various flow conditions, including average flow, 1:2 year flood flow and 1:100 year flood flow.
- Maps were prepared to clearly delineating the headpond extent and changes in the pre- and post-project inundation conditions.
- Map information about inundation was provided to the public in information meetings, and specifically, to adjacent land owners in individual meetings and property negotiations.

In 2012, MOE requested additional calibration of the above work by adding additional bathymetric cross-sections at the upper end of the proposed headpond. In response, Xeneca retained a consultant to collect the additional data and update the models. The additional data and the updated model were made available to MOE in 2013. The updated model resulted in no change to the inundation maps and clarified that the original inundation mapping had been accurate and sufficient.

MOE appears to question the accuracy of the inundation mapping and deems the work done to-date as inadequate, yet the methodology used to carry out the inundation mapping is extremely sophisticated. To our knowledge, the work represents best engineering practice and results in highly accurate inundation predictions.

Summary

Your letter indicates that MOE is still in need of supporting information for the above topics in order to evaluate the extent of the proposed hydrologic DZOI for this project. We trust that the above clarifications and responses address this matter.

Please note that Xeneca has closely followed the guidance on DZOI provided by MNR on June 6, 2013 and endorsed by MOE on June 14, 2013. A detailed rationale has been drafted for inclusion in the final ER that specifically addresses the MNR guidance and the related concerns expressed by regulatory staff at the various meetings that have occurred since the Draft ER was issued. We will also be including detailed responses (with section references, where applicable) to each of the MNR comments made in the Draft ER and in subsequent meeting notes. We will also include the responses provided herein on these belated technical comments. We trust that this will fully address the topic of DZOI.

Regarding minimum flows, perhaps it would help to re-summarize some of the key aspects discussed at the various agency meetings. In summary, these aspects were:

- the minimum flow proposed relates only to temporary fluctuations of flow throughout the day;
- the average flow provided downstream on each day will equal the natural inflow for each day such that total flow volume, temperature and dissolved oxygen are not affected by the proposed operation;
- hydraulic models show that the effect of daily operation quickly attenuates with distance downstream (and is not the same as a persistent longer term depression in ecological baseflow);
- the minimum flow of 2.3 m³/s occurs frequently under existing conditions and there has been no evidence that it is harmful to the environment;
- hydraulic modeling shows that the river water levels would remain close to their average levels during daily operation;
- hydraulic models and depth measurements show that the river bed is deep and will not dry up when subject to the proposed operation;
- available hourly flow data shows that the proposed minimum flow is not inconsistent with existing conditions;
- hydraulic models show that the wetted perimeter standard of 50% as proposed in scientific literature would be met under the proposed operation;
- Xeneca has committed to operate within the range of existing conditions with respect to flows and levels downstream;
- special operating restrictions have been committed to during critical habitat functions (eg. spawning) as a special pre-caution;
- monitoring has been committed to verify the projected project impacts over time;
- adaptive management has been committed to where it is found over time that actual impacts are greater than projected project impacts; and
- all known environmental and stakeholder affects have been considered in the preparation of the ER.

We hope that MOE will recognize the enormous effort made over the past four years to fulfill the intent of the Class EA for Waterpower Projects and address agency comments. We look forward to your review of the final ER in the coming weeks.

Yours truly,

A handwritten signature in black ink, appearing to read 'Uwe Roeper', with a stylized flourish at the end.

Uwe Roeper, CEO
Xeneca Power Development
416-590-3060 (direct)
uroeper@xeneca.com

c.c. Brian Turnbull, Hydrologist, Ministry of Environment
Shaun Walker, District Planner, Ministry of Natural Resources

From: White, Rosanna (ENE) <Rosanna.White@ontario.ca>
Sent: January-21-14 2:10 PM
To: Stephanie Hodsoll
Subject: RE: update on MOE letter

Hi Stephanie,

Yes, I did get some time off so that was nice. Glad you had some vacation time as well.

Re the letter, I am still waiting for comments from our water group in order to finalize the letter. I'll let you know once I have an ETA.

Talk to you soon, Rosanna

Rosanna White
Environmental Planner/EA Coordinator
Technical Support, Northern Region
Ministry of Environment
199 Larch St, Suite 1201
Sudbury, Ontario, P3E 5P9
P: 705-564-7170 F: 705-564-4180

From: Stephanie Hodsoll [<mailto:SHodsoll@xeneca.com>]
Sent: January 21, 2014 12:05 PM
To: White, Rosanna (ENE)
Subject: RE: update on MOE letter

Hi Rosanna, just got back from vacation & going through my inbox.
Even though it seems like a very long time ago – hope you managed to have some downtime over the holidays & relax after a very busy 2013!
Do you have an ETA on this MOE letter?

Thanks,
Steph

Stephanie Hodsoll
Stakeholder Relations Manager | Xeneca Power Development | 5255 Yonge St., Suite 1200, North York, ON M2N 6P4 |
Tel: (416) 590-3077

From: White, Rosanna (ENE) [<mailto:Rosanna.White@ontario.ca>]
Sent: Monday, December 23, 2013 2:08 PM
To: Stephanie Hodsoll; Mark Holmes
Cc: Walker, Shaun (MNR); Turnbull, Brian (ENE)
Subject: update on MOE letter

Hi Stephanie and Mark,

I am writing to let you know that the MOE letter I have been working on, further to the topics we discussed on December 12, 2013, is still not finalized. I wanted to let you know that this means MOE will not be providing it to you until the New Year. I know that you had inquired about the timing of the letter when I first identified that MOE would be sending a replacement to our November 15 letter, so I wanted to provide a more recent update at this point.

I will be in touch in the New Year.

Thanks, Rosanna

Rosanna White
Environmental Planner/EA Coordinator
Technical Support, Northern Region
Ministry of Environment
199 Larch St, Suite 1201
Sudbury, Ontario, P3E 5P9
P: 705-564-7170 F: 705-564-4180

Ministry of Natural Resources

From: Tami Sugarman
Sent: March-02-10 9:29 AM
To: 'McDonald, Lauren (MNR)'
Cc: Walker, Shaun (MNR); Berube, Margaret (MNR); 'Robert J. Steele'; Kristi Beatty; 'ormg@nrtco.net'
Subject: RE: Xeneca Power Development - Larder and Blanche River Sites
Attachments: Larder Project Concept.pdf; Larder Inundation Mapping.pdf; Larder Inundation Air Photo.pdf

Importance: High

Hello Lauren, Shaun and Margaret

In preparation for our teleconference meeting this week on March 4 at 1:30pm, please find the preliminary information package containing an air photo, project concept layout and inundation map for the Larder and Raven site on the Larder River. Project concept and inundation maps for Blanche River site are not available this morning. I will forward them as soon as they become available.

We look forward to our discussion with your team.
Best regards,
Tami

From: McDonald, Lauren (MNR) [mailto:Lauren.McDonald@ontario.ca]
Sent: February 18, 2010 11:57 AM
To: Tami Sugarman
Cc: Walker, Shaun (MNR); Berube, Margaret (MNR)
Subject: RE: Xeneca Power Development - Larder and Blanche River Sites

Hi Tami,

Shaun, Margaret and I will be available to speak with you on the afternoon of Thursday, March 4th in regards to the required studies for the 2010 field season. Does a start time of 1:30 pm work for you?

While we see that this meeting will be valuable to allow Xeneca more time to plan for the 2010 field season, please keep in mind that this discussion will not meet the applicant's requirement to design a coordinated approach to meet all federal, provincial, municipal, environmental assessment and consultation requirements, as described in condition #1 in the letter informing Mr Gillette of his receiving Applicant of Record status (November 2009).

Regards,

Lauren McDonald
Management Biologist
Ontario Ministry of Natural Resources
Kirkland Lake/Claybelt Area
Kirkland Lake District
Tel. (705) 568-3241
Fax (705) 568-3200
email: lauren.mcdonald@ontario.ca

From: Tami Sugarman [mailto:tsugarman@oel-hydrosys.ca]
Sent: February 17, 2010 3:06 PM
To: McDonald, Lauren (MNR)
Cc: Berube, Margaret (MNR)
Subject: RE: Xeneca Power Development - Larder and Blanche River Sites

Hi Lauren

I am waiting for mapping material from Xeneca in order to have discussions around areas of impact; identification of issues, and available information and gap analysis in order to begin planning for required studies that may have to be undertaken in the important spring field season and beyond. Without this mapping I don't see how we can have a fruitful conversation therefore I do not want to book a time with you that I may have to turn around and cancel.

Therefore, your later date Wed (Feb 24) may work, however to be safe, the following week may be best. If you can let me know your availability that week (Mar 1) and March 8th that would be better.

For the week of March 1st our team is available on the following dates Monday AM, Wed PM and Thurs PM.
For the week of March 8th our team is available on the following date Tues all day, Wed all day, Thursday all day and Friday PM.

We should set aside a few hours for the teleconference.
Thanks for your patience.

Tami



Tami Sugarman, B.Sc., P.Geo. – Principal, Environmental Assessment and Approvals Coordinator
OEL-HydroSys Inc. – 3108 Carp Road - P.O. Box 430, Carp Ontario KOA 1L0
(T) (613) 839-1453 x229 (C) (613) 894-3509 (F) (613) 839-5376
tsugarman@oel-hydrosys.ca – www.wesa.ca

OEL-HydroSys, WESA Envir-Eau, WESA, WESA Technologies, members of WESA Group Inc.

NOTE: Si ce courriel ne vous est pas adressé, veuillez le supprimer immédiatement. La transmission non autorisée de ce courriel est interdite.



From: Robert J. Steele [mailto:steele@nrsi.on.ca]
Sent: February 17, 2010 12:39 PM
To: 'McDonald, Lauren (MNR)'
Cc: 'Berube, Margaret (MNR)'; Tami Sugarman
Subject: RE: Xeneca Power Development - Larder and Blanche River Sites

Lauren

Thanks for the heads up. Tami Sugarman, the EA planner representing Xeneca will be in touch to book the appointment. I have copied her on your e-mail.



Robert J. Steele, B.Sc.
Senior Aquatic Biologist
Natural Resource Solutions Inc.
225 Labrador Drive, Unit 1
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(f) 519.725.2575
(c) 519.577.1503
(e) steele@nrsi.on.ca
www.nrsi.on.ca

From: McDonald, Lauren (MNR) [<mailto:Lauren.McDonald@ontario.ca>]
Sent: February 17, 2010 11:58 AM
To: steele@nrsi.on.ca
Cc: Berube, Margaret (MNR)
Subject: RE: Xeneca Power Development - Larder and Blanche River Sites

Good morning,

I just wanted to let you know that my schedule is very quickly filling up for next week. I am now only available on Monday afternoon (Feb 22) and Wednesday morning (Feb 24). Please let me know if these times are available for you so I can schedule your appointment.

Regards,

Lauren McDonald

Management Biologist
Ontario Ministry of Natural Resources
Kirkland Lake/Claybelt Area
Kirkland Lake District
Tel. (705) 568-3241
Fax (705) 568-3200
email: lauren.mcdonald@ontario.ca

From: Walker, Shaun (MNR)
Sent: February 17, 2010 11:53 AM
To: McDonald, Lauren (MNR)
Subject: FW: Xeneca Power Development - Larder and Blanche River Sites

Shaun

From: Robert J. Steele [<mailto:steele@nrsi.on.ca>]
Sent: Tuesday, February 02, 2010 8:28 AM
To: Walker, Shaun (MNR)
Subject: RE: Xeneca Power Development - Larder and Blanche River Sites

Shaun

I will contact the EA planner, Tami Sugarman and either she or I will get back to you on this.



Robert J. Steele, B.Sc.
Senior Aquatic Biologist
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(c) 519.577.1503
(e) steele@nrsi.on.ca
www.nrsi.on.ca

From: Walker, Shaun (MNR) [<mailto:shaun.walker@ontario.ca>]
Sent: February 1, 2010 3:29 PM
To: steele@nrsi.on.ca
Subject: RE: Xeneca Power Development - Larder and Blanche River Sites

Hello Rob,

Further to our discussion re your upcoming 'road trip' our biologist was wondering if you had any idea what day (during the week of Feb 22nd) you might be swinging by Kirkland Lake? If you could let us know if/when you have this confirmed that would be greatly appreciated. Lauren can be reached at Lauren.McDonald@ontario.ca or 705-568-3241.

Thanks,

Shaun Walker

District Planner
Kirkland Lake District
Ministry of Natural Resources
(705) 568-3231

From: Robert J. Steele [<mailto:steele@nrsi.on.ca>]
Sent: Thursday, January 28, 2010 10:43 AM
To: Moro, Eleanor (MNR)
Cc: chaun.walkerr@ontario.ca
Subject: Xeneca Power Development - Larder and Blanche River Sites

Good Morning Eleanor

My name is Robert Steele and I am a consultant representing Xeneca Power Development. I attempted to reach you by phone a few minutes ago and was told that you were away until February 1st. I am following up on the letter sent to you by Xeneca Power, date January 22, 2010. Xeneca is awaiting a decision on the FIT contract for the two above noted projects. In the meantime, they have asked me to make initial contact with your staff to introduce the project concepts and discuss the issues which may be prevalent in your minds. I would like an opportunity to drop in, with our EA planner in the next little while and meet briefly with your planner and biologist.

I have copied Chaun Walker on this e-mail.

If either you or Chaun could call me at the numbers indicated below, it would be very much appreciated.

Regards, Rob Steele



Robert J. Steele, B.Sc.
Senior Aquatic Biologist
Natural Resource Solutions Inc.
225 Labrador Drive, Unit 1
Waterloo, ON, N2K 4M8
(p) 519.725.2227
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(e) steele@nrsi.on.ca
www.nrsi.on.ca

ONTARIO RESOURCE MANAGEMENT GROUP INC.

P. O. BOX 1234
PEMBROKE, ONTARIO
K8A 6Y6
Tel. (613) 638-0283
Fax. (613) 638-0283



Memo

To: Sean Walker – District Planner

From: Kristi Beatty, Ontario Resource Management Group, Inc. (ORMG)

Date: 15 March 2010

Re: Background Information – Larder and Blanche Rivers

Ontario Resource Management Group Inc. (ORMG) has been retained by Xeneca Power Development Inc. (Xeneca) to conduct biological surveys in preparation for proposed hydroelectric developments on the Larder and Blanche Rivers, as previously discussed.

Two maps are attached, depicting the boundaries of the study area at the each site. We are seeking information for the proposed construction area plus an additional 1 km surrounding the project site.

We would like to request any information on the natural resources in the study area, such as the following:

- Fisheries assessments
- Fish collection records and rare species
- Drain classifications
- Wetland evaluations
- Areas of Natural and Scientific Interest
- Provincially Significant Wetlands
- Environmentally Sensitive Areas
- VTE species, significant wildlife habitats (i.e. raptor nesting, colonial species nests, deer yards and feeding areas)
- Any species lists relating to animals and vegetation
- Vegetation mapping, floristic inventories (FEC, FRI, etc.)

ORMG Inc. will be commencing field work in April of 2010, and we would be available to meet with you to pick up any material and discuss this project just prior to our spring fieldwork. Please call if you have any questions or comments.

Best regards,

Kristi Beatty

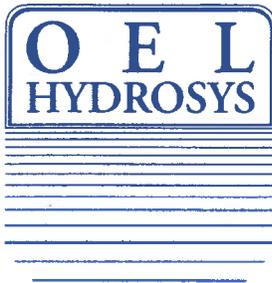
Lead Biologist

Ontario Resource Management Group Inc.

P (613) 638-0283

C (613) 639-8585

kbeatty@vianet.ca



Mr. Shaun Walker, District Planner
Ministry of Natural Resources
Box 910, 10 Government Road East,
Kirkland Lake, Ontario, P2N 3K4

**Re: Early Notification of Proposed Waterpower Projects – Larder and Blanche Rivers
Xeneca Power Development Inc.**

Dear Mr. Walker:

This letter is to advise you that the proponent, Xeneca Power Development Inc. (Xeneca), has plans for the development of two new hydroelectric generating stations on the Larder River and Blanche River (please see attached mapping). The developments will be following the OWA Class Environmental Assessment for Waterpower Projects and is currently in the project description and coordination phase of the planning process.

We may or may not have had the opportunity to speak with you directly regarding the proposed project(s), however, if we have had the opportunity for your team to provide some perspective on our intended work your involvement to date was very much appreciated.

We realize that this project is in its' early stages, however, if Xeneca is awarded a Feed-in-Tariff contract for proposed site(s) on the Larder and Blanche Rivers, we intend to begin a series of assessments in early spring in order to address season-sensitive potential natural environment issues associated with this projects. To that end, we would like to take this opportunity to request the following from your office;

1. Background natural heritage information you may be able to provide on the project area(s).

The details of the information we require are attached to this letter along with the scientific collector's permit application.

As Xeneca moves forward with the sites that are awarded FIT contracts we look forward to meeting with you as soon as possible to plan these projects in an environmentally responsible and efficient manner. Please do not hesitate to contact the undersigned if you have any questions.

Yours Truly,

A handwritten signature in blue ink, appearing to read 'Tami J. Sugarman', is written over a horizontal blue line.

Tami J. Sugarman
Approvals Coordinator
OEL-HydroSys Inc.

From: Gordon, Rick (MNR) <rick.gordon@ontario.ca>
Sent: September-23-11 11:50 AM
To: Karen Fortin; Tami Sugarman
Cc: Walker, Shaun (MNR); Ormsby, Kathleen (MNR); Moro, Eleanor (MNR)
Subject: KLK District Comments Presented During the September 14, 2011 EA Coordination Meeting for Blanche River in Marter Twp. Site
Attachments: Comments for Xeneca Marter Site Sept 14 Coordination Meeting.doc; EA Scoping meeting Marter site.doc; Hydrologic Regime Assessment Table.doc

Good morning Karen

I have two attachments for your consideration during creation of the Sept 14, 2011 EA coordination meeting minutes. The first (Comments for Xeneca Marter Site Sept 14 Coordination Meeting.doc) contains the MNR's EA coordination presentation comments with a few tweaks for site specific info (i.e. biological, ESA, etc.). The second (EA Scoping meeting Marter Site.doc) contains some site specific comments that I spoke about during the meeting.

Also attached is an electronic version of the Hydrologic Regime Assessment Table that was discussed during the meeting.

Please note that MNR's comments for the Blanche River Project Description in Marter Twp. will be provided early next week.

Have a great weekend.

Best regards,

Rick Gordon

A/District Planner
Kirkland Lake District
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Comments for Xeneca Marter Site Coordination Meeting

Sept 14, 2011

Site Release and Site Description Package:

Although the application for the site was accepted by MNR, classification of the project under the site release procedure has been held until Xeneca determines whether they can obtain land owner agreements for the site. Obtaining the land owner agreements would of course change the project classification from non-competitive to Direct which would in turn dictate the level of consultation and business relationship with local FN communities. I don't believe that Xeneca wishes to begin business to business negotiations with FN communities only to later advise the FN communities that due to a classification amendment they no longer can expect that kind of relationship. It would send the wrong message to the FN and potentially create poor future consultation relations for both Xeneca and MNR. As a result of MNR's willingness to grant Xeneca latitude in obtaining their land owner agreements, MNR will not be able to provide either the Site Description Package or Applicant of Record Status until such time as Xeneca can produce registered documentation of the land owner agreements.

Stakeholders:

Although the project site is geographically located within the Twp of Marter, the Twp. of Chamberlain annexed all lands west of the Blanche River in Marter Twp. Therefore Municipality of Charlton/Dack is required to be notified and comments sought for Municipal policy/bylaw procedures. The Twp. of Marter does not have municipal governance although I believe it does have a local roads board.

Cumulative Effects:

The proposed facility operation mimics nearby Misema GS operations; this creates a scenario with high potential to impact downstream species at risk and ecological function due to cumulative impacts of both generating stations. As proposed operations must not impact existing facilities, Xeneca may be required to modify operations plans to mitigate the cumulative impacts. This may mean that both operations will not be able to recharge their basins simultaneously, and potentially creates a situation in which Xeneca has to operate outside of economically optimal timelines.

Class EA for Waterpower Scoping Meeting Messages

It is expected that a proponent of a Greenfield waterpower project will collect and assess information through preparation of their Environmental Report that will meet the needs for MNR's subsequent review and approval of the project under our applicable legislation.

Proponents of waterpower projects may need to address multiple environmental assessments, approvals, and permits, many of which have similar information requirements.

Data and information collection can be designed and carried out in a coordinated manner within the EA process and that the findings can be presented in a single body of documentation that supports decision-making under relevant legislation.

Data and information collection should be designed to meet the needs regulatory requirements for other agencies where MNR and the agencies have a common interest e.g. DFO's fish habitat and MOE's permit to take water (PTTW).

Proponents and agencies relevant to the review and approval process should be encouraged to engage in early and ongoing communication, and to create task teams for project components as required, to discuss:

- required approvals;
- information requirements;
- available information;
- potential issues and concerns;
- consultation requirements, particularly with Aboriginal communities; and
- project management responsibilities.

MNR will work with the proponent to assist in the design of a process that addresses all information needs and Aboriginal consultation requirements in a single, efficient, and coordinated process.

- agency mandates and how the proposed project relates to the statutes and policies administered by each agency;
- identification of a comprehensive list of approvals required;
- design of a coordinated process that meets the requirements of the federal and provincial environmental assessments, the LRIA Section 14 and 23.1 approvals, PTTW approval and all other approvals that can be addressed in parallel;
- identification of a comprehensive list of environmental and social objectives and values to be considered;
- identification of industry constraints e.g. procurement timelines;
- design of an efficient and coordinated program for data and information collection;
- preliminary design of field sampling protocols and a single pre-construction monitoring plan that satisfies the requirements of the ESP, CEAA, and WMP (MNR's focus will be on the influence of flow/level management from a WMP perspective);
- design of a Consultation Plan that outlines an appropriate strategy and program for public and First Nation consultation that satisfies all requirements for all

- approvals and permits being addressed through the ESP (see additional notes below); and
- identification of expected timelines and tasks associated with each stage of the process, (e.g., public consultation, report preparation, government review, etc.), clearly outlining the roles and responsibilities in the proponent-led EA process.

District staff will share any available data and information with the proponent of a waterpower project. This may include, where available, but is not limited to:

- characterization of the natural variability of water flow and level parameters;
- acceptable methods for determining in stream flows;
- identification of fisheries management objectives;
- water quality data;
- any known habitat that depends on water flows and levels;
- other upstream and downstream interests;
- fish and benthic communities;
- riparian communities; and
- soils information.

It is the proponent's responsibility, as part of the ESP process, to design and implement an appropriate consultation program for the project. It is in their best interest to coordinate consultation with MNR and other agencies to provide for adequate public consultation throughout the ESP and to ensure that MNR will be in a position to issue required approvals and permits.

If the proponent fails to carry out adequate public consultation or to address public/aboriginal issues or concerns, it may result in requests to elevate the project or delays in obtaining approvals.

MNR District staff will share with the proponent any known relevant information regarding the Aboriginal communities who may have an interest in the area being developed, and share the specified elements, principles and processes for Crown consultation with affected Aboriginal communities, as appropriate.

The proponent is encouraged to develop an aboriginal consultation plan in consultation with all of the agencies and affected communities.

EA Requirements for Dispositions of Crown Resources

The Waterpower Development Timelines as established by the Ontario Waterpower Association under the Class EA for Waterpower Projects provides a target timeframe of up to 70 months from site release to project completion and commissioning. The EA component of this time line provides the longest time frame for completion at up to 24 months. This is such that necessary data collection can be conducted in order to obtain the necessary approvals to proceed with the project.

The disposition of rights to Crown resources is subject to screening under MNR's Class Environmental Assessment for Resource Stewardship and Facility Development Projects (Class EA-RSFD).

For proposed projects that require *EA Act* approval under the Waterpower Class EA, dispositions of Crown resources associated with the project will not be subject to screening under the Class EA-RSFD

However, MNR will not proceed with the disposition unless the applicant provides evidence that they have complied with their *EA Act* requirements. MNR will participate in the EA process to ensure that ministry interests are considered.

MNR retains decision-making and approval authority for all dispositions regardless of a project's authorization under the *EA Act*.

There has been recent discussions regarding the requirement for RSFD EA screening of resources for transmission <115kv. I'm awaiting written verification of RSFD EA screening requirements so I will defer my comments at this time until the documentation is received.

Location Approval Information

Preliminary drawings and diagrams of the dam (type, size, location)

This includes preliminary drawings in plan, profile and cross-section showing the proposed location, type, size of the dam including discharge facilities

Proposed dam operation; water levels and flows. Information to describe the proposed annual dam operation plan for unusual high and low flows, extreme flows and normal flow conditions including a preliminary annual dam operation rule curve. This includes a description of how the normal flows meet the purpose of the LRIA act by allowing for the management perpetuation and use of the fish, wildlife and other natural resources dependent on the lakes and rivers. This includes the powerhouse and by-pass reach.

Legal Instruments and Right to Flood

A proposed dam site or changes to an existing dam site, and permanent or periodic flooding of the reservoir area, must be located: entirely on lands owned by the applicant and/or on lands which the applicant has obtained legal authority from the owner to construct the dam and cause flooding. If a dam site and/or flooded area are to be located on or near public land, authorization must be obtained from the MNR under the Public Lands Act.

A determination of an applicant's right to flood will be based on:

- Dam site location and areas to be flooded
- Permanently controlled water levels and periodically flooded areas in the reservoir up to the top crest of the dam or Inflow Design Flood level
- Impact of proposed dam operations on riparian interests

Statement of authorization from affected riparian owners

Where temporary or permanent flooding of land will occur, or riparian rights will be negatively impacted, a formal land tenure document, consent or release from the affected owners must be obtained. For LRIA purposes, this consent could take the form of a letter signed by the applicant and the landowner(s) that stipulates the following:

1. the landowner has been informed of the nature of the proposal and its impacts;

2. the landowner understands how the current conditions affect their property (specify);
3. the landowner understands that the proposed works will result in a change to current conditions (specify); and
4. the landowner has no objection(s) to the proposed work and hereby provides their consent to the application

Watershed maps, Official Plans – existing and future (20 yr) land use

Watershed maps and official plans showing both present and anticipated land use over a time horizon of 20 years or as depicted on Official Plans.

Hydrological Information:

Sufficient Hydrological data must be provided in order to determine the effects that the operations of the facility might have on upstream and downstream water quality, fisheries, recreationalists and land owners. In order to evaluate these effects water management plans and hydrological data must be collected and determined for future operations. This will require hourly flow data during expected high and low water flow periods. The proponent is required to show what the accumulated effects of the Misema and proposed generating stations would have on the current fisheries including SAR. Data must be provided that shows the effects of both operations operating simultaneous peaking facilities. An Hydrological Assessment Table will be provided per discussions held at the April 28th Sudbury meeting to assist in part, with this data collection/evaluation.

Ecological information (aquatic and terrestrial)

MNR will review LRIA applications associated with dams to ensure applicants provide for aquatic ecosystem-based water level and flow objectives that will support the ecological sustainability and biodiversity of aquatic systems for the perpetuation of fish and wildlife within the zone of influence created by the dam.

Ecological information required as part of location approval includes:

- Aquatic ecosystem flows and levels required to support ecological sustainability and biodiversity and provide for the perpetuation of fish and wildlife and other natural resources dependent on the water course
- Existence or maintenance for fish passage, as per DFO-MNR protocol (2009)
- Protection of riparian wildlife habitat and existing wildlife movement corridors
- Assessment of species of special concern, extirpated, threatened or endangered
- Assessment of Natural Heritage Areas
- Assessment of the Natural Hydrologic Regime
- Assessment of the Sediment Regime
- Assessment of the Thermal Regime
- Assessment of the Chemical Regime
- Assessment of Biological Characteristics

Clearing areas to be flooded

Identify clearing operations of proposed permanently flooded areas to address salvaging marketable resources (e.g. timber) and water quality concerns including the possible removal of high concentrations of organic materials. For instances where trees need to be removed from inundated areas and the tree's neither belong to the Crown with sustainable forest licence right of first refusal, the trees may be owned by the land owner

and arrangements will need to be made with the land owner and forest operator at the expense of the proponent.

Proposed erosion and sediment control measures (construction and operation)

Identify proposed measures to control erosion and sediment during construction and operation of the dam as well as monitoring plan.

Natural amenities present at the site

Natural amenities are areas of streams, rivers, and lakes that can be used and enjoyed by the public and riparian owners and include beaches, vegetation, trees, unique physical features, scenic areas, areas for swimming, areas for canoeing and boating, and areas for fishing. The natural amenities may be a feature of the water, the bed, or the shores and the banks. Natural amenities on shores of lakes and rivers should not be destroyed or altered without a full evaluation of the trade-offs involved with evaluation of options for mitigation.

Historical and Archeological Sites

The proposed location for the dam and flooded area should be checked to determine if historical sites or archeological sites might be destroyed or flooded. If such sites may be located at the dam site or in the area to be flooded, the appropriate authority (Ministry of Culture and Heritage) should be advised of the proposal by the applicant and direction requested early on in the approval procedure.

Hazard Potential Classification (HPC)

A Preliminary Hazard Potential Classification involves a qualitative assessment of the relative factors, such as historical flooding, existing floodplain mapping, downstream development, recreational activities, channel topography and hydraulics, failure characteristics of the dam and reservoir, discharge facilities, and watershed features. Through assessment of these factors, the preliminary HPC can be assigned for flood and normal (sunny day) dam failures or improper-operation if the incremental losses are obvious

Lakes and Rivers Improvement Act (LRIA) Approvals for Waterpower Projects

Information required for approvals under the LRIA can largely be met through the Class EA for Waterpower Projects.

The purpose of the Lakes and Rivers Improvement Act (LRIA) is to provide for the management, protection, preservation and use of the waters in Ontario and the land under them, as well as the fish, wildlife and other natural resources dependent on the lakes and rivers. The LRIA also provides for the protection of public rights, the interests of riparian owners, the natural amenities of the lakes and rivers and their respective shores and banks. The LRIA protects persons and property by ensuring that dams are suitably located, constructed, operated and maintained and are of appropriate nature in regards to clauses (a) to (e) of the LRIA. The LRIA applies to both private and Crown Land.

MNR's Statement of Environmental Values (SEV) is required under the Environmental Bill of Rights (EBR) and provides the designated ministry a record of their commitment to

the environment and to become accountable for ensuring consideration of the environment in their decisions.

Waterpower projects are subject to a two-part review and approvals process. The first part is the Location Approval, issued under the LRIA for a new dam site.

It should be noted that the Ministry can not issue Location Approval until approvals have been received from the other ministries and Agencies, as discussed below.

Once a project receives Location Approval, the second part is the review and approval of the Plans and Specifications for the design, construction, operation, and maintenance of the waterpower facility. No construction on the project may commence until the plans and specifications approval has been granted by the Ministry.

Any applicant that is seeking approval under the LRIA is required to begin the process by completing and submitting a Multi-use Application Form (Parts 1 Work Permit and Part 5) to the Ministry. This application will determine if the LRIA applies to the proposed project and the form becomes a component of the project summary.

All waterpower projects that involve the construction of a dam or modification to an existing dam require approval under Section 14 or 16, respectively, as well as Section 23.1 of the LRIA (O. Reg. 454/96 sets out the projects that require approval under Sections 14 and 16). The requirements for approvals under the LRIA are described in detail in the LRIA Guidelines and Criteria for Approvals under the LRIA (1977).

In addition, the required information in the application form is confirmed to be complete and includes identifying the applicant as being a designated legal entity (licensed company) as represented by the contact person.

In situations where an endangered, threatened or at risk species is present and may be impacted, and it is determined that an instrument is required under the Endangered Species Act (2007), Location Approval cannot be given until ESA 17.2(c) permit(s) for construction have been approved and/or a draft ESA waterpower agreement for the operation of the project has been accepted.

The location approval issued by the Area Supervisor may be subject to such changes or condition as are appropriate and includes a date for submission of the Plans and Specifications for Approval, (Location Approval expiry date provision per subsection 14(8) of the LRIA). The Location Approval will be in a form of a letter and will also identify the information requirements and or conditions that need to be addressed and incorporated into the plans and specifications submission for approval. The applicant will be advised that construction cannot begin until the plans and specifications approval has been granted by MNR. The letter will also advise that a time limit is invoked, either a sunset or expiry provision, per LRIA section 14 (8). The conditions listed in the location approval needs to be addressed and incorporated into the plans and specifications submission for approval.

Water Management Plans

It is expected that a proponent of a Greenfield waterpower project will meet the intent of water management planning through preparation of their Environmental Report.

As such MNR will not require that a separate, sequential water management planning process be undertaken for these projects in a manner and steps specified in the Water Management Planning Guidelines for Waterpower (MNR 2002).

For new projects located within the area of an existing WMP, the proponent's Environment Review and MNR's review and approval will consider effects on other facilities and interests. In these instances, an administrative amendment will be used to codify any changes to the existing WMP.

More detailed guidance is currently being developed.

It is recommended at this time, that proponents identify on all public notices, where the project requires an amendment to a plan.

Existing Water Management Plan

Where the zone of influence of a project is proposed to be located within an existing Water Management Plan for Waterpower (WMP), MNR is required to advise the proponent of its existence. Upon request, the Ministry will provide a hard copy or electronic copy of the existing WMP to the applicant.

The proposed dam operation plan required for Section 14 or 16 approvals must be consistent with the objectives of an existing WMP or the applicant must obtain authorization to alter the existing WMP through a plan amendment.

Direction from/consultation with other regulatory agencies (e.g. DFO, TC, MOE)

There are several instances where MNR may be unable to issue location approval until input has been received from the other agencies.

1. The Department of Fisheries and Oceans is responsible for providing a letter of advice or authorization when work may result in non compliance with the Federal Fisheries Act. This may include, but not limited to, obstructions to fish passage, the entrainment of fish, the harmful alteration, disruption or destruction of fish habitat, the deposition of deleterious substances, flows for fish spawning or the destruction of fish, as outlined in Section 20, 22, 30, 32, 35 and 36 of the Fisheries Act. The DFO needs to provide a letter of advice or authorization in accordance with the Federal Fisheries Act before approval can be issued by MNR. Developers should also be aware that the need to authorize the harmful alteration, disruption or destruction of fish habitat triggers an assessment process under the Canadian Environmental Assessment Act.
2. DFO requires the consideration of any potential impact on a listed species (extirpates, endangered, threatened and/or special concern species), their residences and critical habitats before issuing authorizations under the Species At Risk Act (SARA), except in National Parks, National Historic Sites and other protected heritage areas which then becomes the responsibility of the Ministry of the Environment. The review of any proposed project must consider the protection of SAR and ensure compliance of the prohibitions of SARA as outlined in Sections 32, 33 and 58 of the Act. Projects that require an authorization are referred to DFO following the normal referral review process.

3. Where the works are to be located on navigable waters, no approval can be issued by the Ministry of Natural Resources until Transport Canada has provided a written Letter of Approval under the Navigable Waters Protection Act

From: Gordon, Rick (MNR) <rick.gordon@ontario.ca>
Sent: October-04-11 1:42 PM
To: Vanesa Enskaitis; Ed Laratta; Mark Holmes; Tami Sugarman; Kai Markvorsen; Karen Fortin; Dean Assinewe
Cc: McDonald, Lauren (MNR); Walker, Shaun (MNR); Khan, Mohammad Sajjad(ENE); Cragg, Ivan (MNR); Cormier, Bertha (MNR); Ormsby, Kathleen (MNR); Moro, Eleanor (MNR); Dosser, Sandra (MNR); Schryburt, Rob (MNR); Pyrce, Rich (MNR); Maciaszek, Eva (ENE); Eggers, Kelly; Kentish, Lianne (ENE)
Subject: MNR Project Description Review of the Waterpower Development Project on the Blanche River in Marter Twp.
Attachments: BlancheRiver_MarterTwp_Project_Description_MNR_Comments_Oct04_2011.xls

Good day Folks

MNR has reviewed the Project Description for the Blanche River waterpower development project in Marter Twp. A comment spreadsheet was populated by reviewers of the project description. The comments have been provided in order to help Xeneca continue revisions and evolve the project in order to meet the EA requirements.

If you have any questions please call or email and I will be happy to respond.

Best regards,

Rick Gordon

A/District Planner
Kirkland Lake District
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Larder/Raven Hydro Electric Project Description Comment Sheet - DRAFT

Commenter	Page	Comment
RG	5	<p>Section 1.1.2 - Although the application for the site was accepted by MNR, classification of the project under the site release procedure has been held until Xeneca determines whether they can obtain land owner agreements for the site. Obtaining the land owner agreements would of course change the project classification from non-competitive to Direct which would in turn dictate the level of consultation and business relationship with local FN communities. Xeneca should carefully consider entering into business to business discussions with FN communities prior to the project classification. Any changes to level of discussions with FN may lead to negative reactions and mistrust.</p> <p>As a result of MNR's willingness to grant Xeneca latitude in obtaining their land owner agreements, MNR will not be able to provide either the complete Site Description Package or Applicant of Record Status until such time as Xeneca can produce registered documentation of the land owner agreements. Upon request we can provide a modified Site Description package without Final FN comments until classification of the project has been resolved.</p>
RG	5	<p>Section 1.1.2 - Although the project site is geographically located within Marter Township, the municipality known as the Township of Chamberlain includes most lands west of the Blanche River in Marter Twp. Xeneca must notify the Municipality of the Township of Chamberlain and seek comments on Municipal policy/bylaw procedures. The Marter Township does not have municipal governance. It has a local roads board that should be contacted.</p>
RG	7	<p>Section 1.1.5 - The project description must be distributed to the Municipality of the Township of Chamberlain. Marter Twp. does not have a municipal government although it does have a local roads board that should be contacted.</p>
RG	9	<p>Table 1.1 - Same comment as above.</p>
RG	11	<p>Section 1.3/1.4 - Please be advised that landowner authorization will be required for road, hydro corridor, facility infrastructure and any other impacts that are anticipated upon privately held lands.</p>
RG	13	<p>Section 2.1.1 - No description is provided for the actual dam structures discussed in options 1 & 2 (i.e. height/length of proposed dams). Please update the project description; this information will be required during PLA and LRIA approvals.</p>
RG	13	<p>Section 2.1.1 - Proposed design may also be subject to riparian owner agreements.</p>
RG	14	<p>Section 2.1.4 - Access is subject to land owner agreement.</p>
RG	15	<p>Section 2.1.8 - Transmission corridor is subject to land owner agreement and may be subject to some MNR RSFD-EA processes.</p>
RG	15	<p>Section 2.2.2 - Facility operation mimics Misema GS operations; dependent on accumulated effects of both operations on downstream fisheries and species at risk there may be a requirement for Xeneca modify operations to ensure accumulated effects are mitigated.</p>
RG	17	<p>Section 2.2.3 - The water management plan that would have to be taken into consideration is not associated with Kagawong Power Incorporated but the Misema Generating Station. Please update the project description and note the company name for future discussion when determining the accumulated effects, monitoring and mitigation measures.</p>

Larder/Raven Hydro Electric Project Description Comment Sheet - DRAFT

Commenter	Page	Comment
RG	18	Section 2.4.3 - Grey water/waste water will need to be handled per Health Unit direction.
RG	20	Table 3.2 - Only 2 months are shown where mean monthly flows exceed the design turbine flow of 16 cubic meters / second, suggesting that peaking operation of the facility will be the norm more so than run of river.
RG	21	Section 3.2.2 - What is being done to determine the potential impacts of accumulated effects of the proposed facility and the existing Misema GS facility on downstream fisheries and Sturgeon.
RG	23	Recreation/Tourism Section - The MNR does <u>not</u> have a dam located upstream of the proposed Blanche River location. Please identify the intended dam location and we will work with you in determining any required actions.
RG	24	Section 4.1 - Need to determine minimum flow requirements for fisheries and Sturgeon in order to receive PLA and LRIA approvals.
RG	28	Section 5.1 - Because of accumulative effects of Misema and proposed facility operations the MNR maintains that the zone of influence carries downstream past the confluence of the Blanche and Misema Rivers to the next large confluence and potentially to Lake Temiskaming.
RG	30	Table 5.1. Section Water Quality/Quantity - Also need to consider accumulative effects on downstream which could be high negative unless mitigated.
RG	31	Table 5.1 Section Water Quality/Quantity - What about post construction monitoring and potential mitigation. Please identify your post construction monitoring and mitigation plans; this will be required for PLA and LRIA approvals.
RG	32	Table 5.1 Section Wetland Dependant Species - Contradictory statements... unknown, however field investigations have been conducted... then effects should be known. Please identify the expected effects based on field investigation.
RG	35	Table 5.1 Riparian Rights - inundation areas must be determined and agreements with land owners reached. Include potential impacts from erosion upstream and downstream.
LM	9	The Blanche River is considered to be an unmanaged waterway. Please update the project description and ensure the EA requirements are followed.
LM	13	Section 2.1.2 - design turbine flow is still 16.0cms; previous reports (Proposed Operating Flows and Levels) suggest that this is only viable if the facility peaks throughout the majority of the year (only ROR during spring frechette, and occasionally during fall frechette) - in Summer and Winter especially, the flow requirements for the turbine to function efficiently (10.4cms) isn't even achieved at a Q20 level. At Q50 levels, summer, fall and winter all fall WELL below desired cms. Large implications for downstream and upstream biota. Will need to see daily and monthly flow charts indicating flow changes and rates of change.
LM	16	No compensatory flow: must identify how this will affect the spawning area at the base of the chutes in Environmental Report
LM	16	Slope stability - what about the large clay/sand/gravel slope at the base of the chutes, into which the tailrace is directed? Potential for impacts to sturgeon downstream. Must identify impacts of increased sediment loading and/or provide mitigation prior to Location Approval.
LM	16	Spring operation: dates associated with this the same as in the Proposed Operating Flows and Levels document (April 1 - June 15)? If so it is not sufficient for either walleye or lake sturgeon.

Larder/Raven Hydro Electric Project Description Comment Sheet - DRAFT

Commenter	Page	Comment
LM	16	Summer and Fall: possible intermittent operation - daily and monthly flow curves will be required.
LM	17	2.3.1 - baseline monitoring is incomplete for first option - will require field studies etc in 2012 at minimum; timelines seem too short to accomplish this.
LM	17	2.4.1 - should water taking have impact on SAR an ESA permit will be required
LM	26	Terrestrial Assessment - was the area of inundation also assessed for terrestrial species? If not, further baseline surveys are required.
LM	27	Life Stage Oriented Assessment: Were night-time light assessments used in the Blanche? Due to turbidity in the Blanche River, light assessments on the river are inadequate to identify presence of walleye, especially during spring spawning times. Additional means of identifying species presence must be used.
LM	28	5.1 - states 1.2km penstock - typo?
LM	28	5.1 - anticipated ZOI is only 2km - how will changes to flows be attenuated by the time they reach the Misema, esp. as the Misema is a managed river? Cumulative impacts of combined Misema and Blanche River Generating Stations will likely impact a significant stretch of river downstream of the confluence between the Misema and Blanche Rivers. This will have immense implications for fish and wildlife downstream, including negative impacts to sturgeon. Must show modelling indicating how the ZOI was arrived at using current available science.
LM	30-38	Table needs to be revised with appropriate study information. Without this information, and information regarding planned mitigation for all identified impacts, impact of overall project cannot be assessed nor can it be categorized.
IC	Table 1.2	outlines that PLA - Licence of Occupation required. Other PLA requirements will include Work Permits, Easements, Water Power Lease Agreement, possibly Land Use Permit/s
IC	pg 17 section 2.2.3	incorrect statement re Blanche River and "Kapawong Power"
IC	Criteria - pg 35	"Land and Resource Use considerations - statement "Riparian rights or privileges" - "effects to riparian resource users not known. Consultation with stakeholders will determine appropriate mitigation". Comment - the project proposal as illustrated indicates that private lands will be affected by this proposal - access to site, hydro line, flooding, and all/most of the facility will be situated on private lands. MNR does not have the authority to approve the indicated works on private lands. In order to further consider this project for the affected Crown lands, the proponent will be required to produce legal authority from private landowner/s for works or impacts to the private lands resulting from this project.
IC	Criteria - pg 36	"An existing WMP - An amendment to existing WMP will be prepared prior to operation" Comment - will this tie into the Misema WMP?
IC	Plates illustrating project	The plates do not identify the delineation between Crown and Private lands (at the proposed facility or the potential flooded areas). Records reviewed indicate that there are no Crown shore reserves along the river (private lands are owned to the current waters edge).
BC	7	Reference made to Beaverhouse First Nation - should refer to them as an Aboriginal Community (as they are not a recognized status FN with INAC)
BC	7	Should include Wahgoshig FN and Timiskaming FN

Larder/Raven Hydro Electric Project Description Comment Sheet - DRAFT

Commenter	Page	Comment
BC	9	Reference again to Beaverhouse FN - should refer to them as an Aboriginal Community (as they are not a recognized status FN with INAC). Should include Timiskaming FN?
BC	23	Proximity to Aboriginal Reserves & Traditional territories - This site does not fall just within MFN's traditional territory but also Beaverhouse Aboriginal Community's area of interest and Timiskaming FN's asserted traditional territory and Wahgoshig FN's asserted traditional territory and an identified MNO harvesting territory
BC	24	Proximity to Important or designated environmental or cultural sites - this waterway is an identified value for one of the local FN's.

BC - Bertha Cormier, Resource Liasion Officer
 IC - Ivan Cragg, Lands & Waters Technical Specialist
 LM - Lauren McDonald, Area Biologist
 RG - Rick Gordon, A/District Planner

Last revision Sept 20, 2011

Ministry of Natural Resources
P.O. Box 910
10 Government Road East
Kirkland Lake, ON P2N 3K4
Tel.: (705) 568-3222
Fax: (705) 568-3200

October 26, 2011

Nava Pokharel, M.Sc., P.Eng.
Xeneca Power Development Inc.
5160 Yonge St., Suite 520
Toronto, ON M2N 6L9

Dear: Mr. Pokharel

Subject: Proposed Fall 2011 Field program for Bathymetry Work for the Larder and Blanche Rivers.

This letter is in response to your email that was received on October 18, 2011 regarding the above.

Thank you for providing your work plan for the Blanche and Larder waterpower development projects. Our review of the proposed work plan has found that the proposed data collection does not represent the expected zone of influence for both of the proposed projects. This data is being collected for both the environmental reporting process and the *Lakes and Rivers Improvement Act* approval process. District staff, on a number of occasions, have advised that the likely zone of influence for the proposed project on the Larder River will have impacts to Wendigo Lake and beyond; as well, the proposed project on the Blanche River will have impacts that may be found to Lake Timiskaming.

The data collected for the above noted projects will be used in determining the likely impacts on these water systems; if the collected data is found to be insufficient or inconclusive then considerable project delays will ensue while the required data is collected. District staff have been adamant about the collection of the data within the expected Zone of Influence areas to ensure that your company has adequate time to collect and process the required data. The approvals and permitting process can be completed in a timely fashion only if the appropriate data is supplied by your company. If your company chooses to not collect the required data within the expected zone of influence areas it will be required to do so before permits and approvals are issued. Authorization will then be delayed by whatever time is necessary for the company to collect said information.

We find that the scope of your investigation for both the Larder and Blanche River systems to be limited. In addition to flows and levels information, cumulative effects of your proposed operations on the Blanche and Larder Rivers must be considered with respect to existing and other proposed facilities on those river systems. The data that is collected must prove the expected environmental impacts that will occur both upstream and downstream of the proposed facilities. If negative impacts are found to occur from cumulative effects then mitigation measures must be implemented to offset the expected effects. If the cumulative effects cannot be mitigated, then operational constraints will be imposed and/or approvals will not be issued.

In order for District staff to fully review results from your data collection program for the proposed waterpower development facilities the following data collection sites are being identified as important sites. Please see Table 1 (below) and maps in Appendix 1.

Table 1	
Blanche River Project	
Location Description	Reasoning
Base of Krugerdorf Chutes	Potential spawning site, also unsure if area will be bypassed by tailrace.
Outflow of Krugerdorf Chutes plunge pool	Shallow riffle area that likely has high invertebrate productivity
Base of Stuart's Rapids	Known SAR spawning site, MNR strongly believes that impacts from operations of Blanche River Project in Marter Twp will be felt at Stuart's Rapids, potentially impacting spawning
Outflow of Stuart's Rapids plunge pool	Shallow riffle area that likely has high invertebrate productivity and may act as a juvenile sturgeon nursery area (juveniles have been confirmed at site)
James' Rapids	Known spawning site for walleye, potential spawning site for sturgeon. Potential for project to have impacts at this site.
Larder/Raven Project	
Location Description	Reasoning
Downstream of Corset Lake Weir	Believed to provide majority of flow to Larder River Chain found downstream
Downstream of Ward Lake Weir	Potential for this section of river to lose all flow during low flow periods caused by operations. High potential spawning site.
Location TBD between Ward Lake and Skeletonpup Lake	Potential for riverine sections of Larder Chain to dry up, causing periodic habitat fragmentation and loss of aquatic habitat
Larder River, between Skeletonpup and Wendigo Lakes	Strong evidence suggesting that flows from existing Larder Lake Dam affect Wendigo Lake levels; potential for this area to lose a significant amount of habitat during low flow periods
Base of Court Rapids	Known walleye spawning site, potential sturgeon spawning site. Potential for operations at Larder to impact water levels and habitat at this location
Base of Garnet's Rapids	Known sturgeon and walleye spawning site. Potential for operations to impact water levels and habitat at this site
James' Rapids	Known spawning site for walleye, potential spawning site for sturgeon. Potential for project to have impacts at this site.

Page 3
Xeneca Fall Field Program
October 26, 2011

For discussion regarding the above you may contact Rick Gordon at (705) 568-3213 at the Kirkland Lake District Office.

Sincerely,

Eleanor Moro

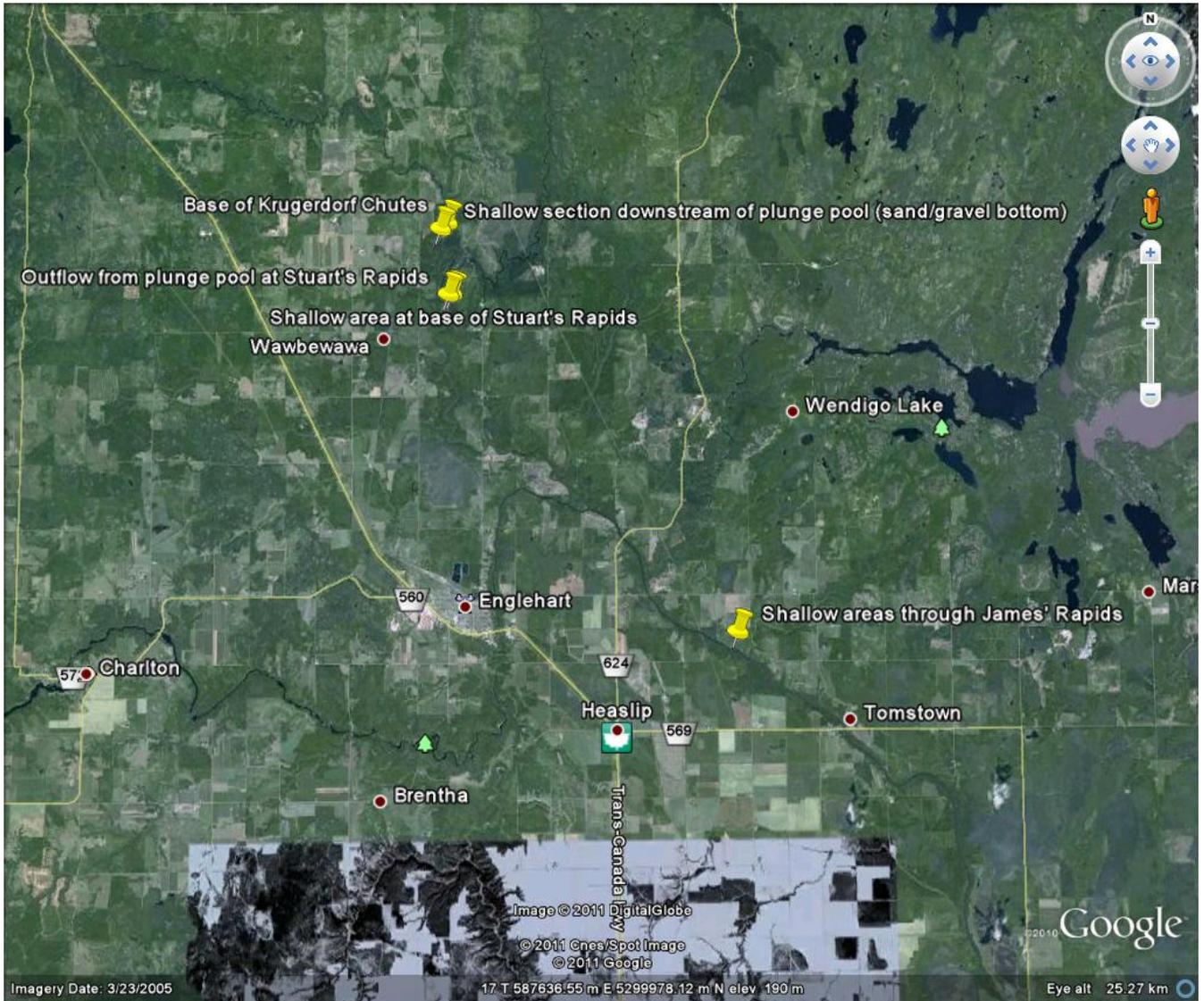
Area Supervisor
Kirkland Lake/Claybelt Area
Kirkland Lake District
Phone: (705) 568-3244
Fax: (705) 568-3200
Email: eleonor.moro@ontario.ca

C.c. Nancy Daigle, Park Superintendent for the Cochrane Cluster
Edward Morris, Ontario Parks
Muhammad Sajjad Khan, Ministry of Environment
Tina Webb, Ministry of Environment
Kelly Eggers, Department of Fisheries and Oceans

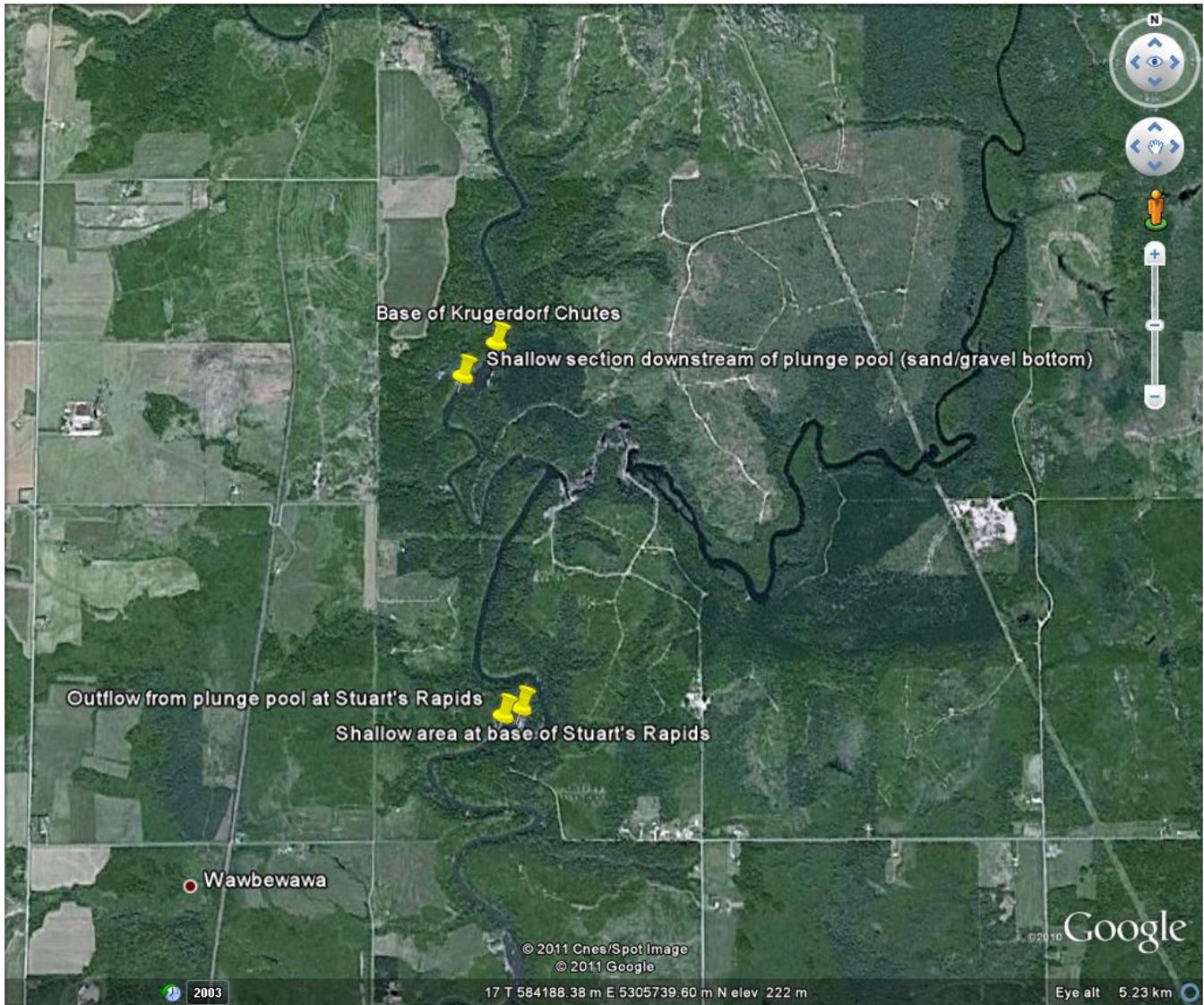
/rg

Appendix 1

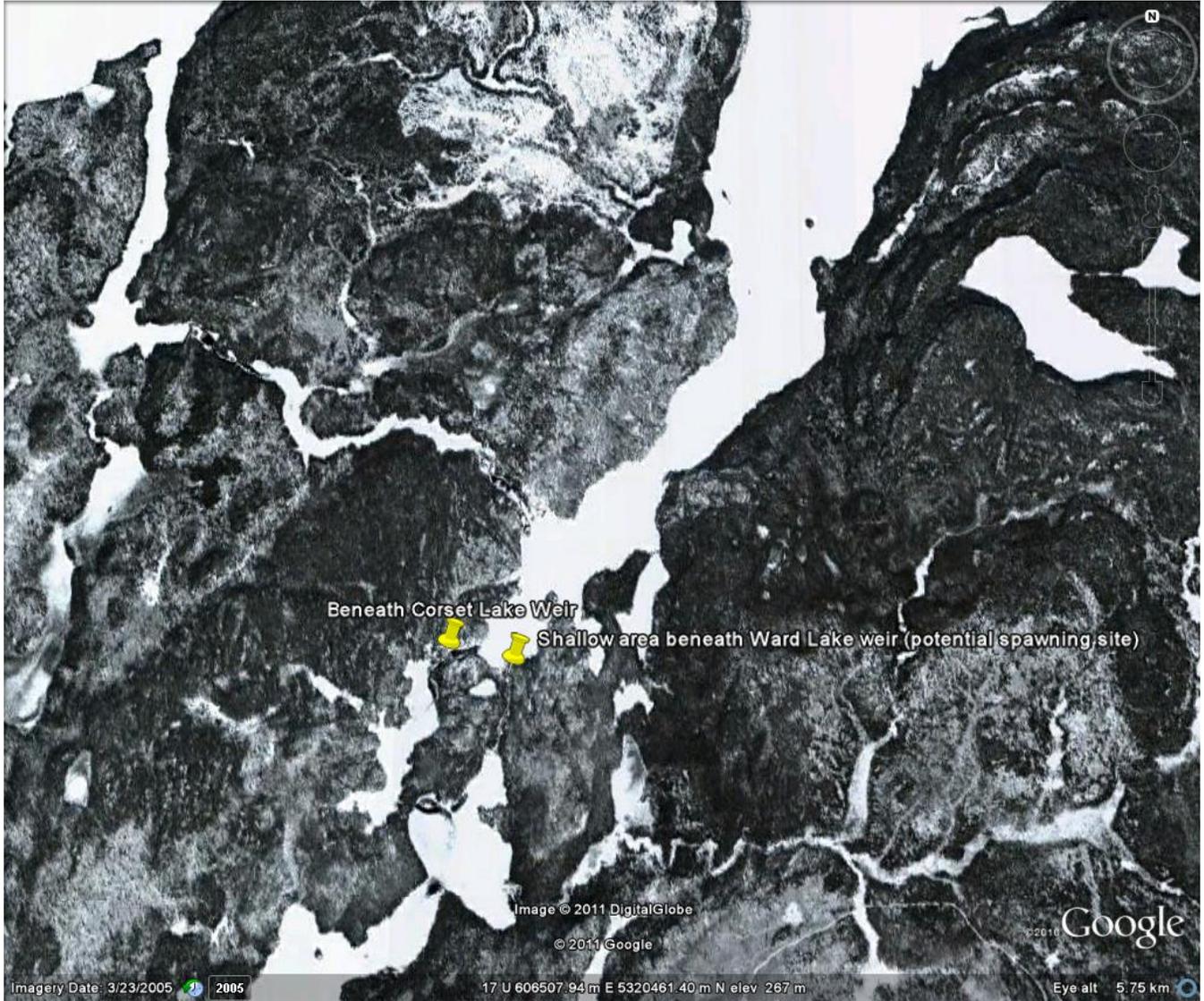
Overview of Blanche River Cross Section Locations



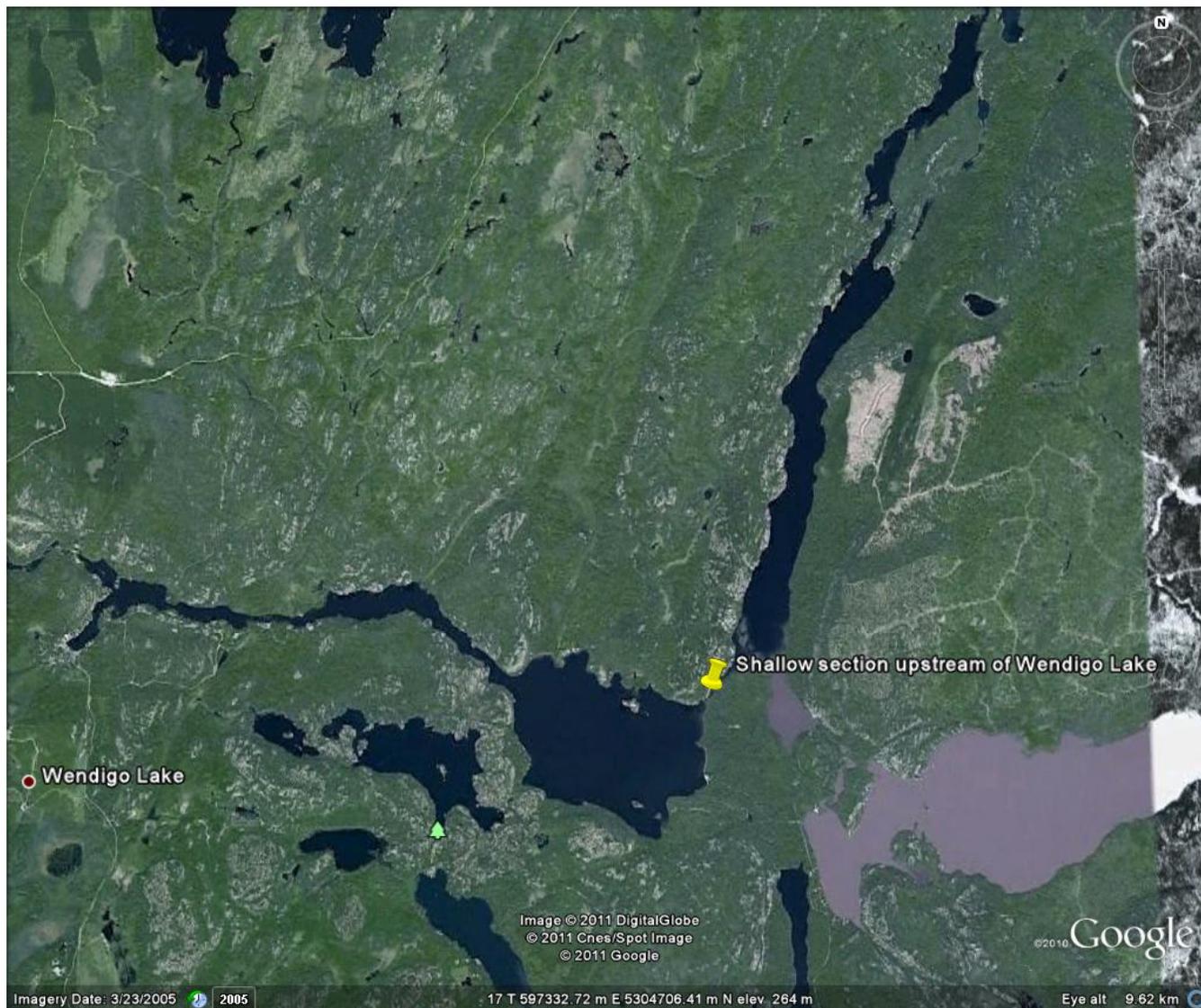
Upstream & Downstream of the Blanche & Misema River Confluence



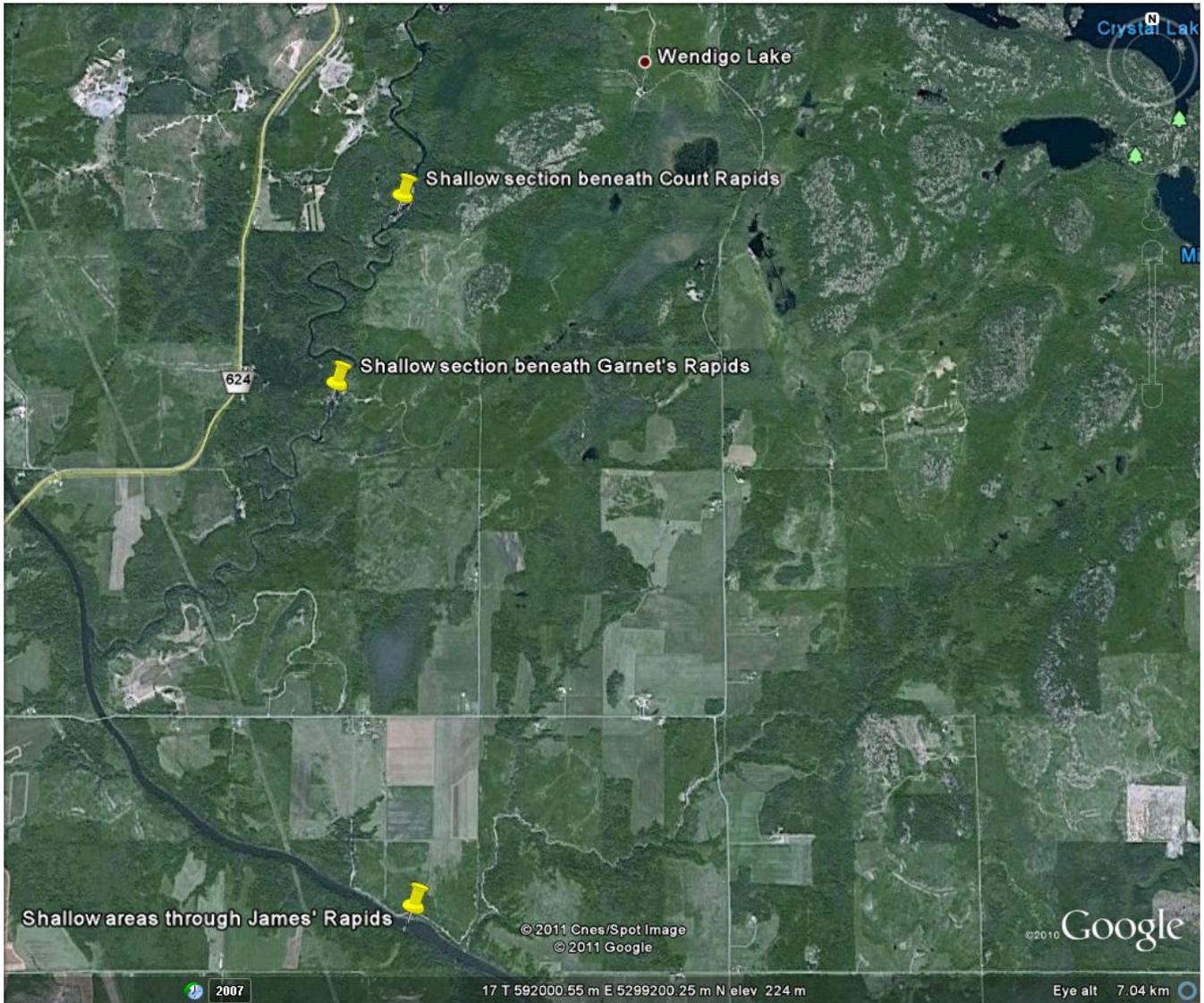
Larder River Downstream of Raven Lake Weirs



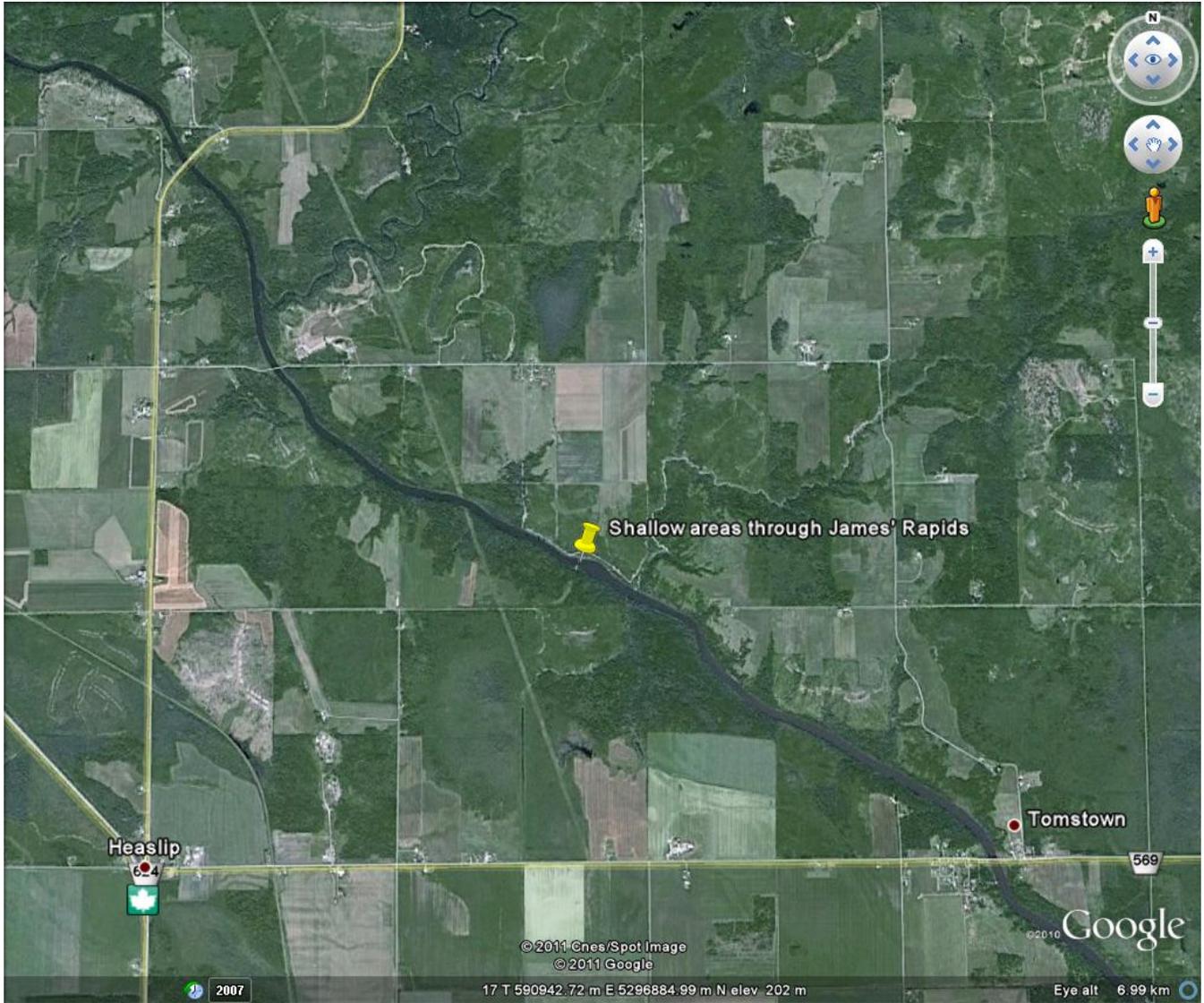
Larder River Upstream of Wendigo Lake



Larder River Downstream of Wendigo Lake



Blanche River Downstream of Confluence of Larder and Blanche Rivers



From: Walker, Shaun (MNR) <shaun.walker@ontario.ca>
Sent: July-25-12 10:41 AM
To: Muriel Kim
Cc: Greenaway, Christine (MNR)
Subject: RE: Proposed Blanche River waterpower project - Upcoming distribution of the DRAFT Environmental Report

Hi Kim,

Thanks very much for this review opportunity. I am the 'appropriate one window contact' for the Kirkland Lake District MNR office. If we were able to get two hard copies it would certainly help to reduce our review time and likely result in a more detailed / productive review.

Note that my comments / request above pertain only to the MNR's Kirkland Lake office. I suspect that my colleagues in the Northeast Regional office may have additional requirements and have cc'd them on this message expecting that they will follow up with you accordingly.

Thanks again Kim,

Shaun Walker

District Planner
Kirkland Lake District
Ministry of Natural Resources
(705) 568-3231

From: Muriel Kim [<mailto:mkim@wesa.ca>]
Sent: Tuesday, July 24, 2012 10:55 AM
To: kelly.eggert@dfo-mpo.gc.ca; stephanie.davis@ceaa-acee.gc.ca; lisa.mcdonald@tc.gc.ca; EACoordination_ON@inac-ainc.gc.ca; katherine.hess@hc-sc.gc.ca; sheryl.lusk@ec.gc.ca; Caitlin.Scott@NRCan.gc.ca; Webb, Tina (ENE); Walker, Shaun (MNR); Webber, Gerry (MTCS); Lillie-Paetz, Jennifer (MNDM); Smith, Brett (ENERGY); Pickles, David (MAA); Marleau, Paul (MTO)
Cc: Tami Sugarman; Kai Markvorsen
Subject: Proposed Blanche River waterpower project - Upcoming distribution of the DRAFT Environmental Report

Good afternoon,

We will soon be distributing the DRAFT Environmental Report (ER) for the proposed Xeneca Power Corporation Inc. waterpower development on the Blanche River (Marter Township).

The proposed undertaking is subject to the Class Environmental Assessment for Waterpower Projects as a new project on a managed waterway. While there is no formal requirement for a draft ER in the Class EA for Waterpower Projects, this document will be circulated to key parties in order to facilitate an efficient regulatory review of the final document.

We would like to confirm that you continue to be the appropriate one-window contact at your organization, and whether there are additional individuals within your organization whom you believe should also receive a copy of the draft ER. We are planning to distribute one hard copy and one CD-ROM to each regulator on our contact list; please let us know if you would like to receive additional copies, or if only one form of the report (hard copy or CD-ROM) would suffice.

I will follow up this message with a phone call within the next couple of days to confirm your participation in the review process.

Best regards,
Muriel Kim



Muriel Kim M.Sc.
Environmental Scientist

(T) (613) 839-3053 x261 (C) (613) 294-3886 mkim@wesa.ca www.wesa.ca

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From: Mark Holmes <mholmes@xeneca.com>
Sent: August-10-12 10:15 AM
To: Walker, Shaun (MNR)
Cc: Uwe Roeper; Vanesa Enskaitis; Tami Sugarman; Kristi Beatty
Subject: FW: request for information

August 10, 2012

Hi Shaun:

As you might recall from our July 20 meeting on our Marter Township GS, questions arose with respect to the operation of the Misema GS downstream of our project. At that time Xeneca staff believed they had a copy of the Misema Water Management Plan and/or Operating Plan.

After a thorough search of our files, it appears we do not have these documents. It would really help the questions raised on cumulative effects if we can review the documents. Can you please provide us with a copy?

Thanks and best regards,

Mark Holmes
Vice President
Corporate Affairs
Xeneca Power Development

5255 Yonge St.
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From: Mark Holmes <mholmes@xeneca.com>
Sent: August-10-12 9:01 AM
To: Lauren.McDonald@ontario.ca; Greenaway, Christine (MNR); Walker, Shaun (MNR); Cramm, Ellen (ENE); kelly.eggerts@dfo-mpo.gc.ca
Cc: Uwe Roeper; Ed Laratta; Kristi Beatty; Stephanie Hodsoll; Tami Sugarman; Nava Pokharel
Subject: FW: Response to October request for additional information for bathymetry at Marter sites

August 10, 2012

Dear Lauren:

In response to your October 2011 letter regarding bathymetry studies downstream of our Marter Township project on the Blanche, and, following up on our July 20 meeting with DFO and MOE, please be advised that, for bathymetry, ORMG obtained depth readings at 7 cross sections ranging from above Stuart's Rapids to the channel below the deep pool. Mapping of all points and depths will be completed this week so we can provide a map and data shortly. Flow data can be modelled based on actual readings upstream. Also obtained by our consultants are wetted width measurements and depths, as well as recordings of the high water mark at each cross section.

Assessment of depths at James' Rapids will be carried out in late Aug when ORMG is back on site.

Preliminary assessment indicates there will be no unexpected results, and, once the data has been analyzed and reviewed, we will share it with your office.

With respect to Jame's Rapids, given that this section of river is at least 20 kms from the project site and there are three major confluences (Misema, Englehart and Larder Rivers) it is extremely unlikely that operations from our GS will have any significant impact. However, we are discussing this concern with our engineering consultants and will advise if they have a concern or additional perspective.

Regardless, and as noted above, our biology consultants will be back in the field later this month to do site reconnaissance at James' Rapids. We will make this information available to your office, but it will not be available until after the draft EA has been submitted. This data will be provided in the final EA, and, if studies later this month show James' is impacted, the final EA and Operating Plan will note that Xeneca will further modify its operations to mitigate any substantive concerns.

Best regards,

Mark Holmes
Vice President
Corporate Affairs
Xeneca Power Development

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From: Greenaway, Christine (MNR) <Christine.Greenaway@ontario.ca>
Sent: October-16-12 3:51 PM
To: Nava Pokharel
Cc: McDonald, Lauren (MNR); Walker, Shaun (MNR); Moro, Eleanor (MNR); Marinigh, Leah (MNR); Turnbull, Brian (MNR); Khan, Mohammad Sajjad(ENE); Pyrce, Rich (MNR); Eggers, Kelly; Nelson, Corrinne (MNR); Ed Laratta; Mark Holmes; Uwe Roeper; Kai Markvorsen; Tami Sugarman; Kristi Beatty; Uwe Roeper
Subject: RE: Hydrologic Assessment Table - Marter Twp Project

Thanks Nava,

I will distribute for review within MNR and will let you know if we have any questions.

Christine Greenaway

A/ Renewable Energy Coordinator
Northeast Region
Ontario Ministry of Natural Resources
Hwy 101 East
South Porcupine, ON P0N 1H0
Phone: (705) 235-1185
Fax: (705) 235-1246
Email: Christine.Greenaway@Ontario.ca

From: Nava Pokharel [<mailto:NPokharel@xeneca.com>]
Sent: October 12, 2012 4:57 PM
To: Greenaway, Christine (MNR)
Cc: McDonald, Lauren (MNR); Walker, Shaun (MNR); Moro, Eleanor (MNR); Marinigh, Leah (MNR); Turnbull, Brian (MNR); Khan, Mohammad Sajjad(ENE); Pyrce, Rich (MNR); Eggers, Kelly; Nelson, Corrinne (MNR); Ed Laratta; Mark Holmes; Uwe Roeper; kmarkvorsen@oel-hydrosys.ca; Sugarman, Tami; Kristi Beatty; Uwe Roeper
Subject: Hydrologic Assessment Table - Marter Twp Project

Hi Christine,

As requested in the recent agencies meeting, we have filled the hydrologic assessment table of Marter Twp Project in Blanche River. I have attached the table with this email. We had a lot of challenges to fill this information as the proper version of SAAS program and guidelines were not available to general public to prepare this table, but we have done our best.

Please let us know if you have any questions on this.

Best Regards,
Nava Pokharel

Nava Pokharel (M.Sc., P.Eng.) | Senior Project Manager | **Xeneca Power Development Inc.**
5255 Yonge Street, Suite 1200, North York, M2N 6P4, ON, Canada
Direct: 416 590 3076 | **Main:** 416 590 9362 **Ext** 3076 | **Fax:** 416 590 9955 | **Cell:** 416 524 0323 |

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From: Stephanie Hodsoll <SHodsoll@xeneca.com>
Sent: February-13-13 2:03 PM
To: Moro, Eleanor (MNR)
Subject: RE: DRAFT Marter - Letter to downstream landowners_5feb2013

Hi Eleanor,

Thanks for your email and your comments.

I've spoken to Mark , and he had the following comments:

Given that TransAlta is already varying flows by up to 40 cm and Xeneca has committed to operate around TransAlta to avoid exacerbating the flow variations, do you really want to get into specific numbers? If there is any issue raised around the water level fluctuations it will fall on both MNR and TransAlta to explain the existing condition.

There is long-standing legal precedent that clearly defines what is considered or not considered to be an impact to shoreline landowners. Given that ALL impacts of the Marter projects are within the existing river channel and that level fluctuations will not exceed the current conditions, Xeneca is NOT impacting downstream landowners.

We agree notification is an important element of consultation and I believe we have clearly demonstrated that consultation efforts are equal to, and, in this project, above what is prescribed by the OWA Class EA.

If you wish to discuss any further, please give Mark or myself a call.

Thanks,
Steph

416-590-3077

-----Original Message-----

From: Moro, Eleanor (MNR) [<mailto:eleanor.moro@ontario.ca>]
Sent: Tue 2/12/2013 11:17 AM
To: Stephanie Hodsoll
Subject: RE: DRAFT Marter - Letter to downstream landowners_5feb2013

Hi Stephanie,

Thank you for the opportunity to look at the draft landowner consultation letter. The letter provides some helpful general information to downstream landowners about Xeneca's process and outreach to date on public consultation.

Most landowners will be looking for more concrete information on effects than this draft letter provides. Words and phrases "such as there may be a change in the frequency of flow variation whereby, at certain time of the year, levels may change by a few centimetres between centimetres between night and day" are confusing and perhaps in some cases misleading.

I can only suggest that the communication to downstream landowners clearly indicate what the level and flow changes will be for downstream owners using Xeneca's preferred operating regime.

I would like to state again as I have at a number of meetings that there is no 66 foot shore reserve to the Crown on the river front properties. I mention this again as it seems there a continued confusion by the project proponents on this matter. The landowners who abut the river have riparian rights that must be considered when the permits under LRIA are issued.

Eleanor Moro
Kirkland Lake / Claybelt Area Supervisor
Kirkland Lake District, Ministry of Natural Resources
705-568-3244

From: Stephanie Hodsoll [<mailto:SHodsoll@xeneca.com>]
Sent: Tuesday, February 05, 2013 4:47 PM
To: Moro, Eleanor (MNR)
Subject: DRAFT Marter - Letter to downstream landowners_5feb2013

Hi Eleanor,

Hope you're doing well.

After the January discussions about a need for further consultation with landowners downstream of the Marter site, just wondering if you could comment on this draft letter for downstream landowners.

Any thoughts or comments appreciated! If you could get this back to me next Tuesday, February 12, that would be great.

Thanks again,
Steph

From: Kristi Beatty <ormgkb@ormg.org>
Sent: April-12-13 4:16 PM
To: McDonald, Lauren (MNR); Stephanie Hodsohl; Walker, Shaun (MNR); Moro, Eleanor (MNR)
Cc: Mark Holmes; Grace Yu; Ed Laratta; Eggers, Kelly; Greenaway, Christine (MNR)
Subject: RE: baseline data

Thanks Lauren – The requirement for the IGF for Sturgeon is understood. We have the draft completed, and will ensure it gets submitted in accordance with permitting requirements, regardless of the outcome of hydrology meetings.

Kelly, if there are other pieces of information or details that you still wish to have clarified, please let me know and I will provide you with answers as quickly as possible!

Cheers, and enjoy the snow!
Kristi

Kristi Beatty
P (613) 638-0283
C (613) 639-8585
ormgkb@ormg.org
www.ormg.org

From: McDonald, Lauren (MNR) [mailto:Lauren.McDonald@ontario.ca]
Sent: April-12-13 3:30 PM
To: 'Kristi Beatty'; 'Stephanie Hodsohl'; Walker, Shaun (MNR); Moro, Eleanor (MNR)
Cc: 'Mark Holmes'; 'Grace Yu'; 'Ed Laratta'; 'Eggers, Kelly'; Greenaway, Christine (MNR)
Subject: RE: baseline data

Hi Kristi,

Thanks for sending the Bobolink IGF – I will review and provide Xeneca with my comments.

The copy of the 2012 work we had received was considered “Draft” and made mention of further work that was to be completed during August and November (after the Draft ER was submitted for agency review). I have been under the impression that there is a final version of this document to be sent out to the agencies that would include the additional work. I have copied Kelly Eggers on this email, as I know she has also inquired into the report on recent calls.

I understand holding off on the Lake Sturgeon IGF until after the conversations on the ZOI are complete. Once we have held the technical meetings I expect we will all have a better understanding of impacts at the site due to the proposed operations. However, I will require an IGF for sturgeon submitted prior to permits and approvals (even if the result is “no impact”), in order for MNR to review and provide a response back (similar to the Bobolink IGF).

Have a great weekend,
Lauren

Lauren McDonald
Management Biologist, Kirkland Lake/Claybelt Area
Ontario Ministry of Natural Resources
Kirkland Lake District
Tel. (705) 568-3241
Fax (705) 568-3200

From: Kristi Beatty [mailto:ormgkb@ormg.org]
Sent: April 12, 2013 3:06 PM
To: McDonald, Lauren (MNR); 'Stephanie Hodsoll'; Walker, Shaun (MNR); Moro, Eleanor (MNR)
Cc: 'Mark Holmes'; 'Grace Yu'; 'Ed Laratta'
Subject: RE: baseline data
Importance: High

Lauren – please find attached the requested IGF for Bobolink.

We are working to figure out a way to get the large 2012 Baseline Report to you. It was my understanding that this report had been sent out for review to all agencies well in advance of the Draft ER, so I am not sure how that got missed. If we have to get a digital copy burned to disc and mailed, I will ensure Xeneca gets a copy out to you as soon as possible. I will keep you updated on our progress with providing it in digital format (Mark/Steph/Grace – perhaps we can utilize the Xeneca ftp site again?).

We had shelved the IGF for Sturgeon due to ongoing discussions about downstream ZOI and impacts. If the downstream ZOI discussions find that Xeneca's OP for Marter falls within Misema's current fluctuations, we are not altering sturgeon habitat beyond existing conditions – therefore, no HADD occurs, nor will any ESA permits be required. If you would still like to see an IGF for Sturgeon, though, we can provide one!

Once the aforementioned info has been received and reviewed, and the hydrology group assesses the ZOI info per yesterday's call, I agree that the technical working group can start working to finalize any other outstanding issues.

Thanks Lauren, and I look forward to hearing from you!

Cheers,
Kristi

Kristi Beatty
P (613) 638-0283
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From: McDonald, Lauren (MNR) [mailto:Lauren.McDonald@ontario.ca]
Sent: April-12-13 2:17 PM
To: 'Stephanie Hodsoll'; Walker, Shaun (MNR); Moro, Eleanor (MNR)
Cc: Mark Holmes; Kristi Beatty; Grace Yu; Ed Laratta
Subject: RE: baseline data

Hi Stephanie,

I took a look at the information provided, and I wanted to be sure I understood the documents provided. The Word Document is meant to provide further information wrt the sandbar area at the base of Krugerdorf Chutes, in order to feed into our technical discussions of impacts, correct?

Also, MNR has not yet received the following documents that have been discussed in the past:

- 2012 Environmental Characteristics Report
- Information Gathering form for Bobolink

- Information Gathering form for Lake Sturgeon

Short of having that information, and having a thorough understanding of the new proposed operating plan, I can't confirm that the information provided/collected to date is adequate for the purposes of meeting permitting requirements. I have mentioned before that potential impacts to the environment, and mitigation of those impacts, must be understood prior to permit issuance. I believe that the technical meeting we spoke of on yesterday's call (that included the hydrologists and biologists) has good potential to move the yardsticks.

If you have any further questions, or require clarification of the above, please don't hesitate to contact me.

Regards,
Lauren

Lauren McDonald

Management Biologist, Kirkland Lake/Claybelt Area
Ontario Ministry of Natural Resources
Kirkland Lake District
Tel. (705) 568-3241
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Email: lauren.mcdonald@ontario.ca

From: Stephanie Hodsooll [<mailto:SHodsoll@xeneca.com>]
Sent: April 12, 2013 12:54 PM
To: McDonald, Lauren (MNR); Walker, Shaun (MNR); Moro, Eleanor (MNR)
Cc: Mark Holmes; Kristi Beatty; Grace Yu; Ed Laratta
Subject: RE: baseline data

Hi Lauren,

I've talked to Kristi about the baseline data and it is our hope that now, with the baseline data in the draft EA which you have, as well as the summary chart that was sent out earlier today, you have sufficient information??

If there is something else, specifically, that you would like, please let us know and we will do our best to get you that info.

Thanks again,
Steph

Stephanie Hodsooll

Stakeholder Relations
Xeneca Power Development
5255 Yonge St., Suite 1200
North York, ON M2N 6P4
(416) 590-3077

From: McDonald, Lauren (MNR) [<mailto:Lauren.McDonald@ontario.ca>]
Sent: Thursday, March 28, 2013 12:07 PM
To: Stephanie Hodsooll; White, Rosanna (ENE); kelly.eggert@dfo-mpo.gc.ca; Moro, Eleanor (MNR); Walker, Shaun (MNR); Pyrce, Rich (MNR); Kristi Beatty; Nava Pokharel; Mark Holmes; Turnbull, Brian (ENE); Grace Yu; kfortin@wesa.ca; mkim@wesa.ca
Cc: kbeatty@vianet.ca; Uwe Roeper_External; Greenaway, Christine (MNR)
Subject: RE: Marter/Misema operations

Thank you for sending this information, Stephanie.

Please note that, as the meeting is to take place in less than 2 business days from the time the report was sent, MNR will not have an opportunity to complete a review on this report, or any additional reports submitted from now until the meeting time.

I will also take this opportunity to note that MNR has yet to receive the report detailing the environmental baseline work that was completed in 2012, as per previous discussions.

Regards,
Lauren

Lauren McDonald

Management Biologist, Kirkland Lake/Claybelt Area
Ontario Ministry of Natural Resources
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Email: lauren.mcdonald@ontario.ca

From: Stephanie Hodsooll [mailto:SHodsooll@xeneca.com]

Sent: March 28, 2013 11:44 AM

To: White, Rosanna (ENE); Kelly.eggars@dfo-mpo.gc.ca; Moro, Eleanor (MNR); Walker, Shaun (MNR); McDonald, Lauren (MNR); Pyrce, Rich (MNR); Kristi Beatty; Nava Pokharel; Mark Holmes; Turnbull, Brian (ENE); Grace Yu; kfortin@wesa.ca; mkim@wesa.ca

Cc: kbeatty@vianet.ca; Uwe Roeper

Subject: Marter/Misema operations

Hi everyone,

In recent Marter project meetings, MNR and other agencies have expressed concerns about the Marter & Misema generating stations operating in peaking mode at the same time. We engaged a consultant (Ortech) to review this issue and asked for their suggestions/opinions about whether the operation of the Marter GS around the Misema GS operation is achievable.

Please find attached a short memo report prepared by the consultant addressing this issue. We hope this document will be useful for the upcoming April 3 meeting.

Thanks!
Steph

Stephanie Hodsooll

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(416) 590-3077

From: Stephanie Hodson <SHodson@xeneca.com>
Sent: May-02-13 4:27 PM
To: Walker, Shaun (MNR); McDonald, Lauren (MNR); Moro, Eleanor (MNR)
Cc: White, Rosanna (ENE); Eggers, Kelly; Kristi Beatty; Muriel Kim; Ciara DeJong; Nava Pokharel; Mark Holmes
Subject: Marter Twp. Thermal Report
Attachments: Marter Twp Thermal Report_Ortech_2013_April.pdf

Good afternoon everyone,

Please see the attached thermal report for the Marter project, prepared by Ortech, which outlines the screening assessment for water temperature changes related to the project. The report shows that based on the small increases in open water area, the short residence times and the limited potential for stratification resulting from the proposed waterpower project, that the propensity for water temperature changes in the Blanche River is low.

If you have any comments, please let me know.

Yours truly,
Steph

Stephanie Hodson
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Wednesday, August-07-13

Ministry of Natural Resources (MNR)
MNR Kirkland Lake District
Kirkland Lake, ON
Sent by e-mail: shaun.walker@ontario.ca

Attention: Shaun Walker, District Planner

Re: DZOI – Marter Project

Dear Shaun:

In follow up to the multi-agency call on July 15, 2013, Xeneca would like to propose a path forward to resolve the outstanding comments on the topic of Downstream Zone of Influence (“DZOI”) for the proposed Marter project on the Blanche River.

Although the range of the proposed daily operation is within the range of water level changes that occur under existing conditions, daily water level fluctuations will occur on more days than under existing conditions. This has led to questions about the extent of the additional flow alteration and whether such alteration results in impacts that require additional habitat assessment.

Outlined below are the areas of apparent consensus, the outstanding issues and the proposed path forward.

Areas of Apparent Consensus:

The DZOI consists of 3 downstream sections of river:

1. Dam site to Misema River confluence.
2. Misema River confluence to Englehart River confluence.
3. Englehart River confluence and beyond.

It appears that agencies have accepted that the existing operation on the Misema River, as documented at the Water Survey of Canada gauge station on the Blanche River represents the “existing condition” from which any flow “alteration” is defined. The existing condition is outlined in a memo by ORTECH Environmental, dated March 27, 2013.

It appears that agencies have largely accepted the concept of operating the proposed Marter project “around” the existing daily operation on the Misema River. The operation would avoid having low flows and high flows coinciding, such that the maximum flow fluctuation and the minimum flow provided would be within the range currently experienced on the Blanche River. The proposed operation is outlined in the above referenced memo, as well as, a follow-up memo by ORTECH Environmental, dated May 9, 2013.

Xeneca recognizes the comments by agency staff that, despite the effort to operate within the existing conditions with respect to maximum flow fluctuations and minimum flow, there will be days when the proposed Marter project would operate when no operation would have occurred otherwise.

Outstanding Issues:

Based on the most recent meeting on July 15th, 2013, we believe the outstanding issues to be as follows:

- Additional days of operation represent additional alteration and the cumulative effect must be rationalized.
- Xeneca needs to demonstrate how it plans to operate such that it does not result in two daily cycles, rather than one under existing conditions.
- Xeneca needs to rationalize what, if any, additional habitat analysis or monitoring is required to assess any impacts or effects resulting from the additional flow alteration.

Additional Alteration:

At the meeting on July 15, 2013, agency technical staff indicated that the proposed Marter project will result in additional days of fluctuations in the downstream flows and levels beyond those experienced under existing conditions. ORTECH Consulting confirmed this assessment on the call and agreed to define the number of additional days where operation could occur in a post-project scenario. The ORTECH analysis is being submitted under separate cover.

Xeneca notes that the additional alteration is well within the same magnitude and frequency as the existing condition. The additional aspect comes from the days of intermittent operation where the proposed Marter facility operates on days when the Misema facility does not. The water level and flow fluctuations that occur during the additional days are of the same magnitude as the fluctuations that occur on a regular basis under existing conditions. As under existing conditions, the proposed fluctuation results in a frequency of one operating cycle over 24 hours.

The existing and proposed flow fluctuations have been studied in detail. The results of the HEC-RAS hydraulic studies have shown that the downstream fluctuations attenuate quickly with distance downstream. The existing fluctuations of approximately +/- 0.3 meters at the confluence of the Blanche River and the Marter River attenuate to less than +/- 0.1 meters by the time the river reaches the Town

of Englehart (17 km downstream). The additional days of operation follow the same attenuation pattern. An operating plan document has been prepared and circulated, outlining the details of how the proposed operation will work under various flow conditions and under what circumstances the flow fluctuations will occur. Mitigation measures and proposed compliance constraints have been outlined to limit the daily operation at all times (even during the additional days) to remain within the existing conditions.

Stakeholder consultation on the proposed water level fluctuations has been extensive. In addition to various stakeholder engagement forums, letters were sent, as per MNR advice, to landowners, including all landowners adjacent to the Blanche River and downstream from the proposed Marter site to the Town of Englehart. The public information centres held for the project included a poster and explanation about flow alteration impacts. The DZOI on the posters was shown to include the entire downstream reach to the Town of Englehart.

In summary, Xeneca acknowledges that some additional days of operation and flow alteration will occur which would not occur under existing conditions. However, the operation on those days will be of the same magnitude and frequency as the fluctuations occurring under existing conditions on a regular basis. Adequate consultation has occurred on this aspect of the EA.

Two Daily Cycles:

Agencies commented that, without adequate information about the operation of the Misema facility, there is a risk that a delay would occur between the end of a release at Misema and the start of a release at Marter. The result could be two fluctuations per day, rather than the existing condition of one fluctuation.

It is Xeneca's intent to maintain only one operating cycle per day. To achieve this, a flow release ending at one facility has to be followed immediately by a flow release from the other facility so that the combined flow release makes up, to the extent possible, one single extended flow release cycle. No significant time can elapse that would allow water levels to recede between the two operations. Xeneca proposes the following to address this matter:

- Xeneca will make all reasonable efforts to arrive at a data sharing arrangement with the operator of the Misema facility. The data would allow releases and low flow requirements to be coordinated between the two facilities. The data sharing arrangement would be pursued in the context of the Water Management Planning process under the MNR mandate. If successful, the coordination of flows and releases would be assured.
- If a data sharing agreement is not reached by the time that the proposed Marter facility goes into commercial operation, a real-time monitoring sensor will be installed at the confluence of the Misema River and the Blanche River. The information will provide the data necessary to adjust flow at Marter as soon as a change in flow is detected from the Misema facility.

- If the above information inputs are not available, at any time, for any reason, Xeneca commits to operate the Marter facility in a manner that does not cause double releases to occur in the same day, including, if necessary, to operate the Marter facility in true run-of-river operation during such times.

In addition to planned releases, significant water must be reserved to ensure that the commitment to provide minimum flows can be met. Recognizing that an additional dip in flows would result and minimum flow commitments would not be met, Xeneca proposes the following to address this matter:

- The operation of the Marter facility will be planned in advance every day. Using information of the available inflow and headpond level, the operating profile for the upcoming day will be planned in accordance with the proposed operating profiles (see Appendix 1 of Operating Plan, ORTECH, 2013). Sufficient water will be set aside to ensure that the minimum flow requirements can be met after the release has occurred.
- In the event of a miss-calculation, the Marter facility will go to run-of-river operation (i.e. passing through all available flow) whenever the minimum flow requirement is not being met.
- Flow and water level monitoring will be used to verify compliance.

The proposed commitments outlined above will adequately address this matter. Xeneca plans to update the Operating Plan to reflect the proposed commitment.

Habitat Studies:

Agency staff indicated that Xeneca needs to rationalize what additional habitat work is required to address the additional impacts resulting from the additional days of operation.

Potential impacts have been assessed. In summary, the assessment results are as follows:

- A significant amount of assessment work was carried out between 2010 and 2013, including assessment of alterations to temperature, sediment/erosion, water quality and flow.
- A qualitative temperature assessment was carried out. No significant temperature alteration was predicted and hence no expected environmental impact is expected. Monitoring is proposed to confirm this prediction (see ORTECH temperature letter, April 16, 2013).
- Sediment/erosion alterations were assessed from the upper end of the headpond to the confluence of the Misema River (see Geomorphology report, Parish 2012). No significant impact is predicted by the report for this reach. Regarding the river reach downstream of the Misema River confluence, much of the proposed operation will be within existing conditions. Also, hydraulic models show that the flow alterations attenuate (i.e. become less) with distance downstream. No obvious sediment or erosion issues have been reported from anecdotal and stakeholder sources related to the existing conditions. The additional days of operation and flow alteration is within the same amplitude as the flow alterations under existing conditions. Given the lack of evidence of a significant impact under existing conditions and the limited amount of

additional flow alteration, an impact on sediment and erosion is unlikely. Monitoring is proposed to confirm this prediction. Where monitoring shows an effect, a study will be carried out to determine the root cause of the effect. Where the root cause is shown to be related to the additional operation, remedial measures will be implemented. If necessary, flow alteration will be reduced such that the flow alteration is fully within existing conditions.

- Water quality questions have been addressed through the initial baseline studies in 2010, as well as, the comprehensive water quality program agreed to with MOE in 2011 and implemented in 2012/2013. Projected water quality changes are limited (see Hutchinson report, 2012). A detailed future monitoring plan has been agreed to with MOE.
- Flow and flow alteration has been assessed in a series of studies, including hydrology, hydraulics and operations planning. Extensive mitigation has been built into the operating plan to limit the degree of downstream flow alteration including to:
 - (a) restrict operation during critical habitat periods (i.e. spawning),
 - (b) limit flow variation from day to night,
 - (c) minimize ramping, and
 - (d) operate “around” the existing Misema facility.

Ongoing monitoring of flows and levels is proposed to demonstrate operation of the proposed facility within the framework established in the environmental assessment process.

The following habitat work was carried out to establish baseline conditions and assess if the proposed flow alterations could result in habitat impacts downstream:

- Fish species were identified so that periods of critical habitat function could be defined (eg. spawning periods). This information was then used to set operating restrictions in the proposed operating plan.
- Critical habitat locations were identified and studied in the river reach downstream of the proposed site and to the Englehart River confluence, including the pool and sandbar in the tailrace area and Stuart’s Rapids.
- A reconnaissance survey was carried out by a professional biologist in the river reach downstream of the proposed site and to the Englehart River confluence.
- A habitat survey was carried out at James’ Rapids (downstream of Englehart River confluence and outside the ZOI) and it was concluded that there would be no perceptible impacts due to flow alterations.

Based on the assessment studies and habitat work carried out, it is our view that the outstanding issues have been adequately addressed and no further habitat assessment is required. The following summarizes why we feel this position is reasonable:

- The proposed operation and resulting flow alteration in the DZOI is largely within existing conditions.
- Where additional flow alteration exists (extra days of operation) it occurs in the same manner and amplitude as under existing conditions (i.e. very limited deviation from existing condition).

- Special operational mitigation is proposed during critical habitat periods (i.e. run of river flows during spawning, minimum flows consistent with existing conditions).
- Alterations to temperature, sediment/erosion and water quality are predicted to be minor and not likely to result in habitat impacts.
- In light of the very limited potential impacts, a reasonable amount of habitat assessment has been carried out with special emphasis on critical habitat locations (riffles, pools).
- Monitoring has been proposed to verify the predicted impacts. Adaptive management has been proposed in the event that unexpected outcomes should occur.

Summary:

It appears that there is sufficient information to address the outstanding comments regarding DZOI and the additional days of flow alteration on the proposed Marter project as follows:

- The degree of additional flow alteration is limited in scope and distance. Extensive public consultation has occurred to the Englehart River confluence. Xeneca believes that the extent of public consultation on flow alteration in the DZOI has been adequate to meet the requirements of the Waterpower Class EA.
- The concern about two operating cycles per day can be adequately addressed with operational measures as proposed herein. Subject to consensus with agencies, Xeneca would update the Operating Plan and EA report accordingly.
- Given the assessments carried out within the DZOI, the limited impacts identified and the significant habitat work done, it is not unreasonable to conclude that the study effort has been adequate.

We look forward to discussing the path forward with you at the upcoming meeting.

Yours truly,

Uwe Roeper, CEO

cc: Rosanna White, MOE

Subject: FW: Marter temperature data

From: Stephanie Hodsoil

Sent: Thursday, November 21, 2013 12:17 PM

To: McDonald, Lauren (MNR); Walker, Shaun (MNR)

Cc: White, Rosanna (ENE); Eggers, Kelly; Nava Pokharel; Kristi Beatty; Mark Holmes

Subject: Marter temperature data

Hi Lauren,

As requested during the April 11th meeting, please see attached the Marter baseline temperature data.

If you have any questions please let me know.

Thanks,
Steph

Stephanie Hodsoil

Stakeholder Relations Manager | Xeneca Power Development | 5255 Yonge St., Suite 1200, North York, ON M2N 6P4 |
Tel: (416) 590-3077

Ministry of Natural Resources

Downstream Zone of Influence Discussion

Subject: FW: Randy Pickering letter from June 6 2013
Attachments: I: Proposed ZOI approach / Steps moving forward; OWA Communication of MNR Field Data Collection Guidelines; MNR Message on Zone of Influence.docx

From: Pickering, Randy (MNR) [<mailto:randy.pickering@ontario.ca>]
Sent: Thursday, June 06, 2013 2:51 PM
To: Uwe Roeper
Cc: Arnold Chan; Vanesa Enskaitis; Stephanie Hodsoll; Brindle, Ginette (MNR); Mark Holmes; Dosser, Sandra (MNR); Greenaway, Christine (MNR); Beaudin, Sheri (MNR)
Subject: RE: DZOI - Ivanhoe and other rivers

Uwe,

Thank you for providing the information below which was discussed on our call yesterday. It will certainly form part of the context as we move forward with our review of the draft ER for The Chute/Third Falls and seek to resolve any outstanding ZOI issues for this and other Xeneca projects. I do believe we continue to make progress and am confident that workable solutions can be found to resolve outstanding issues.

I have attached a copy of our communication on ZOI referenced on yesterday's call. In response to Arnold and Mark's comments/concerns on the use of the term "no effect" in the last bullet, we have modified the wording slightly to provide what I think is more clarify of intent. As noted, this information will also be communicated to District staff to help facilitate a common understanding of approach. It should also be noted that this represents MNR's approach to ZOI as it will inform our participation as a review agency in the Class EA. MNR cannot speak for other agencies in this regard.

With regard to the reference to the 2010 interim guidelines for "Field Data Collection for Waterpower Projects", I would refer you back to a June 29, 2012 e-mail (attached) from Christine Greenaway to Xeneca which included reference to and a copy of the document (2nd attachment in the e-mail). In addition to the June 29, 2012 e-mail from Christine, the OWA provided a June 7, 2010 communication update to members specifically referencing the Guidelines (also attached).

I understand that our next meeting has now been scheduled for June 24th from 11 to 12. I look forward to our discussion.

Randy Pickering MCIP, RPP
A/Manager, Regional Resources Section
Northeast Region
Regional Operations Division
Ministry of Natural Resources
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From: Uwe Roeper [<mailto:uroeper@xeneca.com>]
Sent: June-06-13 10:34 AM
To: Pickering, Randy (MNR)
Cc: Arnold Chan; Vanesa Enskaitis; Stephanie Hodsoll; Brindle, Ginette (MNR); Mark Holmes; Dosser, Sandra (MNR);

Greenaway, Christine (MNR); Beaudin, Sheri (MNR)

Subject: DZOI - Ivanhoe and other rivers

Randy:

Further to the conference call yesterday, I appreciate that you have agreed to follow up with Xeneca and the MNR Districts on resolving the outstanding discussions on ZOI and DZOI for the Ivanhoe River as well as the other rivers.

Regarding the Ivanhoe River, attached are the most recent agency review comments (attached Word file) and Xeneca's responses (attached PDF file). It would be helpful if you could read the comments and responses related to DZOI. We would then appreciate specific advice from MNR whether Xeneca has provided sufficient information to agencies to put the DZOI matter to rest on the Ivanhoe River.

Here some background on what has transpired over the last two years:

- 2011: On two Ivanhoe sites (The Chute/Third Falls) Xeneca proposes modified run-of-river (all water released each day, but flow varies from day to night).
- 2011: Agencies express strong preference for ~~true~~ run-of-river and request, at minimum, Monthly Q80 Base Flows be provided at all times to maintain ecological integrity. Xeneca agrees to Monthly Q80 Base Flows.
- 2011: Agencies request that the hydraulic analysis on the daily variation be extended to the Groundhog River to better understand attenuation of daily variability with distance. Xeneca agrees to extended hydraulic study to the Groundhog River.
- 2012: Results of extended hydraulic analysis are provided to agencies. Agencies request matching habitat study be done. Xeneca agrees to extend habitat study to Groundhog confluence.
- 2012: Agencies put forth interpretation of DZOI endpoint – where effect no longer discernable from background variation. Xeneca rejects concept as it requires the DZOI to be extended beyond what was agreed to in 2011 (Groundhog confluence) and far more onerous than environmental assessment in other industry sectors. Further discussion occurs but no consensus or compromise is found.
- 2013: Agencies provide advice that Xeneca habitat studies are insufficient to address questions around “Ecological Integrity” in the Conservation Reserve that is located within the DZOI. Agencies advise that significantly more detailed studies will be required. Xeneca capitulates and agrees to retract its proposal for modified run-of-river and proposes true run-of-river at Third Falls (outflow equals existing conditions at all times with no modification throughout the day).
- 2013: Agencies request confirmation in writing. Xeneca submits confirmation e-mail, follow-up letter and revised operating plan.
- 2013: Agencies provide comments on revised operating plan (i.e. the May 6 comments attached) stating that just because Xeneca has agreed to run-of-river does not mean that the DZOI have been resolved and that “Xeneca must develop and present clear rationale for the asserted ZOI.” Xeneca provides responses in an attempt to resolve issue (i.e. the June 4 responses attached).

I appreciate your offer to help seek resolution on ZOI and DZOI on the Ivanhoe River and look forward to a speedy and constructive resolution. It is our view that the offer to go to true run-of-river operation at Third Falls, combined with the environmental effects studies already completed and submitted, is sufficient to close the discussion on ZOI and DZOI for the Ivanhoe River.

As the Ivanhoe ER is presently under the draft review period, it is our hope that you can give us some sense of where we sit on the ZOI and DZOI as it relates to the points you discussed yesterday. This will help inform us on how to deal with our other pending sites in the schedule we had outlined. With respect to the other sites, I will provide you with a separate e-mail(s) as to the status and background.

In the meanwhile, we look forward to receiving the copy of the direction from your office shortly. As well, I recall you mentioning on the second point of the direction that the MNR will follow section 2.5 of the OWA Class EA and something about "Interim Guidelines" on the appropriate delineation of the appropriate ZOI? Do you have a copy of that document as well? Is this part of some document that has been issued publicly? We would appreciate understanding reviewing that as well.

I look forward to hearing back from you shortly. Would it be possible to have a status update call in about two weeks after you have had the opportunity to discuss the ZOI guidance document with Chapleau District?

Best regards,
Uwe.

From: Greenaway, Christine (MNR) <Christine.Greenaway@ontario.ca>
Sent: June-29-12 6:03 PM
To: Uwe Roeper
Cc: Mark Holmes; Achan@xeneca.ca; Ed Laratta; Tami Sugarman; Dosser, Sandra (MNR)
Subject: I: Proposed ZOI approach / Steps moving forward
Attachments: ZOI Proposed Approach v2.docx; 2010 field Data Collection for Waterpower projects_May 22 2010.doc; MNR response to Xeneca proposed ZOI approach 29-06-2012.doc

Importance: High

Hi Uwe,

Thank you for submitting the document entitled "*Proposed Approach – Assessment of Downstream Zone of Influence for Small Waterpower Projects with Variable Flow due to Modified Run-of-River Operation*" (attachment #1). Staff at MNR and MOE have reviewed it collectively. This response from MNR is intended to build upon a separate response that you can expect to receive from the MOE. The MOE's response will focus on requirements to satisfy the OWA Class EA for Waterpower Projects.

In the attached response (attachment #2) the MNR provides:

- 1) an overview of MNR's mandate as it pertains to the scope of this proposal,
- 2) a suggested approach to articulating the ZOI boundary that will support MNR's decision making process, and
- 3) how Xeneca's proposed approach to impact assessment and mitigation within the ZOI compares to MNR's requirements for review of projects in accordance with its mandates.

For reference I have also attached an interim guidance document entitled "*OMNR Field Data Collection Requirements for Waterpower Projects* (draft, May 2010)" (attachment #3) which I understand has already been shared.

I trust that this information is helpful. Please let me know if you have any questions or would like to discuss our comments further.

Moving forward:

I have outlined below some recommended next steps (milestones) for Xeneca to consider as it moves through the EA process for its 11 high priority sites, starting with Wabageshik and Marter. These are recommendations recognizing the EA process is proponent-driven. Please feel free to comment and provide additional ideas about steps that should be added or additional material that can be provided in advance of meetings. We recognize the tight timelines and the need to get your staff talking with district staff in the very near future, while also providing time for district staff to review material and prepare comments so that meetings are functional and effective. I suggest we discuss in a small group a proposed timeline for all project meetings and distribution of materials. The purpose of this exercise is to be able to communicate clear meeting objectives and timelines to staff.

It might be possible to tackle the first two items in a single multi-agency face-to-face, though I can not predict the outcome of each meeting. During initial meeting the planning team could scope out whether there is a need for additional small group teleconferences to complete discussions. The next large meeting we recommend would focus on impact assessment and mitigation (step 3), recognizing that this may require a series of small working group follow-up meetings by teleconference as issues are resolved. As projects progress there may be need for topic-specific meetings so we should keep things flexible.

1a) Consensus on ZOI – Our recommended next step is for you to aim to reach consensus on the anticipated ZOI, based on best available information for each site to date, including hydraulic modelling and other considerations, and recognizing that it is an iterative process. Could start with a presentation of all of relevant material and work done to date. To inform these discussions, districts will require sufficient time to review the following in advance:

- Confirmation of scope of project and EA (e.g., 1, 2, or multiple EAs, decisions made on any uncertainties)

- Preliminary Dam Operating Plan(s) (recognizing that it may be tweaked during impact assessment and mitigation discussions)
- Seasonal and monthly operational flow graphs demonstrating typical flow ranges for each month,
- Hydraulic modelling output (maps and data) along with sensitivity analysis and a description of uncertainty with output
- existing condition compilation reports of all information collected to date (districts might have these – 2012 if possible), and
- Overlay maps showing extent of Xeneca’s preliminary anticipated ZOI (based on hydrology and other considerations) along with features identified from the existing condition reports or any other existing information collected to date
- Rationale for scope of site investigation to date within ZOI boundary

1b) Questions about existing conditions – Districts can identify and communicate any remaining or additional questions about existing conditions. New questions might arise based on new information collected in 2011 & 2012 and/or the extension of the ZOI relative to previous project descriptions. To inform these discussions, districts will require all of the material required for Step 1.

2) Site Investigation – Information collection is completed if required to fill in the potential effects matrix, assess impacts, and develop mitigation options.

- 3) Impact assessment and mitigation – Xeneca to present additional work completed to date and staff to comment on assessment of impacts and proposed mitigation. To inform these discussions, districts will require in advance:
- Updated existing condition reports, updated overlay maps of anticipated ZOI and existing features
 - A table in advance summarizing potential effects identified and Xeneca’s assessment of impacts and proposed mitigation
 - Rationale for scope of site investigation to date within ZOI boundary

4) Draft environmental report – Districts have opportunity to review and provide comment before finalizing

Please let me know what you think. I’d be happy to have a teleconference on Wednesday to discuss. Have a nice long weekend.

Regards,
Christine

Christine Greenaway
 A/ Renewable Energy Coordinator
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 Ontario Ministry of Natural Resources
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 Fax: (705) 235-1246
 Email: Christine.Greenaway@Ontario.ca

DRAFT-DRAFT-DRAFT v2

Proposed Approach – Assessment of Downstream Zone of Influence for Small Waterpower Projects with Variable Flow due to Modified Run-of-River Operation

April 16, 2012

Purpose:

This document outlines a proposed approach for assessing the downstream Zone of Influence (ZOI) related to variable flow.

Background:

The FIT program strongly encourages facilities to provide more power when demand by electricity customers is high, weekdays from 11 am to 7 pm eastern standard time. Facilities that can provide this electricity system benefit receive a financial incentive and additional score points for priority access to the FIT program. Most of Xeneca's projects are proposed to operate in this manner. Xeneca refers to this type of operation as "Modified Run-of-River".

Modified Run-of-River operation tries to shift some of the daily production to the 11 am to 7 pm timeframe on weekdays. To the extent possible, some water is stored in the headpond and then used for additional production from 11 am to 7 pm. The total water volume released from the facility each 24 hour period equals the natural inflow to the headpond during the 24 hour period.

During high and moderate flows, the facility runs continuously but some output is "shifted" to the preferred hours. During lower flows, when there is not enough water to operate continuously in an efficient manner, operation becomes "intermittent". Intermittent operation involves shutting off the turbine for several hours each day to permit partial operation each day. While the facility is shut off, environmental flows are released to mitigate habitat impacts downstream.

Modified and intermittent operation causes the downstream flows and levels to vary throughout the day. The variability in flow migrates down the river and affects downstream flows from this point forward in the river system. The amount of variability attenuates (ie. becomes less noticeable) the further away it migrates. Depending on the river morphology encountered downstream, the variability will eventually attenuate back to the average inflow upstream. Any downstream tributaries and confluences with other rivers will further attenuate the variability.

MNR and MOE have requested that Xeneca assess the downstream “ZOI” for each project resulting from variable flows related to Modified Run-of-River operation. This document outlines the proposed approach to define and assess the downstream ZOI.

Proposed Approach:

It should be recognized that the downstream ZOI differs from the upstream ZOI in several important ways:

- Downstream impacts can typically be mitigated through facility operation, whereas upstream impacts are tied to the project footprint (eg. inundation and change of habitat in the headpond area is inherent to the project). Assessment should therefore focus on mitigation of potential impacts on downstream features while preserving the benefits to the electric system to the greatest extent possible.
- The variability in flow will attenuate with distance away from the facility. It can be safely assumed that the greatest variability in flows and levels occurs immediately downstream of the facility. Hence, an operations strategy used to mitigate an impact on a feature (e.g. minimum flow provided to a fast water area with potential for spawning habitat) should address not only the closest fast water feature, but all subsequent features of the same type.
- The type of mitigation corresponds in time and duration to the feature. For example, minimum flows provided to mitigate potential impacts on spawning activity would be provided when the activity is most likely to occur, thereby allowing the water to be used for electricity generation the rest of the time.

Based on the above, the overall approach to downstream ZOI should focus on mitigation related to specific downstream features using flows and levels. To achieve this, features of potential impact need to be identified and specific mitigation strategies need to be developed.

To assist in the assessment process and to inform the meaningful calculation of flows and levels, hydraulic modeling can be used. Purpose of the modeling should be to inform how velocity, wetted perimeter and water depth might change at specific downstream features due to variability in flows and levels.

Assessment Process:

The following steps are proposed to assess the downstream ZOI and to develop mitigation strategies in a way that is specific to the downstream features:

- 1) Feature Identification: A desktop review of Google Maps for a distance of 30 km downstream to identify important features, including potential fast water habitat, wetland habitat, major water users, land owners and/or tributaries/confluences.

- 2) Feature Assessment: A preliminary qualitative assessment of each feature to assess if it might be significantly negatively affected by variability in flows and levels, and if this affect would occur at specific times or under specific conditions.
- 3) Feature Confirmation (optional): An optional field study to confirm or deny the existence of the feature. Where no field study is done, it shall be assumed that the feature identified in the desktop review exists (worst case assumption).
- 4) Effects Calculation (if required): A hydraulic analysis shall be carried out to determine the approximate range of flows and levels expected at the feature are likely to cause a significant negative effect. A screening analysis can be carried out with a 1-D HEC-RAS model in steady state mode for this purpose (worst case).
- 5) Additional Effects Analysis (optional): Optionally, a more detailed hydraulic analysis to determine if the variability effect is sufficiently attenuated by the time it reaches the feature to make further mitigation unnecessary.
- 6) Mitigation Strategy: A mitigation strategy shall be proposed where the above steps show that the feature would be significantly negatively affected.
- 7) Consultation: Where a significant negative effect is expected on a feature, the feature, the expected effect and the proposed mitigation shall be included in the Environmental Report (ER).

Discussion:

The above approach is intended to be conservative by assuming that a feature or an effect exists unless it is determined otherwise. The approach is also intended to be pragmatic by being cost effective to execute. The user has the option to minimize the amount of study and analysis if it is determined that the mitigation is more cost effective than the study.

The desktop study is limited to 30 km to reflect the following rationale:

- 1) Small waterpower projects (under 10 MW) have limited economic potential and must be executed cost effectively. It is more cost effective to start the analysis with a desk top assessment than to start with an unsteady state hydraulic model covering an initially unknown distance. It is assumed that significant attenuation occurs within 30 km as the rivers under study are typically flat (except for short fast water sections identified in the features assessment).
- 2) A full aquatic or terrestrial baseline assessment of the downstream ZOI is not required. The maximum flows involved in modified operation are near the long term average flows, occur within the existing channel, and never involve overtopping river banks. The minimum flows are set as part of the mitigation strategy depending on the features identified in the assessment. The fluctuations from minimum to maximum occur in a range (i.e. low end of flows) that is not a concern of river bed erosion (i.e. lower end of river flow range, transport energy and erosion effect). Aquatic assessment is needed only where mitigation strategies are not possible.

Ontario Ministry of Natural Resources

Field Data Collection for Waterpower Projects

DRAFT - June 3 2010

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DRAFT - June 3 2010

1.0 Introduction

This document is intended to provide interim technical guidance from the Ministry of Natural Resources (MNR) to MNR District offices and project proponents regarding potential field baseline ecological data collection related to waterpower projects for the 2010 field season. This guidance applies to those elements of a waterpower project that are subject to environmental assessment (EA) and will require approval under the Lakes and Rivers Improvement Act (LRIA).

The guideline has been prepared considerate of the fact that many waterpower projects are now or may soon be participating in the Feed-in Tariff program (FIT). In addition, the guidance recognizes the OWA Class Environmental Assessment for Waterpower Projects (Class EA) as the primary planning and public engagement framework for waterpower proposals. Importantly, both the FIT commercial operation dates and the Class EA target timelines provide for a data and information collection program premised on one (1) or two (2) field seasons. As such, it is imperative that the information collected is directly relevant to the individual project, as scoped by the proponent in consultation with the regulatory agencies involved.

Consistent with the Class EA, proponents are ultimately responsible for determining the required ecological data collection requirements with consideration being given to available existing information and advice provided by the MNR. Proponents should expect to receive such information in the form of a site information package (SIP) provided by MNR during the site release process. Proponents are also responsible for scoping the data collection requirements to suit the project, and the needs of a specific site (ie. data and information gaps).

This document provides a summary of the types of study that are available to address project specific requirements. Not all projects will require the same level of data collection, and therefore it is not envisioned that all of the studies described in this document would be needed for every project. Rather, this document provides a checklist of sorts to aid the reviewer in ascertaining the specific study needs on a site by site basis. This document does not provide guidance regarding data collection methodologies, data assessment, effects assessment, specific requirements of approval, and/or effectiveness monitoring stages of a project, however it is recognized that sufficient baseline information needs to be collected to enable meaningful assessment of environmental effects and mitigation success. In addition, this document has been scoped to the mandate of the Ministry of Natural Resources, and does not necessarily represent all of the data and information collection that may be undertaken by the proponent to address other agency requirements.

Finally, this guidance is not intended to be retroactively applied to projects that have already undertaken project-specific data collection through the Environmental Assessment process.

2.0 Coordination

The planning and development of a waterpower project in Ontario can involve multiple legislative requirements. In many cases, such legislation has similar objectives and process requirements, providing for the consideration of the effects of the proposed project on the environment and ensuring that interested parties have an opportunity to participate. A key objective of coordinating information/data collection and approval processes is to achieve an efficient process where required information is identified at the beginning of a project, so that one program of data and information collection can be designed and carried out. To the extent possible, this guidance has been designed to allow for proponents to coordinate common data and information collection elements, as relevant to the specific project. Proponents should refer to the Class Environmental Assessment for Waterpower Projects, OWA, Oct 2008, in addition to this guidance. Figure 1 illustrates the potential relationship between the OWA Class EA and decision-making pursuant to the LRIA.

3.0 LRIA Approvals

All new or redeveloped waterpower facilities that involve construction of a dam, or modification to a dam require approval under Section 14 (construction of a new dam) or Section 16 (alterations, improvements, or repairs to an existing dam) of the LRIA. Projects which require approval under Section 14, are subject to a two-part review and approval process. The first part is the Location Approval, which is issued under the Lakes and Rivers Improvement Act for a new dam or a change to the footprint of an existing dam. Where a project is subject to environmental assessment, Location Approval will not be granted until the EA has been successfully completed (ie. statement of completion). In keeping with a coordinated approach, it is recommended that all requirements of the LRIA be considered prior to and throughout the EA process.

Once a project receives Location Approval, or where a project does not require Location Approval, the second part is the review and approval of Plans and Specifications for the design, construction, operation and maintenance of the waterpower facility (i.e. engineering detail). Construction cannot begin until the plans and specifications approval has been granted by the Ministry. The guidance herein is primarily focused on the incorporation of Location Approval considerations through the EA process. Given that the Class EA positions the proponent for Location Approval, the extent of engineering required for Location Approval is considered conceptual with design details being advanced only to the level required to properly predict impacts and develop mitigation for those impacts. Additional information with respect to subsequent Plans and Specifications approvals is contained in the Lakes and Rivers Improvement Act , Guidelines and Criteria for Approvals and supporting procedures.

Proponents should note that there are instances (ie. where a Fisheries Act authorization is required) where the Ministry cannot issue Location Approval and/or Plans and Specifications Approval until approvals have been received from relevant Federal agencies. Early consultation with potentially affected federal agencies is encouraged in the Class EA.

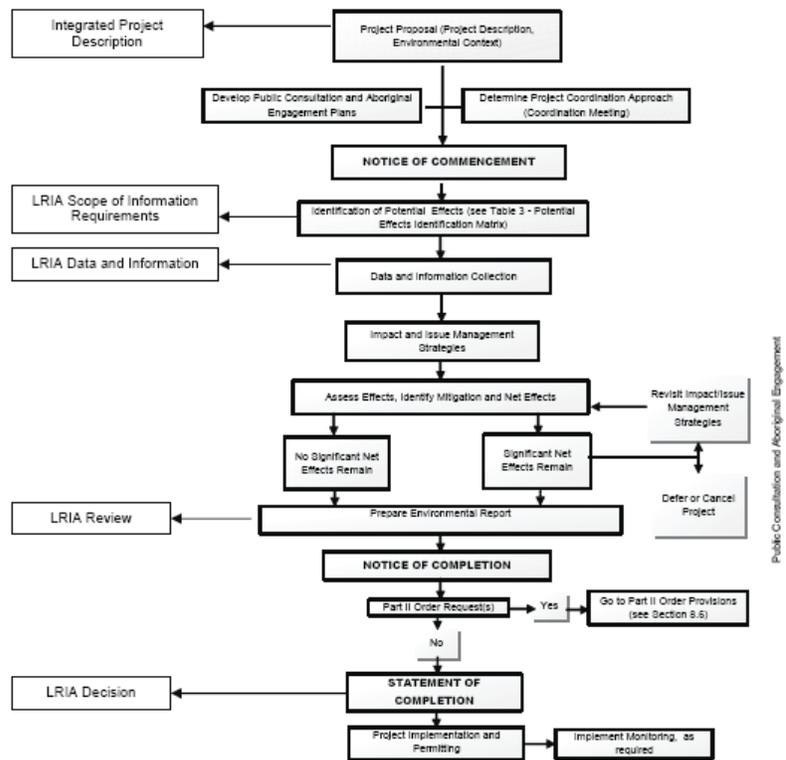


Figure 1. The graphic outlines the potential relationship between the OWA Class EA and Location Approval decision-making pursuant to the LRIA

4.0 Ecological information

Both the environmental assessment and LRIA review and approval processes will require the collection of ecological information and data. The Ministry has responsibilities under the *Lakes and Rivers Improvement Act* (LRIA), the *Public Lands Act* (PLA), the *Endangered Species Act* (ESA), the *Environmental Bill of Rights* (EBR), and the Ministry's *Statement of Environmental Values* (SEV), when reviewing and approving waterpower projects. Among these is the requirement to consider the purposes of the LRIA which provide for;

- (a) the management, protection, preservation and use of the waters of the lakes and rivers of Ontario and the land under them;
- (b) the protection and equitable exercise of public rights in or over the waters of the lakes and rivers of Ontario;
- (c) the protection of the interests of riparian owners;
- (d) the management, perpetuation and use of the fish, wildlife and other natural resources dependent on the lakes and rivers;
- (e) the protection of the natural amenities of the lakes and rivers and their shores and banks; and
- (f) the protection of persons and of property by ensuring that dams are suitably located, constructed, operated and maintained and are of an appropriate nature with regard to the purposes of clauses (a) to (e).

Ecological information that may be relevant to a project proposal includes:

- flows and levels required to support the perpetuation of fish and wildlife and other natural resources dependent on the water course;
- existence or maintenance for fish passage and fish habitat;
- riparian wildlife habitat
- the presence of any species or habitat protected under the Endangered Species Act, 2007
- wetlands
- hydrology
- sediment
- thermal regime
- water quality
- biological characteristics
- zone of influence of the proposed facility
- cumulative impacts analysis/assessment (if proposed dam is on a regulated system) or if multiple new projects are proposed on a river system

Table 3 of the Class EA provides an analytical framework through which the proponent may scope the potential project impacts thereby defining the determination of the ecological information requirements.

In some cases a two-stage information/data collection process may be applied by the proponent, consisting of a coarse screening, which may consist of ‘desktop’ analysis, secondary data sources or field sampling, followed by a fine screening which may involve additional, or more detailed field sampling and monitoring.

It is the proponent’s responsibility to scope the data and information collection appropriately, considering the best information available. The extent of field work should be scoped appropriately, in order to collect sufficient information about the existing potentially impacted values at the site (and the potential zone of influence) and to allow for impact analysis or future monitoring. The proponent will also consider in their scoping the agency coordination meeting, the site information package, response to the Notice of Commencement, and initial advice from the public. Data collection is often specific to seasons and may occur over several months, and extend throughout the environmental assessment process. The identification of those environmental components that could be affected either directly or indirectly by the project should drive both the data to be collected and the seasonality of its collection. This identification of potential effects is facilitated by the Potential Effects Identification Matrix from the Class Environmental Assessment for Waterpower Projects, an excerpt of which is provided below.

Criteria	Potential Level of Effect						Comments, Rationale
	-H	-L	Nil	Unk	+L	+H	
General Natural Environment Considerations							
Air quality, including GHG Offsets							
Water quality or quantity (surface water)							
Water quality or quantity (groundwater)							
Species at risk and their habitat							
Significant earth or life science features							
Land subject to natural or human-made hazards							
Terrestrial wildlife (including numbers, diversity and movement of resident or migratory species)							
Natural vegetation and terrestrial habitat linkages							
Soils and sediment quality							
Significant natural heritage features and areas							
Other (specify)							

Figure 2. Natural Environment portion of the Potential Effects Identification Matrix under the Class Environmental Assessment for Waterpower Projects; Each criterion should be prefaced with the phrase: “*This project has the potential to affect...*”

4.1 Detailed Descriptions of Key Ecological Information

The following sub-sections are intended to provide additional, more detailed, advice to proponents regarding baseline data and information collection, subject to scoping as previously described.

Data collection should focus on the zone of influence, the area where the proposed alteration in physical criteria is discernible from natural conditions. Professional judgement is required by the proponent to select the suite of key components that encompass the diversity of habitat and biota at the site and reflect other social and economic values (e.g. sport fish, species at risk).

4.2 Zone of Influence

The geographic range for the collection of field data should consider the zone of influence for the proposed development as well as the specific guidance provided in the following sub-sections. It should also be noted that geographic range may vary for each potential effect of the project.

In the context of water power development, the zone of influence can be defined as the area which will vary spatially and temporally in response to the dynamic processes and lag times associated with any hydro project. The extent of the zone of influence could include both upstream and downstream lengths of river and could include connected lakes and rivers, wetlands and the riparian lands and would therefore be the areas on the landscape and watershed where a significant measurable effect can be detected as a result of a dam and its operations. Typically, these considerations include, but are not necessarily limited to: inundated areas (headponds/reservoirs), downstream areas affected by flow alterations, the dam footprint itself (e.g., dam infrastructure), associated transmission corridors and areas required for supporting infrastructure (eg. Access roads), etc.

Predicting the zone of influence for a new development can be very difficult and subjective. The zone will vary spatially and temporally depending upon the degree of alteration (e.g. peaking facility with a hypolimnetic draw versus run-of-the-river with a metalimnetic draw), river type (e.g., large versus small river), river characteristics (e.g., many tributaries downstream versus few) and geomorphology (e.g., bedrock versus alluvial). An assessment should be conducted based on the proposed degree of alteration from the natural condition. Regulated rivers may no longer experience the infrequent flood, such as the Regulatory flood, therefore the boundary for the Regulatory flood may also be considered in determining the zone of influence. Upstream zone of influence may consider the proposed level of flooding, areas accessed by migratory fish including upstream tributaries, or an existing dam. It is the proponents' responsibility to determine the potential zone of influence (i.e. project scope) under the Class EA.

4.3 Biological Characteristics

To assess the effects of waterpower development on the existing biological characteristics, an approach is needed which incorporates assessment of project – relevant components of the biological community, which may include primary production, benthic invertebrates, and vertebrates including fish and other wildlife.

As appropriate to the project scope, the field data collection program should consider collection of the following information;

Fish Community

- Fish Community - survey of all fish species present at the site
- Species at Risk (SAR) – presence and abundance of any SAR and their habitats within the zone of influence
- Fish Migration and Spawning – survey of the location, extent and quality of spawning areas, including migration routes to and from spawning areas
- Fish Habitat Composition – survey and assessment of the existing aquatic habitats represented, with consideration to the structural characteristics of the habitat, species usage, and sensitivity to any proposed change in water levels and/or flows
- Fish Species of Interest (i.e. determined indicator species) – relative abundance for each species of interest (not limited to managed sport fish or known SAR)
- Fish Age Class Structure – relative abundance and proportion of age classes for each species of interest
- Fish Condition – Condition Factor (CF) of all species of interest sampled, and a small number of mature fish lethally sampled for Gonadosomatic Index (GSI) and Hepatosomatic Index (HSI) (may only be applicable where project timelines provide an opportunity for multiple years (ie. >2 yrs) sampling)
- Fish Contaminant levels – existing fish total mercury levels, and existing MeHg, PCB, dioxin, heavy metal concentrations in fish tissue (may apply where a new reservoir is being developed, or existing reservoir expanded)

Benthic Invertebrates

- Invertebrate Community Composition – identification and abundance of invertebrate families present at the site
- Species at Risk – identification and abundance of any SAR (ie. mollusc) at the site
- Invertebrate Predators – current proportion at the site

Riparian Vegetation Community

- Riparian Ecosite type – determine existing riparian ecosite type

- Riparian Vegetation community composition – determine riparian vegetation community (species and relative abundance of counts of percent cover) at the site
- Riparian Condition – proportions and species of flood intolerant and wetland obligate species present at the site

Primary Production

- Chlorophyll a – concentration of Chlorophyll a present at the site (may apply where a new reservoir is being developed, or existing reservoir expanded)
- Aquatic Macrophytes – major types of macrophytes present, relative amount of cover at the site

4.4 Thermal

Subject to the scoping previously described, it may be necessary to characterize the existing thermal regime through undertaking a continuous log of water temperature monitoring upstream and downstream of the proposed facility to allow for the examination of seasonal trends as well as the frequency and duration of temperature extremes.

4.5 Sediment

This section discusses some of the important components of the sediment regime, focusing on the field data collection components fluvial geomorphology, suspended sediment, and the bed –material load of the river on which the proposed waterpower site is located. As appropriate to the project scope, the field data collection program should consider the following;

- a fluvial geomorphology investigation/survey including; channel sinuosity, entrenchment, planform width-depth ratio, in channel features (bedforms, riffles, cascades/falls, large woody debris), bankfull stage/width/depth, sediment sampling/sizing upstream and downstream of the proposed site , and channel bank conditions
- Collect suspended sediment at the proposed site, during a spring freshet, capturing the high annual flows (only relevant if an erosion problem is anticipated or the project is located in an erosion sensitive area). A minimum of two (2) measurements is recommended during the freshet. In addition, collect suspended sediment seasonally, at least four (4) times is recommended.
- Investigate bedload sediment transport downstream of the proposed site, and at the upstream end of the zone of influence.

4.6 Hydrology

In many waterpower projects, the range of water levels and flows associated with a proposal may be utilized in the context of impact and/or issue mitigation. For example, fish species may require the provision of certain flows at certain times to support spawning. Similarly, there may be social and/or economic considerations that could be addressed through water levels. At a project level, the determination of the relevance of flows and levels will be made considerate of the identified potential impacts.

Key components of a river's flow regime that may be relevant to impact and issue management include;

- baseflow,
- bankfull flow,
- riparian flow,
- and the rate of change of flow.

The proponent may use a variety of tools to characterize these key components and analyse the degree of impact on the potentially impacted values that may be addressed through the proposed water levels and flows. As relevant to the project, characterisation of the variability in these indicators can be achieved by analysing their magnitude, duration, frequency, timing, and rate of change. A similar characterisation of the variability in water level regimes is used to understand and evaluate alteration to water level regimes in lacustrine environments related to reservoirs.

Proposed Approach to Assessing the Downstream Zone of Influence: MNR Response to Xeneca

June 29, 2012

Background

The following comments and advice were prepared by MNR staff in response to Xeneca's submission of the document entitled "*Proposed Approach – Assessment of Downstream Zone of Influence for Small Waterpower Projects with Variable Flow due to Modified Run-of-River Operation*".

Xeneca's submission of this document followed an April, 2012, meeting with MNR and MOE regarding the Chutes project. At this meeting an action item was identified for Xeneca to propose an approach to articulating the downstream Zone of Influence (ZOI) for all of its projects. The proposal received from Xeneca focuses on an approach to assessing and mitigating impacts within an arbitrary distance of each dam without articulating a total ZOI. Both articulating the boundary and assessing impacts within the boundary are valid topics to be addressed.

In this response the MNR provides comments on:

1. MNR's mandate as it pertains to the scope of this proposal;
2. a suggested approach to articulating the ZOI boundary that will support MNR's decision making process; and
3. how Xeneca's proposed approach to impact assessment and mitigation within the ZOI compares to MNR's requirements for review of projects in accordance with its mandates.

General Comments

During the joint agency review it was observed that Xeneca's submission proposes a general approach to completing an environmental assessment within a downstream zone of influence (ZOI), but with a focus on the identification and impact assessment of a few selected features, most of which fall within MNR's mandate. It was interpreted that the proposed approach was not designed to address the interests and mandates of all permitting and approving agencies and the full suite of potential effects identified for consideration in the Ontario Waterpower Association's Class Environmental Assessment for Waterpower Projects (Class EA).

This response from MNR specifically addresses Xeneca's proposed approach as it relates to MNR's mandate under the Lakes and Rivers Improvement Act (LRIA), the Endangered Species Act (ESA) and some other pertinent legislation. The MOE is preparing a separate response to the proposal as it relates to the Class EA process. Although they are separate responses, the MNR response builds off of the MOE response, and they are intended to be considered together.

We have several high-level considerations that we would like to identify up front:

- The MNR will require an understanding of the total anticipated ZOI boundary, the proposed system alterations within that boundary relative to reference conditions, and the associated impact assessment, when making decisions in accordance with its legislation.
- It is also necessary that the above information be used as the basis for conducting Aboriginal consultation and any public consultation that is completed to satisfy MNR's requirements.
- Key components including flow, biology (fish, wildlife and their habitats), sediment, temperature and water quality are used to delineate the ZOI and guide sampling and monitoring activities.
- Quantitative models should be used as tools to help characterize the downstream ZOI and are not the sole determinants of the downstream ZOI boundary.
- Any uncertainty around the extent of the anticipated ZOI due to modelling constraints at Greenfield sites during the planning phase should be addressed through a commitment to post-construction effects monitoring.
- By limiting the scope of the potential effects and impact assessment to the first 30 km downstream of a proposed dam you may not acquire sufficient information for MNR to make decisions under its legislation. Some zones will extend beyond 30 km.
- Similarly, by limiting the scope of the assessment to potential fast water habitat, wetland habitat, major water users, land owners, and/or tributaries/confluences, or simply to any features observed from Google Earth imagery, you will likely not acquire sufficient information for MNR to make decisions under its legislation.
- Sufficient baseline information needs to be collected to enable meaningful assessment of environmental effects and mitigation success.
- At a minimum, a qualified consultant should complete a reconnaissance of the total anticipated ZOI to assess habitat features and determine where additional site investigation may be required to confirm species presence, habitat use, ecological condition or geometry and to provide the information required for an assessment of effects and the development of mitigation opportunities.
- With respect to mitigation, hydraulic modelling is but one piece to be considered within a more comprehensive decision process. Sound field data are still required to characterize the features that are proposed to be altered and to assess impacts.

1.0 MNR's Mandate as it Pertains to the Scope of Xeneca's Proposal

When reviewing applications for approval of dam location, design or operations, the MNR will ensure that decisions are consistent with the purposes of the Lakes and Rivers Improvement Act (LRIA), and will consider other legislation including, but not limited to, the Endangered Species Act (ESA), Fish and Wildlife Conservation Act (FWCA), Public Lands Act (PLA) federal Fisheries Act, Migratory Birds Convention Act (MBCA) and Navigable Waters Protection Act (NWPA). Site-specific fisheries management and other management objectives will also be considered and incorporated into the decision-making process.

The purposes of the LRIA are to provide for,

- (a) the management, protection, preservation and use of the waters of the lakes and rivers of Ontario and the land under them;
- (b) the protection and equitable exercise of public rights in or over the waters of the lakes and rivers of Ontario;
- (c) the protection of the interests of riparian owners;
- (d) the management, perpetuation and use of the fish, wildlife and other natural resources dependent on the lakes and rivers;
- (e) the protection of the natural amenities of the lakes and rivers and their shores and banks; and
- (f) the protection of persons and of property by ensuring that dams are suitably located, constructed, operated and maintained and are of an appropriate nature with regard to (a) to (e) above.

The MNR is also accountable for ensuring that its Statement of Environmental Values (SEVs) under the Environmental Bill of Rights is considered when making decisions on instruments that may significantly affect the environment.

The MNR will require an understanding of the total anticipated ZOI boundary, as well as proposed system alterations within that boundary, when making decisions in accordance with its legislation. It is also necessary that this information be used as the basis for conducting Aboriginal consultation and any public consultation that is completed to satisfy MNR's requirements.

2. Articulating the Downstream ZOI : A Suggested Approach that will Support the MNR Decision-Making Process

Xeneca's proposal focuses on the use of hydraulic modelling to assess impacts on selected features within 30 km downstream of each proposed site, and does not appear to focus on articulating the full downstream ZOI boundary. The total ZOI may in fact extend greater than or less than 30 km downstream, depending on the river and the proposal.

If information about the full extent to which the system will be altered is not made available for agency review and/or public and Aboriginal consultation it will be difficult for MNR staff to determine if the project is consistent with the purposes of the various pieces of legislation we are responsible for. For example, when considering applications under the LRIA, MNR staff will need to understand whether the post-development conditions will continue to provide for the protection of public rights and the interests of riparian owners. Therefore, it is expected that the public and riparian owners will have the opportunity to observe and consider the implications of the project within the entire ZOI. The MNR will also have to meet the Crown's duty to consult with and/or accommodate Aboriginal communities. We review applications for ecosystem-based water level and flow objectives that will support the ecological sustainability of aquatic systems for the perpetuation of fish, wildlife and other natural resources dependent on the aquatic system, and consider whether the project will require an authorization under the ESA. All of these considerations require full clarity from Xeneca on the total extent to which the river system is proposed to be altered.

Below we clarify our view on the scope of the term "total ZOI" and describe a suggested approach to articulating the downstream portion of the total ZOI that will help support MNR in the decision-making process for Xeneca projects.

2.1 Zone of Influence Definition

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.

This is consistent with previous messaging on the ZOI provided through various EA Coordination meetings and a joint MNR/MOE Director's letter to Xeneca dated July 22, 2011. This letter noted that key components including flow, biology (fish, wildlife and their habitats), sediment, temperature and water quality are used to delineate the ZOI and guide sampling and monitoring activities.

In the aquatic environment, the MNR considers the ZOI to extend to where the alterations in physical, chemical and biological processes are not discernable from natural variability. This may include connected lakes and rivers, wetlands, and riparian lands where a significant measurable effect can be detected as a result of a dam and its

operations. Specific indicators can be selected to assess how the proposed future state compares to the reference state to confirm the anticipated geographic extent of influence, as part of a proponent's field program.

2.2 Determining the Anticipated Downstream Zone of Influence

There is no single formula for determining the anticipated total ZOI that can be ascribed to all situations.

In some cases, it might be possible for the proponent and all agencies to reach a consensus on the extent of hydrologic influence (often referred to as the downstream hydrologic ZOI or variable flow reach) based on an overall assessment of the watershed. An example would be if the downstream ZOI is expected by all parties to end at a receiving large river or lake, or an existing dam. For the purpose of articulating and communicating the anticipated boundary to satisfy MNR's needs with respect to the LRIA, this approach to articulating the hydrologic component of the downstream ZOI will likely suffice, if consensus has been reached. Proponents should consult with the MOE to confirm an approach that satisfies the Class EA and other agency considerations.

Quantitative models can be used to help predict the downstream zone of influence based on a dam's design and operation. Many of these models require knowledge of physical and chemical processes e.g., flow and thermal regime, to generate predictions about the ZOI.

Hydraulic modelling in the unsteady flow state can be a useful tool to predict the geographic extent of potential downstream changes to flows and water levels where peaking operations are proposed (i.e., the downstream hydrologic ZOI). Though there may be some uncertainty with data output, it provides a new set of predicted information that can be combined with other considerations to help inform our understanding of the total downstream ZOI. Hydraulic modelling will also be useful for the impact assessment phase of planning a waterpower project.

Recognizing that all models have some degree of uncertainty and that there are specific challenges associated with modelling proposed peaking conditions at Greenfield sites that may result in additional uncertainty, output should be accompanied by the results of calibration and validation, a sensitivity analysis, full disclosure of the model limitations, and a commitment to post-construction effects monitoring. We suggest that MNR and MOE hydrology staff should be engaged in model review.

After modelling downstream hydraulics, the predicted downstream hydrologic ZOI and its potential uncertainty should be considered along with potential changes to the temperature, sediment, and water quality regimes. If these extend beyond the hydrologic ZOI then the total anticipated ZOI boundary should be extended accordingly. The anticipated ZOI should be further refined to consider the other biological effects such as the potential for the dam to block fish movement. MNR biologists and other MNR and

MOE technical staff should be engaged in these discussions and will consider information on existing conditions. As the project is further defined and new information about existing conditions is acquired, the extent of the anticipated ZOI may be readdressed.

Any uncertainty around the extent of the anticipated ZOI due to modelling constraints at Greenfield sites during the planning phase should be addressed through a commitment to post-construction effects monitoring.

2.3 Seeking Early Consensus on the ZOI

Seeking agreement on the total anticipated ZOI with all agencies early in the EA and regulatory process is important to ensure that impacts are evaluated, mitigated and consulted on within an appropriate geographic extent and within a suitable timeframe. Any comments received from the MNR regarding permit and approval requirements, including the identification of information gaps and potential effects that need to be explored to inform the LRIA application, may be scoped to the anticipated ZOI identified by the proponent at that time. If the ZOI changes as the project is further defined, the MNR may identify additional information or consultation requirements to support its decision-making. This can result in project delays for the proponent.

3. Assessment of Features Within the Downstream ZOI

When making decisions in accordance with the LRIA , MNR staff will generally seek to understand:

- what the reference system looks like within the total anticipated ZOI (physical, chemical, biological characteristics);
- how those characteristics will change with the planned development;
- whether and how the expected changes can be mitigated;
- what the system looks like after the alteration; and
- whether approval of the final project proposal will be consistent with the purposes of the LRIA and other interests as described in Section 1.

Similarly, as part of the Class EA process to satisfy MOE, proponents are required to identify potential effects and fill outstanding information gaps (Project Definition phase), and then ensure that all potential impacts are identified, assessed and mitigated (Project Assessment phase) prior to finalizing the Environmental Report and posting the Notice of Completion (Project Documentation phase).

It is expected that a proponent of a Greenfield waterpower project will collect and assess information through preparation of its Environmental Report that will meet the needs for MNR's subsequent review and approval of the project under applicable legislation. Data and information collection can be designed and carried out in a coordinated manner within the EA process. The findings can be presented in a single body of documentation

that supports decision-making under relevant legislation and minimizes delays for proponents at the permits and approvals stage.

Xeneca's downstream ZOI assessment proposal identified several steps that can indirectly be related back to the Class EA process. We recommend that the full Class EA process be followed for any area that may be affected by a proposed waterpower project, including the downstream ZOI and extensions to the downstream ZOI. For clarity and ease of reference we have framed our response to your proposal within the context of the Project Definition and Project Assessment phases of the Class EA process, while identifying considerations specific to MNR's mandate.

3.1 Project Definition Phase

The first three steps in Xeneca's proposal can be related back to the "Project Definition Phase" of the Class EA process. In these steps Xeneca proposed to: 1) complete a desktop review of Google Maps for a distance of 30 km downstream from each site to identify specific features; 2) complete a qualitative assessment of potential impacts to these features, and 3) complete an optional field study to confirm or deny the existence of the feature.

With respect to MNR's permitting and approval requirements, we have identified a few concerns around the geographic scope and the selection of features for assessment.

3.1.1 Geographic scope of assessment

By limiting the scope of the assessment to the first 30 km downstream of a proposed dam you may not acquire sufficient information for MNR staff to make decisions under its legislation. The MNR will require an understanding of proposed system alteration within the total anticipated ZOI boundary when making decisions on permits and approvals. The ZOI may be greater than or less than 30 km downstream, depending on the river and the proposal.

A desktop exercise can not be relied on to adequately scope information gaps, potential effects, and areas that require additional field investigation to satisfy the LRIA and ESA. At a minimum, a qualified consultant should complete a reconnaissance of the total anticipated ZOI to observe features of relevance and to determine where more intensive site investigation may be required to understand ecological condition, confirm species presence and habitat use, assess the sensitivity of features, and gather other information required to inform impact assessment and mitigation discussions. A records review should also be undertaken by the proponent for the entire ZOI.

It is expected that proponents will provide rationale where it determines that detailed site investigations are not required. We suggest this be discussed with district staff early in the EA and regulatory process in case assessment is considered insufficient to support decision-making.

3.1.2 Selection of Features for Assessment

The proposed approach identified the following features of interest: potential fast water habitat, wetland habitat, major water users, land owners, and/or tributaries/confluences. By limiting the scope of the assessment to these features or any features that can be observed from Google Earth imagery, you are unlikely to acquire sufficient information for MNR to make decisions under its legislation.

When considering applications for approval under the LRIA, MNR will require an understanding of the degree to which the system is proposed to be altered relative to a reference condition. MNR will consider the potential effects on the hydrologic, thermal and sediment regimes, as well as the biology. Flow is generally considered the dominant variable that determines form and function of a river. MNR will consider how the pattern of flow is proposed to change, including the magnitude, frequency, duration and timing (seasonality) of occurrence of various environmental flows, as well as the rate of change from one flow magnitude to another. We suggest that proponents consider all of these components when assessing potential impacts of their projects and preparing their application for LRIA approvals. How these alterations affect our ability to meet the purposes of the LRIA and other interests identified in Sections 1 will be considered.

From an ecosystem perspective, MNR will review LRIA applications associated with dams to ensure applicants provide for ecosystem-based water level and flow objectives that will support the ecological sustainability and biodiversity of aquatic systems for the perpetuation of fish, wildlife and other natural resources dependent on the system. This requires an understanding of the current ecological condition. MNR will also consider effects to existing fish passage, wetlands, species at risk or their habitat, wildlife habitat, and cumulative effects.

The attached document entitled “*OMNR Field Data Collection Requirements for Waterpower Projects* (draft, May 2010)” provides interim technical guidance to MNR District offices and project proponents regarding potential field baseline ecological data collection related to waterpower projects. Section 4 provides detailed advice to proponents regarding the types of study that are available to address project specific requirements.

The attached document recognizes that not all projects will require the same level of data collection, and therefore it is not envisioned that all of the studies described in this document would be needed for every project. Rather, this document provides a checklist of sorts to aid the reviewer in ascertaining the specific study needs on a site by site basis. It is recognized that sufficient baseline information needs to be collected to enable meaningful assessment of environmental effects and mitigation success.

The attached document also recognizes that to assess the effects of waterpower development on the existing biological characteristics, an approach is needed that incorporates assessment of project-relevant components of the biological community,

which may include primary production, benthic invertebrates, and vertebrates including fish and other wildlife.

To satisfy the ESA when considering an application for approval under the LRIA, the MNR will expect that the total anticipated ZOI has been surveyed and assessed to determine if protected species or habitat are present, associated impacts and management strategies have been considered, and the appropriate steps have been taken to avoid a contravention of the ESA.

There are a number of tools available for evaluating the significance of wetland and wildlife habitat that can be provided upon request. While identification of significance is not a regulatory requirement for waterpower projects, the tools may still be useful for understanding existing form and function which will help to predict sensitivity to impacts. The Ontario Wetland Evaluation System provides an approach to identifying the important structure, composition and functional components of a wetland that may be impacted by dam operations or construction. The Significant Wildlife Habitat Technical Guide provides an approach to assessing the significance of wildlife habitat identified through the field investigation. Draft significance criteria schedules for Eco-Regions 3E, 5E, 6E and 7E are now available for interim use.

MNR must also protect natural amenities when making decisions under the LRIA. To satisfy this purpose, an inventory and assessment of natural amenities should be conducted within the total anticipated ZOI. Natural amenities are areas of streams, rivers, and lakes that can be used and enjoyed by the public and riparian owners and include beaches, vegetation, trees, unique physical features, scenic areas, areas for swimming, areas for canoeing and boating, and areas for fishing. The natural amenities may be a feature of the water, the bed, or the shores and the banks. Natural amenities on shores of lakes and rivers should not be destroyed or altered without a full evaluation of the trade-offs involved with evaluation of options for mitigation.

It is the proponent's responsibility to scope the data and information collection appropriately, considering the best information available. The extent of field work should be scoped appropriately, in order to collect sufficient information about the existing ecological condition and specific values within the anticipated ZOI and to allow for impact assessment or future monitoring. The proponent will also consider in their scoping the agency coordination meeting, the site information package, response to the Notice of Commencement, and initial advice from the public. MNR district staff will have shared available data as well as fisheries management objectives and any other site-specific management objectives.

Table 3 of the Class EA provides an analytical framework through which the proponent may scope the potential project impacts thereby defining the determination of the ecological information requirements. This can help inform the proponent's requirements for pursuing an LRIA approval. The Class EA states that where information is unavailable for the proposal it should be noted and, where the information is of significance to the proposal, the gap will need to be addressed. It is recommended that

the proponent consult with relevant federal and provincial agencies and municipal authorities, appropriately qualified persons, potentially affected and interested individuals and the public when completing the potential effects identification matrix.

3.3 Project Assessment Phase

The next three steps in Xeneca's proposal resemble steps in the "Project Assessment" phase of the Class EA process. In these steps Xeneca proposes to: 4) calculate effects by modelling hydraulics in the steady state mode to determine the approximate range of flows and levels expected at each feature; 5) optionally complete a more detailed hydraulic analysis to determine if the fluctuations are sufficiently attenuated, and 6) propose a mitigation strategy where required.

MNR's main concern with respect to this proposed approach as it relates to MNR's permitting and approval requirements is the sole use of modelling to assess impacts and consider mitigation.

3.3.1 Modelling approach to impact assessment and mitigation

We agree with your observations that the downstream ZOI differs from the upstream ZOI in several ways and that many downstream impacts can be mitigated through facility operations. While hydraulic modelling can be useful to inform and to perhaps illustrate potential effects under varying scenarios, model output still comes with some degree of uncertainty, particularly at Greenfield sites.

To assess how flow and level fluctuations might affect a feature or alter the system, biologists will need to understand the degree of uncertainty associated with the model output. Any report of model output should be accompanied by the results of calibration and validation, a sensitivity analysis, and full disclosure of the model limitations. The author's confidence in the model and rationale for its confidence should be stated, as well as an assessment of output uncertainty and how it relates to decision-making.

Steady flow analysis will not provide information on the range of flows and levels changed with distance and time. The preferred option is the more detailed hydraulic analysis to determine if the variability effect is attenuated (unsteady flow analysis).

With respect to impact assessment and mitigation, hydraulic modelling is but one piece to be considered within a more comprehensive decision process. Sound field data are still required to characterize the features that are proposed to be altered, comprehend their sensitivity, and assess impacts. Mitigation strategies should be considered in consultation with hydrologists, biologists, and other stakeholders. Modeling may not be the sole determinant for all mitigation options, and detailed site-specific information may be required to provide quality data input to the model.

Most features will require more than just high-level identification to properly assess how peaking will affect them and to have confidence in the effectiveness of proposed mitigation. For example, a fast-flowing riffle area or wetland may be observed from Google Earth, but how the proposed water volume fluctuations will modify the site-specific water levels and velocities will depend on the site-specific geometry and hydraulics.

It is agreeable that the variability in flow will attenuate with distance from the facility. Xeneca's proposal suggests that an operations strategy used to mitigate an impact on a feature (e.g. minimum flow provided to a fast water area with potential for spawning habitat) should address not only the closest fast water feature, but all subsequent features of the same type. This will likely be true in some cases, but not all. The extent to which spawning habitat suitability at a fast flowing riffle area will be affected by water volume fluctuations will depend on the feature-specific geometry and layout of suitable substrate. A minimum flow designed for the most upstream section of potential spawning habitat may not be as effective for another section of potential spawning habitat further downstream. If we knew which fast water features had the highest density of spawning activity, we could ensure that the operational mitigation strategy optimized habitat suitability at that feature.

Finally, any remaining uncertainty around the extent of impacts (e.g., anticipated water level fluctuations) during the planning phase should be addressed through a commitment to post-construction effects monitoring.

3.4 Project Documentation and Implementation Phases

In the final step Xeneca proposed that it would include significant negative effects and proposed mitigation in the ER.

We suggest that for transparency with respect to public and Aboriginal consultation requirements that satisfy MNR's needs under the LRIA, all potential effects (positive, negative, significant or not) be included in documentation that supports the LRIA application. MNR staff may use this information when reviewing applications and considering whether the project is consistent with the purposes of the LRIA. This is consistent with the information requirements for the Class EA Environmental Report.

The MNR acknowledges that the Class EA is proponent-led and the level of technical detail and precision proponents present in their Environmental Reports (ER) involves, in part, business decisions. Where proponents choose not to fully integrate their data and information collection that is required to make decisions on subsequent authorizations, the MNR decisions on these authorizations will be deferred until proponents provide the necessary data and information and any necessary additional consultation is completed.

Sent: June-06-13 2:51 PM
Subject: OWA Communication of MNR Field Data Collection Guidelines

From: Janelle Bates [<mailto:jbates@owa.ca>]
Sent: Monday, June 07, 2010 3:56 PM
To: 'Undisclosed Recipient'
Subject: OWA Members Communication Update

Ministry of Natural Resources Field Data Collection Guidelines

In early April, the MNR provided the Association with an opportunity to review and provide comment on a draft version of their *Field Data Collection Guidelines*. As such, the OWA developed an internal Field Data Collection Guidelines Task Team, comprised of subject matter experts, to review the guidelines and provide comment for consideration. Thank you to all for your contributions. Several key improvements have been made to the document which can now be viewed on the members only section of the OWA website www.owa.ca/members. It is our understanding that MNR will be formally approving this document later this month but in the meantime will be using this as interim guidance.

Renew Spring/Summer 2010

The Spring/Summer 2010 issue of *Renew* is now available for your reading pleasure on-line at www.owa.ca. This issue focuses on education, effective and efficient facility management, and the new era of waterpower development and redevelopment.

Endangered Species Act Framework Agreements Workshop

The OWA will be hosting an Endangered Species Act Framework Agreements workshop on June 29, 2010 at the Novotel Toronto Centre, 45 Esplanade, Toronto, ON. The OWA has planned this one-day workshop to provide the industry with additional information and a greater understanding of the requirements and opportunities associated with implementing the ESA.

Registration includes all workshop materials, continental breakfast, breaks and networking lunch.

Non-Member Registration

Registration: \$209.00 + GST

Member Registration

Registration: \$179.00 + GST

Deadline for registration is **June 24**. Don't miss out!

Register now! www.owa.ca

OWA Members Exchange Teleconference

The next OWA Members Exchange teleconference will be held on **June 8th**. This monthly call allows members to exchange advice and/or input regarding some of the key issues they are facing. Suggested items for discussion can be sent to jbates@owa.ca in advance to be added to the agenda. The agenda and dial in coordinates can be found on the [OWA Members Forum](#), located on the members only section of the website under Members Exchange.

OWA Power of Water Conference and Annual General Meeting

Registration is now open for the 10th annual Power of Water Conference. Members are encouraged to register early to take advantage of the early booking discounts.

Early registration is open until July 1st. Members **save \$100.00** and pay only the GST. Register now at <http://www.owa.ca/conferences/conf2010.html>.

New Waterpower and Wind Power Atlas

The Ontario Ministry of Natural Resources, Renewable Energy Program (REP) has released the new Renewable Energy Atlas. The new atlas was created by merging the Water and Wind Power atlases into a single web based application. The new Renewable Energy Atlas can be found at the following link:

http://www.lio.ontario.ca/imf-ows/imf.jsp?site=renew_en

For more information please contact Janelle Bates at jbates@owa.ca or 1-866-743-1500.

[Unsubscribe](#)

**MNR Communication on Zone of Influence for Projects Planned under the
OWA Class EA for Waterpower Projects**

- MNR respects the Zone of Influence (ZOI) definition contained in the OWA Class EA for Waterpower Projects (the Class EA). MNR encourages proponents to discuss with/seek clarification from OWA, if required, on how to apply the definition either generally or within the context of a particular project.
- MNR will continue to use this definition, the general guidance contained in Section 2.5 of the Class EA (“The Environment Affected and the Expected Range of Effects”) and MNR’s 2010 interim guidance for “Field Data Collection for Waterpower Projects” to inform our discussion with proponents on how to delineate for each waterpower project an appropriate ZOI to enable the proponent to adequately describe the environment affected and the range of effects for the purposes of the Class EA
- MNR will continue to use the above guidance in conjunction with the broad purposes as set out in Section 2 of the Lakes and Rivers Improvement Act to ensure that in approving the location of the project/facility the operational requirements/constraints, flooding rights, mitigation to reduce impacts, compensation measures to address impacts and monitoring requirements have been adequately identified.
- MNR will continue to work collaboratively with proponents to meet the intent of Section 5.0 of the Class EA to identify opportunities to create a process that facilitates coordination with and integration of other legislative and regulatory requirements. In keeping with a coordinated approach, MNR recommends that all requirements of the LRIA, ESA and PLA be considered prior to and throughout the EA process.
- MNR recognizes that the Class EA is the primary planning and public engagement framework for waterpower proposals. Consistent with the Class EA, proponents are ultimately responsible for determining the required ecological data collection requirements with consideration being given to advice provided by MNR. It is the proponent’s responsibility to determine the potential ZOI (i.e. project scope) under the Class EA.
- 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.

06/06/13

Ministry of Tourism, Culture and Sport

Ministry of Tourism and Culture

Culture Programs Unit
Programs and Services Branch
Culture Division
435 S. James St., Suite 334
Thunder Bay, ON P7E 6S7
Tel.: 807 475-1632
Fax: 807 475-1297

Ministère du Tourisme et de la Culture

Unité des programmes culturels
Direction des programmes et des services
Division de culture
Bureau 334, 435 rue James sud
Thunder Bay, ON P7E 6S7
Tél.: 807 475-1632
Télééc.: 807 475-1297



May 10, 2011

Xeneca Power Development Inc.
5160 Yonge St., Suite 520
Toronto, ON M2N 6L9

RE: Proposed Hydroelectric Development Blanche River, Marter Twp.

MNR Site # 2CJ16, 2JC17

FIT#: FIT-000650-WAT-130-301

IRIMS: HD000598

PIF: P065-127-2010

Dear Proponent:

This letter constitutes the Ministry of Tourism and Culture's written comments as required by s. 22(3)(a) of O. Reg. 359/09 under the *Environmental Protection Act* regarding archaeological assessments undertaken for the above project.

Based on the information contained in the report(s) you have submitted for this project, the Ministry believes the archaeological assessment complies with the *Ontario Heritage Act's* licensing requirements, including the licence terms and conditions and the Ministry's 1993 Archaeological Assessment Technical Guidelines. Please note that the Ministry makes no representation or warranty as to the completeness, accuracy or quality of the Report(s).*

The report(s) recommends the following:

- As the proposed water power site is within 1km of a known archaeological site, and through its construction will flood undisturbed areas of the Blanche River (a known travel route), an conclusion of confirmed high archaeological potential was reached. It is recommended that follow up Stage 2 assessments be carried out for those high potential archaeological areas shown in Figure 3 in advance of any construction.

- It is also recommended that once the final location of access roads, new transmission lines, aggregate pits and other infrastructure are finalized, that these areas be subject to a Stage 2 assessment if they are determined to have high archaeological potential.
- The Stage 2 archaeological work will be carried out after 2010, it will be subject to the 2010 Ministry of Tourism and Culture's Standards and Guidelines in effect as of January 1, 2011.

The Ministry is satisfied with these recommendations.

This letter does not waive any requirements which you may have under the Ontario *Heritage Act*. A separate letter addressing archaeological licensing obligations under the Act will be sent to the archaeologist who completed the assessment and will be copied to you.

This letter does not constitute approval of the renewable energy project. Approvals of the project may be required under other statutes and regulations. It is your responsibility to obtain any necessary approvals or licences.

Please feel free to contact me if you have questions or require additional information.

Sincerely,



Andrew Hinshelwood
Archaeology Review Officer

cc. Consultant

** In no way will the Ministry be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the Report(s) or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this letter. Further measures may need to be taken in the event that additional artifacts or archaeological sites are identified or the Report(s) is otherwise found to be inaccurate, incomplete, misleading or fraudulent.

Ministry of Tourism, Culture and Sport

Culture Programs Unit
Programs and Services Branch
Culture Division
401 Bay Street, Suite 1700
Toronto ON M7A 0A7
ArchaeologyReports@ontario.ca

Ministère du Tourisme, de la Culture et du Sport

Unité des programmes culturels
Direction des programmes et des services
Division de culture
401, rue Bay, bureau 1700
Toronto ON M7A 0A7
ArchaeologyReports@ontario.ca



February 5, 2013

John Pollock
Woodland Heritage Services Limited
17 Wellington Street, Box 2529
New Liskeard, Ontario
P0J 1P0

RE: Entry into the Ontario Public Register of Archaeological Reports: Archaeological Assessment Report Entitled, “Stage 2 Archaeological and Cultural Heritage Resource Assessment of a proposed Hydro Development on the Blanche River, Lot 12, Concession 5 and 6, Marter Township and Lot 1, Concession 6, Chamberlain Township, Timiskaming District, Ontario (FIT# F-000650-WAT-130-301)”, Dated December 31, 2012 Received by MTCS Toronto Office on January 17, 2013, MTCS Project Information Form Number P016-326-2011, MTCS File Number HD00598

Dear Mr. Pollock:

The above-mentioned report, which has been submitted to this Ministry as a condition of licensing in accordance with Part VI of the Ontario Heritage Act, R.S.O. 1990, c. 0.18 has been entered into the Ontario Public Register of Archaeological Reports without technical review.¹

Please note that the ministry makes no representation or warranty as to the completeness, accuracy or quality of reports in the register.

Should you require further information, please do not hesitate to send your inquiry to ArchaeologyReports@Ontario.ca.

cc. Ed Laratta, Xeneca Power Development Inc.
Corrinne Nelson, Ministry of Natural Resources

¹In no way will the ministry be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the Report(s) or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this letter. Further measures may need to be taken in the event that additional artifacts or archaeological sites are identified or the Report(s) is otherwise found to be inaccurate, incomplete, misleading or fraudulent.

Other Provincial and Federal Agencies

**Ministry of
Municipal Affairs
and Housing**

**Ministère des
Affaires municipales
et du Logement**



**Municipal Services Office
Northeastern**

159 Cedar Street, Suite 401
Sudbury ON P3E 6A5
Telephone: 705 564-0120
Toll Free: 1 800-461-1193
Fax: 705 564-6863
Web : www.mah.gov.on.ca/onramp-ne

**Bureau des services aux municipalités
du Nord-Est**

159, rue Cedar, bureau 401
Sudbury ON P3E 6A5
Téléphone : 705 564-0120
Sans frais : 1 800 461-1193
Télécopieur : 705 564-6863
Site Web: www.mah.gov.on.ca/onramp-ne

July 20, 2010

VIA REGULAR MAIL

Mr. Peter Gillette
Xeneca Power Development Inc.
5160 Younge Street, Suite 520
Toronto, ON M2N 6L9

Dear Mr. Gillette,

RE: Northeastern Ontario FIT Projects
Request for Comments

Thank you for providing MAH with notice of 19 potential FIT projects located across northeastern Ontario. This notice and package of materials including mapping was received on June 16, 2010. Please note that this office does not intend to comment specifically on any of these projects.

As per conversation between myself and Vanesa Enskaitis of your office on July 19, 2010, it is understood that you have already contacted some municipalities with respect to these projects. It is recommended that any municipalities that may be affected by these projects should be provided with notice. In particular:

- the Allen & Struthers project appears to be within the Municipality of Killarney;
- 3 of the 4 projects on the Vermillion River appear to be within the City of Greater Sudbury, and the fourth may be of interest to the Township of Nairn and Hyman;
- the two projects on the Serpent River appear to be within the City of Elliot Lake;
- the project on the Blanche River appears to be within the Township of Chamberlain;
- the project on the Larder River may be of interest to the Township of Larder Lake and/or the Township of McGarry; and
- the projects on the Kapuskasing River and Ivanhoe River may be of interest to the Township of Chapleau.

For future reference, the mapping of our regional office's area of coverage is available at <http://www.mah.gov.on.ca/Page5869.aspx>.

If you have further questions, please do not hesitate to contact me directly at 705-564-6802.

Sincerely,

Wendy Kaufman, MCIP, RPP
Planner

From: Tami Sugarman
Sent: December-06-10 9:06 AM
To: Tovey, Dan (MAH)
Cc: Kaufman, Wendy (MAH); White, Charlsey (MAH); Philippa McPhee; Pilar DePedro
Subject: RE: Xeneca Power Development Inc.

Acknowledged.
Best regards
Tami

Tami Sugarman - OEL-HydroSys Carp - (613) 839-1453 x229

From: Tovey, Dan (MAH) [mailto:Dan.Tovey@ontario.ca]
Sent: December 3, 2010 6:43 PM
To: Tami Sugarman
Cc: Kaufman, Wendy (MAH); White, Charlsey (MAH); Philippa McPhee; Pilar DePedro
Subject: RE: Xeneca Power Development Inc.

Tami,
As noted in our July 20th correspondence, MMAH's Northeastern Municipal Services office doesn't need to be further notified on any of the projects you've identified below.

Thanks

Dan Tovey | Manager(A)
Community Planning and Development, Northeastern Municipal Services Office
Ministry of Municipal Affairs and Housing
☎: 705.564.7128 | 📠: 705.564.6863 | ✉: dan.tovey@ontario.ca

Visit our OnRAMP Site at: www.mah.gov.on.ca/onramp-ne



Please consider the environment before printing this email note.

From: Tami Sugarman [mailto:tsugarman@oel-hydrosys.ca]
Sent: November 25, 2010 1:45 PM
To: Tovey, Dan (MAH)
Cc: Kaufman, Wendy (MAH); White, Charlsey (MAH); Elms, Michael (MAH); Philippa McPhee; Pilar DePedro
Subject: RE: Xeneca Power Development Inc.

Hello Dan and MAH team:

Thank you for providing a copy of your Ministry's correspondence to Xeneca dated July 20, 2010. This correspondence was not shared with my office, which may explain why we did not contact your regional offices directly.

For the Larder site it is very clear that no further engagement of the MAH is required.

Please clarify: To what degree, if at all, does your Ministry need to be further notified in the EA planning processes for the remaining proposed waterpower development projects? We have the MAH team organized as such;

For the six projects that we have issued Project Descriptions to date:

- Serpent- Four Slide Falls - Charlsey White
- Serpent- McCarthy Chute - Charlsey White
- Ivanhoe- The Chute, Wendy Kaufman
- Wanapatei- Allen and Struthers, Wendy Kaufman
- Vermilion- Wabageshik, Wendy Kaufman
- Petawawa- Half Mile, Michael Elms

And for some pending Project Descriptions:

- Petawawa- Big Eddy - Michael Elms
- Blanche- Marter Twp. - Wendy Kaufman
- Ivanhoe- Third Falls - Wendy Kaufman
- Vermilion- At Soo Crossing, Cascade Falls, McPherson Falls - Wendy Kaufman
- Frederickhouse- Wanatango – Wendy Kaufman

Our consultation and engagement plan for these projects include the municipalities listed in your July 20 letter as well as others identified for each project. We will ensure that these municipalities are provided with opportunities to engage in the planning process, including all mandatory notice points.

Respectfully,
Tami Sugarman



Tami Sugarman, B.Sc., P.Geo. – Principal, Environmental Assessment and Approvals Coordinator

OEL-HydroSys Inc. – 3108 Carp Road - P.O. Box 430, Carp Ontario K0A 1L0

(T) (613) 839-1453 x229 (C) (613) 894-3509 (F) (613) 839-5376

tsugarman@oel-hydrosys.ca – www.oel-hydrosys.ca

OEL-HydroSys, WESA Envir-Eau, WESA, WESA Technologies, members of WESA Group Inc.

NOTE: Si ce courriel ne vous est pas adressé, veuillez le supprimer immédiatement. La transmission non autorisée de ce courriel est interdite.



Pensez à l'environnement avant l'impression de ce courriel

From: Tovey, Dan (MAH) [mailto:Dan.Tovey@ontario.ca]

Sent: November 23, 2010 2:22 PM

To: Tami Sugarman

Cc: VEnskaitis@xeneca.com; Kaufman, Wendy (MAH); White, Charlsey (MAH); Pilar DePedro; Elms, Michael (MAH)

Subject: Xeneca Power Development Inc.

Hello Tami,

Over the last few days this office has received several emails containing the link to the project description and advance notice on upcoming meetings for FIT projects in the following locations:

- Allan and Struthers (Wanapitei R)
- Serpent River
- Larder River
- Ivanhoe
- Wabagishik Rapids

An individual response re the Larder River was provided via email on Friday, November 19, 2010.

Review of our files has revealed that a comprehensive response regarding 19 FIT projects was provided by our office to Mr. Peter Gilette by mail on July 20, 2010 following a telephone discussion with Vanesa Enskaitis. The unsigned version of our response is attached for your reference.

Thank you for providing us with a second opportunity to comment on some of these projects, but this first response will be the only comments that our office will be putting forward.

The Petawawa River notice should be directed to Mike Elms, Manager of Community Planning and Development, of our Eastern Municipal Services Office (c.c.'d on this email).

Thank you,

Dan Tovey | Manager(A)
Northeastern Municipal Services Office
Ministry of Municipal Affairs and Housing
☎: 705.564.7128 | 📠: 705.564.6863 | ✉: dan.tovey@ontario.ca

Visit our OnRAMP Site at: www.mah.gov.on.ca/onramp-ne



Please consider the environment before printing this email note.

From: Tami Sugarman [mailto:tsugarman@oel-hydrosys.ca]
Sent: November 21, 2010 1:10 PM
To: Liu, Amy [CEAA]; Hutchison, Carrie (ENE); rich.rudolph@dfo-mpo.gc.ca; EnviroOnt@tc.gc.ca; EACoordination_ON@inac-ainc.gc.ca; melanie_lalani@hc-sc.gc.ca; Rob.Dobos@ec.gc.ca; Caitlin.Scott@NRCan.gc.ca; Robinson, Bob L. (MNR); Webber, Gerry (MTC); Miller, Chuck (MNR); Morello, Murray (MNDMF); Tovey, Dan (MAH); Kaufman, Wendy (MAH); Gibson, Amy (MEI); Pickles, David (MAA); Godin, Greg (MTO); paul.sajatovic@sudbury.ca; townkill@vianet.on.ca
Cc: Ed Laratta; Vanesa Enskaitis; Philippa McPhee; pnorris@owa.ca; Rob Steele
Subject: Xeneca Power Development Inc. proposed Allen and Struthers waterpower project on the Wanapitei River - Project Description Document Notice
Importance: High

Good afternoon:

On behalf of Xeneca Power Corporation Inc. we are pleased to provide you with the attached letter of introduction and directions to accessing and downloading the project description document for the proposed Xeneca Power Corporation Inc. waterpower development at the Allen and Struthers Project site located on the

Wanapitei River in northeastern Ontario. Xeneca has been awarded a Feed-in Tariff (FIT) contract for this site by the Ontario Power Authority (OPA).

You are included on our email list as you have been identified as the one-window contact for your organization and are listed as such on the Contact List for the project. We ask that you distribute this information to colleagues within your organization that should be involved in the planning process. If the main contact for your organization is someone other than you please inform us at EAinfo@oel-hydrosys.ca as soon as possible so that our staff can update the contact list accordingly.

We have elected to distribute this document in electronic format for environmental reasons. You may access our FTP site by completing the following instructions:

Site: [REDACTED]
Username: [REDACTED]

An attached word document guide will assist you with the download process. You will need to activate passive mode in your Internet Explorer browser to be able to access the FTP site behind our corporate firewall.

Aboriginal communities located nearby will also be receiving this notice directly from Xeneca's First Nation and Aboriginal Relations Liaison, Mr. Dean Assinewe.

A hard paper copy and/or CD Rom copy of the project description document will be issued shortly to federal agencies and Aboriginal communities.

Other Parties: If you require a paper and/or CD Rom copy in addition to this electronic copy please notify us at EAinfo@oel-hydrosys.ca otherwise we will assume that this electronic version is adequate.

We are pursuing an Ontario Class Environmental Assessment for Waterpower Projects planning process for this site. A federal screening may also be triggered at the site.

The project description is intended to provide an overview of the project components, general information on the project setting and relevant background information on the project. This Project Description is also designed to assist the proponent in ensuring that all aspects of the project are accounted for in enough detail to allow the public, Aboriginal communities and government agencies to provide meaningful comment throughout the Class EA process. The information will allow you to identify your environmental assessment and regulatory requirements associated with the project. It will also allow a federal authority to determine if there is potential for the *Canadian Environmental Assessment Act (CEAA)* to be triggered by the project proposal and whether the agency will be a Responsible Authority (RA) under *CEA Act* or whether it is able to provide technical expertise as an expert advisor (FA).

It is our intention to schedule a proponent-agency EA coordination meeting as soon as possible. We hope that this project description document will assist you in preparing for this meeting, the purpose of which is to discuss the following items in the context of the project's proposed schedule;

- applicable policies and procedures administered by each agency (list of statutes and regulations) and list of required approvals for the project;
- a comprehensive list of values and issues of concern/benefit identified with the site and the project (natural, socio-cultural, economic);
- data and information collection procedures; and,
- a consultation and engagement plan.

We trust this submission is adequate for these purposes. Please do not hesitate to contact us with any questions or clarifications.

Respectfully submitted on behalf of Xeneca Power Corporation Inc.,

Tami Sugarman and Philippa McPhee, EA Project Managers
OEL-HydroSys Inc.



Tami Sugarman, B.Sc., P.Geo. – Principal, Environmental Assessment and Approvals Coordinator

OEL-HydroSys Inc. – 3108 Carp Road - P.O. Box 430, Carp Ontario K0A 1L0

(T) (613) 839-1453 x229 (C) (613) 894-3509 (F) (613) 839-5376

tsugarman@oel-hydrosys.ca – www.oel-hydrosys.ca

OEL-HydroSys, WESA Envir-Eau, WESA, WESA Technologies, members of WESA Group Inc.

NOTE: Si ce courriel ne vous est pas adressé, veuillez le supprimer immédiatement. La transmission non autorisée de ce courriel est interdite.



Pensez à l'environnement avant l'impression de ce courriel

From: Lillie-Paetz, Jennifer (MNDMF) <Jennifer.Lillie-Paetz@ontario.ca>
Sent: August-26-11 9:13 AM
To: Tami Sugarman
Cc: Lillie-Paetz, Jennifer (MNDMF)
Subject: MNDMF comments: Xeneca Power Development Inc. proposed Marter Township waterpower project on the Blanche River - Project Description Document Notice

Dear Ms. Sugarman,

Thank you for the opportunity to review and comment on the proposed Blanche River Waterpower Project in Marter Township.

The Ministry of Northern Development, Mines and Forestry's (MNDMF) interest in this project stems from our mandate: to make Northern Ontario strong, healthy and prosperous by providing northerners with access to government programs and services; and by working across the Province to generate new wealth and benefits by supporting Ontario's forest industry and mineral exploration, mining and geosciences sectors. Specific details on the responsibilities of MNDMF can be found on the Ministry's website at www.mndmf.gov.on.ca.

MNDMF's Northern Development and Forestry divisions had no comments to make on this proposed project.

MNDMF's Mines and Minerals Division had the following comments to make on the proposed project:

Aboriginal Relations Unit

The First Nation communities in the area appear to have been identified appropriately. MNDMF is aware that Temagami First Nation has previously expressed interest in projects in this area. The proponent may want to consider contacting the Wabun Tribal Council about this proposal.

Mine Hazards

There is a known mine hazard within the vicinity of the project: Abandoned Mine Information System (AMIS) # 08303 Sawka-Allard Mine in Lot 12, Concession 5 of Marter Township. This site hazard feature is reported to be a one-compartment vertical shaft that is believed to be at least seven metres in depth. This feature was documented as being situated on the right bank of the Blanche river, 200 feet upstream from the junction with the Misema River and about 30 feet above water-level. **MNDMF advises the proponent to exercise caution within at least 500 metres of the junction location.** Please see the attached map and AMIS report. Also please note the disclaimer in the report that the location on the map may be incorrect and the exact location of the old shaft is unknown.

Mining Lands

The project area appears to be held by a patent for both the surface rights and the mining rights. It also appears to be partially covered by an application under the *Public Lands Act (PLA)*. MNDMF recommends – if it has not already been done – that the proponent complete a title search in order to verify that they have full ownership of the lands. The Ministry of Natural Resources would be the appropriate ministry to contact regarding the *PLA* application.

Resident Geologist Program

The Resident Geologist Program has provided comments regarding the mineral potential for the area and has described any mineral occurrences that may be in the area.

The area has high mineral potential for gold and copper. There is also potential for diamonds in this area. The site is underlain by mafic to intermediate metavolcanic rocks and felsic intrusive rocks of granodiorite to granite.

There are four known mineral occurrences within the immediate area of this proposed project. There are two occurrences for gold and two occurrences for copper. One of these mineral occurrences coincides with the AMIS hazard # 08303 Sawka-Allard Mine.

MNDMF advises that the proponent should be aware that there is high potential for exploration activity to occur in the area.

Published reports and Mineral Deposit Inventory and Abandoned Mines records are also available for viewing or free download through the Geology Ontario portal using the following link: <http://www.geologyontario.mndmf.gov.on.ca/>.

Thank you once again for the opportunity to comment. If you have any questions about MNDMF's response, please feel free to contact me.

Sincerely,

Jenn Lillie-Paetz

Environmental Assessment Coordinator
Ministry of Northern Development, Mines and Forestry
933 Ramsey Lake Rd, 6th Floor
Sudbury ON P3E 6B5
Tel: (705) 670-5918
Toll Free: (888) 415-9845 Ext. 5918
Fax: (705) 670-5803
Email: Jennifer.Lillie-Paetz@Ontario.ca

From: Environmental Assessment Information [mailto:eainfo@oel-hydrosys.ca]
Sent: August 9, 2011 4:32 PM
To: Smith, Brett (ENERGY); Caitlin Scott; Carl Jorgensen; Colin Hoag; Pickles, David (MAA); Cramm, Ellen (ENE); Webber, Gerry (MTC); Kwan, Helen L. (ENERGY); Jana Von Oosten; Lillie-Paetz, Jennifer (MNDMF); Kirzati, Katherine (MTC); Kentish, Lianne (ENE); Mei Ling Chen; Nancy Allick; Santos, Narren (ENE); Marleau, Paul (MTO); Paul Norris; Gordon, Rick (MNR); Rob Dobos; Walker, Shaun (MNR); Spooner, Dr. Simon (MTC); Stephanie Davis; Transport Canada
Cc: elaratta@xeneca.com; venskaitis@xeneca.com
Subject: Xeneca Power Development Inc. proposed Marter Township waterpower project on the Blanche River - Project Description Document Notice

Good afternoon:

On behalf of Xeneca Power Corporation Inc. we are pleased to provide you with the attached letter of introduction and directions to accessing and downloading the project description document for the proposed Xeneca Power Corporation Inc. waterpower development at Marter Township site located on the Blanche River in northeastern Ontario. Xeneca has been awarded a Feed-in Tariff (FIT) contract for this site by the Ontario Power Authority (OPA).

You are included on our email list as you have been identified as the one-window contact for your organization and are listed as such on the Contact List for the project. We ask that you distribute this information to colleagues within your organization that should be involved in the planning process. If the main contact for your organization is someone other than you please inform us at EAinfo@oel-hydrosys.ca as soon as possible so that our staff can update the contact list accordingly.

We have elected to distribute this document in electronic format for environmental reasons. You may access our FTP site by completing the following instructions:

Site: [REDACTED]
Username: [REDACTED]

You will need to use Internet Explorer rather than Mozilla Firefox, Username and Password are case sensitive.

Aboriginal communities located nearby will also be receiving this notice directly from Xeneca's First Nation and Aboriginal Relations Liaison, Mr. Dean Assinewe.

A hard paper copy and/or CD Rom copy of the project description document will be issued shortly to federal agencies and Aboriginal communities.

Other Parties: If you require a paper and/or CD Rom copy in addition to this electronic copy please notify us at EAinfo@oel-hydrosys.ca otherwise we will assume that this electronic version is adequate.

We are pursuing an Ontario Class Environmental Assessment for Waterpower Projects planning process for this site. A federal screening may also be triggered at the site.

The project description is intended to provide an overview of the project components, general information on the project setting and relevant background information on the project. This Project Description is also designed to assist the proponent in ensuring that all aspects of the project are accounted for in enough detail to allow the public, Aboriginal communities and government agencies to provide meaningful comment throughout the Class EA process. The information will allow you to identify your environmental assessment and regulatory requirements associated with the project. It will also allow a federal authority to determine if there is potential for the *Canadian Environmental Assessment Act (CEAA)* to be triggered by the project proposal and whether the agency will be a Responsible Authority (RA) under *CEA Act* or whether it is able to provide technical expertise as an expert advisor (FA).

It is our intention to schedule a proponent-agency EA coordination meeting the week of September 5th. We hope that this project description document will assist you in preparing for this meeting, the purpose of which is to discuss the following items in the context of the project's proposed schedule;

- applicable policies and procedures administered by each agency (list of statutes and regulations) and list of required approvals for the project;
- a comprehensive list of values and issues of concern/benefit identified with the site and the project (natural, socio-cultural, economic);
- data and information collection procedures; and,
- a consultation and engagement plan.

We trust this submission is adequate for these purposes. Please do not hesitate to contact us with any questions or clarifications.

Respectfully submitted on behalf of Xeneca Power Corporation Inc.,

Tami Sugarman
OEL-HydroSys Inc.



Environmental Assessment Information

OEL-HydroSys Inc. — 3108 Carp Rd. - P.O. Box 430, Carp, Ontario, Canada K0A 1L0
(T) (613) 839-1453 (F) (613) 839-5376

From: Muriel Kim
Sent: July-25-12 11:59 AM
To: 'Lusk,Sheryl [Ontario]'
Cc: Dobos,Rob [Burlington]
Subject: RE: Proposed Blanche River waterpower project - Upcoming distribution of the DRAFT Environmental Report

Hello Sheryl,

At the moment, it would be more practical to send you a CD of the draft report, since some agencies have had trouble accessing and downloading files from our (and our client's) FTP sites, particularly when file sizes are very large. We will send you 1 CD for each of the draft reports for Wabageshik Rapids and Blanche River; please let me know if you need additional copies.

Regards,
Muriel

Muriel Kim - Environmental Scientist - (613) 839-3053 x261

From: Lusk,Sheryl [Ontario] [<mailto:Sheryl.Lusk@ec.gc.ca>]
Sent: July-25-12 10:10 AM
To: Muriel Kim
Cc: Dobos,Rob [Burlington]
Subject: RE: Proposed Blanche River waterpower project - Upcoming distribution of the DRAFT Environmental Report

Hi Muriel,

Yes, I am the coordinator for Environment Canada's review of this project. Would it be possible to obtain the report via an ftp site? If not, a CD (no hard copy, please) would be my next preference.

Thanks,
Sheryl

Sheryl Lusk
Environmental Assessment Officer
Environmental Assessment Section
Environmental Protection Operations Division - Ontario
Environmental Stewardship Branch
Environment Canada
4905 Dufferin Street
Toronto ON M3H 5T4
sheryl.lusk@ec.gc.ca
Telephone 416-739-5962
Facsimile 416-739-4405
Government of Canada
Website www.ec.gc.ca

Sheryl Lusk
Agent d'évaluation environnementale

Section de programme d'évaluation environnementale
Division des opérations de protection de l'environnement de l'Ontario
Direction générale de l'intendance environnementale
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4905 rue Dufferin
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sheryl.lusk@ec.gc.ca
Téléphone 416-739-5962
Télécopieur 416-739-4405
Gouvernement du Canada
Site Web www.ec.gc.ca

From: Muriel Kim [<mailto:mkim@wesa.ca>]
Sent: July 24, 2012 10:55 AM
To: kelly.eggert@dfo-mpo.gc.ca; Davis,Stephanie [CEAA]; lisa.mcdonald@tc.gc.ca; EACoordination_ON@inac-ainc.gc.ca; katherine.hess@hc-sc.gc.ca; Lusk,Sheryl [Ontario]; Caitlin.Scott@NRCan.gc.ca; tina.webb@ontario.ca; shaun.walker@ontario.ca; gerry.webber@ontario.ca; jennifer.lillie-paetz@ontario.ca; brett.smith@ontario.ca; David.Pickles@ontario.ca; paul.marleau@ontario.ca
Cc: Tami Sugarman; Kai Markvorsen
Subject: Proposed Blanche River waterpower project - Upcoming distribution of the DRAFT Environmental Report

Good afternoon,

We will soon be distributing the DRAFT Environmental Report (ER) for the proposed Xeneca Power Corporation Inc. waterpower development on the Blanche River (Marter Township).

The proposed undertaking is subject to the Class Environmental Assessment for Waterpower Projects as a new project on a managed waterway. While there is no formal requirement for a draft ER in the Class EA for Waterpower Projects, this document will be circulated to key parties in order to facilitate an efficient regulatory review of the final document.

We would like to confirm that you continue to be the appropriate one-window contact at your organization, and whether there are additional individuals within your organization whom you believe should also receive a copy of the draft ER. We are planning to distribute one hard copy and one CD-ROM to each regulator on our contact list; please let us know if you would like to receive additional copies, or if only one form of the report (hard copy or CD-ROM) would suffice.

I will follow up this message with a phone call within the next couple of days to confirm your participation in the review process.

Best regards,
Muriel Kim



Muriel Kim M.Sc.
Environmental Scientist

(T) (613) 839-3053 x261 (C) (613) 294-3886 mkim@wesa.ca www.wesa.ca

NOTE: If you are not the intended recipient of this e-mail, please delete it immediately. Unauthorized transmission of this e-mail is prohibited.

From: Smith, Brett (ENERGY) <Brett.Smith@ontario.ca>
Sent: August-07-12 9:57 AM
To: Muriel Kim
Cc: Kwan, Helen L. (ENERGY)
Subject: RE: Proposed Blanche River waterpower project - Upcoming distribution of the DRAFT Environmental Report

Muriel,

Helen Kwan should be the primary point of contact for the Ontario Ministry of Energy. She will be away from the office until August 13th but will be able to reply then regarding the format for the draft ER.

Best regards,
Brett

From: Muriel Kim [<mailto:mkim@wesa.ca>]
Sent: July 24, 2012 10:55 AM
To: kelly.eggerts@dfo-mpo.gc.ca; stephanie.davis@ceaa-acee.gc.ca; lisa.mcdonald@tc.gc.ca; EACoordination_ON@inac-ainc.gc.ca; katherine.hess@hc-sc.gc.ca; sheryl.lusk@ec.gc.ca; Caitlin.Scott@NRCan.gc.ca; Webb, Tina (ENE); Walker, Shaun (MNR); Webber, Gerry (MTCS); Lillie-Paetz, Jennifer (MNDM); Smith, Brett (ENERGY); Pickles, David (MAA); Marleau, Paul (MTO)
Cc: Tami Sugarman; Kai Markvorsen
Subject: Proposed Blanche River waterpower project - Upcoming distribution of the DRAFT Environmental Report

Good afternoon,

We will soon be distributing the DRAFT Environmental Report (ER) for the proposed Xeneca Power Corporation Inc. waterpower development on the Blanche River (Marter Township).

The proposed undertaking is subject to the Class Environmental Assessment for Waterpower Projects as a new project on a managed waterway. While there is no formal requirement for a draft ER in the Class EA for Waterpower Projects, this document will be circulated to key parties in order to facilitate an efficient regulatory review of the final document.

We would like to confirm that you continue to be the appropriate one-window contact at your organization, and whether there are additional individuals within your organization whom you believe should also receive a copy of the draft ER. We are planning to distribute one hard copy and one CD-ROM to each regulator on our contact list; please let us know if you would like to receive additional copies, or if only one form of the report (hard copy or CD-ROM) would suffice.

I will follow up this message with a phone call within the next couple of days to confirm your participation in the review process.

Best regards,
Muriel Kim

Subject: FW: Wabageshik Rapids - Vermilion River draft environmental report available for review
Attachments: Xeneca - Proponent Notification of Terminated Screenings.pdf

From: Donato, Angela [<mailto:Angela.Donato@NRCan-RNCan.gc.ca>]
Sent: Monday, August 13, 2012 2:36 PM
To: Grace Yu
Subject: RE: Wabageshik Rapids - Vermilion River draft environmental report available for review

Hi Grace,

Along with Amy's response below, NRCan will no longer be reviewing the Xeneca projects stated in DFO's July 12, 2012 letter and can be removed from correspondence.

Thank you,

Angela Donato

613-947-5861

From: Grace Yu [<mailto:GYu@xeneca.com>]
Sent: August 10, 2012 15:35
To: Liu,Amy [CEAA]; Allen, Paula (ENE); Donato, Angela
Cc: Ed Laratta; Eggers, Kelly; Davis,Stephanie [CEAA]; Blajchman,Amiel [CEAA]
Subject: RE: Wabageshik Rapids - Vermilion River draft environmental report available for review

Thank you Amy for the confirmation. We will remove CEAA contacts from the list.

Best regards,
Grace

Grace Yu (M. Env. Sc., EPt) | Environmental Assessment/Approvals Officer | Xeneca Power Development Inc.
5255 Yonge Street, Suite 1200, North York, ON M2N 6P4
Tel: 416 590 3064 | **Fax:** 416 590 9955 | **Email:** gyu@xeneca.com

From: Liu,Amy [CEAA] [<mailto:Amy.Liu@ceaa-acee.gc.ca>]
Sent: Friday, August 10, 2012 3:26 PM
To: Grace Yu; Allen, Paula (ENE); Angela.Donato@nrcan.gc.ca; Selinger, Wayne (MNR); Cobb, Eric (MNR)
Cc: Ed Laratta; Eggers, Kelly; Davis,Stephanie [CEAA]; Blajchman,Amiel [CEAA]
Subject: RE: Wabageshik Rapids - Vermilion River draft environmental report available for review

Hi Grace.

In light of the new Canadian Environmental Assessment Act 2012, the Canadian Environmental Assessment Agency is no longer involved with the hydro projects, proposed by Xeneca Power Development Inc., that are listed in DFO's attached July 12, 2012 letter. Can you please take the CEA Agency contacts off your distribution lists for these projects?

Thank you.

Amy Liu

Project Manager | Gestionnaire de projets

Ontario Region | Agence canadienne d'évaluation environnementale, Région de l'Ontario

55 St. Clair Avenue East, Suite 907 Toronto ON M4T 1M2 | 55 avenue St. Clair Est pièce 907 Toronto ON M4T 1M2

amy.liu@ceaa-acee.gc.ca

<http://www.ceaa-acee.gc.ca>

Telephone | Téléphone 416-952-1585

Facsimile | Télécopieur 416-952-1573

Government of Canada | Gouvernement du Canada

From: Grace Yu [<mailto:GYu@xeneca.com>]

Sent: August 10, 2012 2:14 PM

To: Allen, Paula (ENE); Liu, Amy [CEAA]; Angela.Donato@nrcan.gc.ca; Selinger, Wayne (MNR); Cobb, Eric (MNR)

Cc: Ed Laratta

Subject: FW: Wabageshik Rapids - Vermilion River draft environmental report available for review

Hello everyone,

FYI. The draft Wabageshik ER is available for agency review for a 30 days review period.

Apologies for you were not copied to on the distribution list below.

Thank you.

Best regards,

Grace

Grace Yu (M. Env. Sc., EPt) | Environmental Assessment/Approvals Officer | Xeneca Power Development Inc.

5255 Yonge Street, Suite 1200, North York, ON M2N 6P4

Tel: 416 590 3064 | **Fax:** 416 590 9955 | **Email:** gyu@xeneca.com

From: Kai Markvorsen [<mailto:kmarkvorsen@wesa.ca>]

Sent: Friday, August 10, 2012 11:41 AM

To: kelly.eggars@dfo-mpo.gc.ca; sheryl.lusk@ec.gc.ca; ellen.cramm@ontario.ca; mohammad.khan@ontario.ca; rod.sein@ontario.ca; Robinson, Bob (MTO); parise.drolet@ontario.ca; stephanie.davis@ceaa-acee.gc.ca

Cc: Ed Laratta; Grace Yu; Stephanie Hodsoll; Tami Sugarman

Subject: Wabageshik Rapids - Vermilion River draft environmental report available for review

Good morning,

On behalf of Xeneca Power Development Inc., please be advised that the draft environmental report for the Wabageshik Rapids Generating Station on the Vermilion River is now available for review.

Xeneca is providing this document for discussion purposes as part of a 30-calendar day draft review period scheduled to end on September 11th, 2012. This review period is intended to allow regulatory agencies a preliminary opportunity to

identify issues and concerns prior to the document being finalised and shared with the public for the formal thirty-day public and agency review.

The report can be downloaded from our FTP site using Internet Explorer and the following access information:

Site: [REDACTED]
Username: [REDACTED]
Password: [REDACTED]

Hard copies and/or digital copies on CD have been distributed via courier to those who have requested the report in those formats.

If you have any questions or have difficulty accessing the FTP site please feel free to contact me.

Respectfully,

Kai



Kai Markvorsen B.Sc.
Environmental Consultant
(T) (613) 839-1453 x 248 (C) (613) 277-1164 kmarkvorsen@wesa.ca www.wesa.ca

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