

NALCOR LOWER CHURCHILL PROJECT Strategic Reviewing of the JRP Report

September 13, 2011



Stratégies sociales
Gestion participative
Développement durable
Communication environnementale



GENERAL COMMENTS

- *Transfert Environnement* would like to underline the fact that many of the Panel's conclusions clearly refer to participants' views and concerns about the Project. Some indicative phrases of this conclusion are: "The fact that many participants questioned ..." and "As some participants have stated ...".

In light of this, it is important not to respond to the JRP recommendations directly but to respond to the concern(s) behind the recommendations. Nalcor should make sure that the context of each recommendation is well defined by analyzing the "Participants' Views" section and "Panel Conclusions and Recommendations".

- Nalcor should adopt the following approach to respond to the JRP recommendations depending on the following conditions:
 - ✓ If the recommendation has already been addressed, then Nalcor should indicate that this point has already been considered and describe the measures Nalcor has taken to address it. Including the specific measures to be implemented clarifies the efforts made by Nalcor to integrate participants' questions and concerns into project development.
 - ✓ If the recommendation is considered, then Nalcor should indicate its agreement with the JRP recommendation and describe the measures Nalcor will take to address it.
 - ✓ If the recommendation is rejected, then Nalcor should indicate that it takes this recommendation into account but considers that planned measures will address this concern (then describe these measures).
- In several recommendations, the Panel suggests that Nalcor report its efforts, results, etc. in an annual or special report that should be publicly available. To support this effort in transparency, Nalcor could put up a Project-specific website that will present all of the monitoring, follow-up and consultation efforts carried out by Nalcor.

The web site should be accompanied by a specific e-mail address and/or free phone line to allow people to ask questions, obtain information, and make comments and complaints. The Happy Valley - Goose Bay Information Centre could take on this role. *Transfert Environnement* can provide Nalcor with further advice on this matter if needed.

- *Transfert Environnement* has made specific comments on each of the JRP recommendations that affect Aboriginal groups, which have been highlighted in yellow to allow for easy identification.



GENERAL COMMENTS REGARDING ABORIGINAL GROUPS

- The JRP Report includes a series of text boxes that highlight important conclusions about the Project. It is important that Nalcor analyze each of these conclusions and ensure that any negative conclusions have specifically been answered by commitments to mitigation and compensation measures, demonstrating Nalcor's awareness of the issues at hand.

- The JRP report makes recommendations regarding consultation and involvement of Aboriginal groups on a series of issues such as biophysical monitoring and follow-up, cultural and historical issues, enhancing employment and business benefits, and health and social issues. The Aboriginal context indicates that logistical issues (transportation distances, means and costs) and intercultural issues between Aboriginal and non-Aboriginal groups as well as between different Aboriginal nations, would most likely impede Aboriginal groups from participating in the Lower Churchill Project Monitoring and Community Liaison Committee. Furthermore, in light of the JRP's findings on the need to repair strained relationships and develop relationships based on trust (p. 244), it is necessary to put forward a consultation proposal that recognizes and is adaptable to the specific needs of Aboriginal groups. In this context, and with a view to follow-up on Nalcor's commitment to continuous consultation with Aboriginal groups, Nalcor should implement a permanent communication channel with representatives of the various aboriginal groups, including the Innu of Quebec, in order to respond to the following recommendations by the JRP: 6.6, 6.7, 6.9, 7.1, 7.2, 9.3, 11.1, 11.2, 11.3, 12.5, 12.6, 12.7, 12.9, 13.10, 13.11, 13.12 and 15.5. In order to implement this permanent communication channel, Nalcor should hire an Aboriginal Community Liaison Team to play the following roles:
 - ✓ Act as a communication point between Aboriginal communities and Nalcor on various issues around the Project, including consumption advisories, employment and business opportunities, etc.;
 - ✓ Prepare plain language summaries of reports and proposals on Project-specific mitigation, impact monitoring and adaptive management committed to by Nalcor and as recommended by the Panel;
 - ✓ Circulate plain language summaries of reports and proposals to community representatives and follow-up with meetings or presentations as required;
 - ✓ Obtain feedback and advice from community representatives and ensure follow-ups;



- ✓ Establish ad hoc meetings, subcommittees or working groups to address the key areas of biophysical monitoring and follow-up, cultural and historical issues, enhancing employment and business benefits, and health and social issues;
 - ✓ Structure and organize the direct involvement of Aboriginal groups in any monitoring or other activities as required;
 - ✓ Focus feedback requests on issues of special concern to Aboriginal groups (caribou, migratory birds, etc.).
- This preliminary description of the roles of the Aboriginal Community Liaison Team could be completed by *Transfert Environnement*, providing a detailed task description and an activity schedule describing the treatment of each of the above-mentioned key issues, as a demonstration of Nalcor's proactive management and commitment to respond appropriately.

GENERAL COMMENTS REGARDING QUEBEC INNU

- The Panel's understanding was that current land and resource use is seasonal, sporadic and of short duration, and that many locations were outside of the Project area. Therefore, the Panel concluded that the Project's impact on Quebec Aboriginal Land and Resource Use is adverse but not significant. In consequence, the Panel did not make any specific recommendations about Land and Resource Use.
- The Panel did not make any unfavourable comments on the consultations with Quebec Aboriginal Groups, although the report relayed some criticism from participants of the consultation process (section 13.5.4 p. 243). Therefore, the Panel did not make any specific recommendations about Nalcor's efforts to consult Quebec Innu Groups.
- The Panel noted that most of Quebec Innu concerns were related to caribou hunting. It is suggested that Nalcor ensure that Quebec Innu concerns are well addressed through a specific strategy to mitigate effects on caribou hunting.

The Côte-Nord offers many possibilities of development projects that require the integration of Aboriginal workers. Therefore, only negligible numbers of Québec Innu are likely to show an interest in working on Nalcor's Project. In this context, and in response to certain recommendations made by the JRP (namely 12.5, 12.6 and 12.7), Nalcor would benefit by showing flexibility in their proposed programs to facilitate the integration of Aboriginal workers so as to include the few potential Québec Innu who would show an interest.



Recommendation	Responsibility	Accept/Accept Intent/Reject	Comments
<p>RECOMMENDATION 4.1 Government confirmation of projected long-term returns</p> <p>The Panel recommends that, if the Project is approved, before making the sanction decision for each of Muskrat Falls and Gull Island, the Government of Newfoundland and Labrador undertake a separate and formal review of the projected cash flow of the Project component being considered for sanctioning (either Muskrat Falls or Gull Island) to confirm whether that component would in fact provide significant long-term financial returns to Government for the benefit of the people of the Province. Such financial returns must be over and above revenues required to cover operating costs, expenditures for monitoring, mitigation and adaptive management, and financial obligations to Innu Nation. The Panel further recommends that the Government of Newfoundland and Labrador base these reviews on information on energy sales, costs and market returns that have been updated at the time of sanction decision, and make the results of the reviews public at that time. The financial reviews should also take into account the results of the independent alternatives assessment recommended in Recommendation 4.2.</p>	Government of Newfoundland/Labrador		
<p>RECOMMENDATION 4.2 Independent analysis of</p>	Government of		



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<p>alternatives to meeting domestic demand</p> <p>The Panel recommends that, before governments make their decision on the Project, the Government of Newfoundland and Labrador and Nalcor commission an independent analysis to address the question “What would be the best way to meet domestic demand under the ‘No Project’ option, including the possibility of a Labrador-Island interconnection no later than 2041 to access Churchill Falls power at that time, or earlier, based on available recall?”</p> <p>The analysis should address the following considerations:</p> <ul style="list-style-type: none"> ▪ why Nalcor’s least cost alternative to meet domestic demand to 2067 does not include Churchill Falls power which would be available in large quantities from 2041, or any recall power in excess of Labrador’s needs prior to that date, especially since both would be available at near zero generation cost (recognizing that there would be transmission costs involved); ▪ the use of Gull Island power when and if it becomes available since it has a lower per unit generation cost than Muskrat Falls; ▪ the extent to which Nalcor’s analysis looked only at current technology and systems versus factoring in developing technology; ▪ a review of Nalcor’s assumptions regarding the price of oil till 2067, since the analysis provided was particularly sensitive to this variable; ▪ a review of Nalcor’s estimates of domestic demand growth (including the various projections to 2027 in the EIS (2007, 2008, 2009 and the 0.8 percent 	<p>Newfoundland/Labrador and Nalcor</p>		



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<p>annual growth to 2067 provided at the hearing);</p> <ul style="list-style-type: none"> ▪ Nalcor's assumptions and analysis with respect to demand management programs (compare Nalcor's conservative targets to targets and objectives of similar programs in other jurisdictions and consider the specific recommendations, including the use of incentives to curtail electric base board heating, from Helios Corporation, among others); ▪ the suggestion made by the Helios Corporation that an 800 MW wind farm on the Avalon Peninsula would be equivalent to Muskrat Falls in terms of supplying domestic needs, could be constructed with a capital cost of \$2.5 billion, and would have an annual operating cost of \$50 million and a levelized cost of power of 7.5 cents per kilowatt-hour; ▪ whether natural gas could be a lower cost option for Holyrood than oil; and ▪ potential for renewable energy sources on the Island (wind, small scale hydro, tidal) to supply a portion of Island demand. 			
<p>RECOMMENDATION 4.3 Integrated Resource Planning</p> <p>The Panel recommends that the Government of Newfoundland and Labrador and Nalcor consider using Integrated Resource Planning, a concept successfully used in other jurisdictions.</p> <p>Such an approach would involve interested stakeholders and look simultaneously at demand and supply solutions and alternative uses of resources over the medium and</p>	<p>Government of Newfoundland/Labrador and Nalcor</p>		



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long term.			
Recommendation 4.4 Project sequencing and applying lessons learned The Panel recommends that, if the Project is approved, and if for any reason construction of the Gull Island portion of the Project occurs before Muskrat Falls, Nalcor should be expected to apply the lessons learned from the construction of Gull Island to the construction of Muskrat Falls.	Nalcor		
RECOMMENDATION 4.5 Full clearing of the Muskrat Falls reservoir The Panel recommends that, if the Project is approved, Nalcor be required to apply its 'full clearing' reservoir preparation option to the Muskrat Falls reservoir.	Nalcor		
RECOMMENDATION 4.6 Preparation approach for Gull Island reservoir The Panel recommends that, if the Project is approved, the reservoir preparation approach for the Gull Island reservoir be finalized and approved by the provincial Department of Natural Resources at the time of the sanction decision for Gull Island. The approach should take into account lessons learned from the preparation of the Muskrat Falls reservoir and should make all reasonable effort to increase	Department of Natural Resources		



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<p>harvested volumes above those currently projected by Nalcor under its 'partial clearing' option for the Gull Island reservoir.</p>			
<p>RECOMMENDATION 4.7 Utilization of merchantable timber</p> <p>The Panel recommends that, if the Project is approved, Nalcor be required to ensure utilization of both the harvested timber from reservoir preparation and the merchantable wood taken from the reservoir as part of its 'trash and debris' removal program after impoundment. Nalcor would retain the right to determine how this would be achieved, but should work with relevant Provincial Government departments and third party commercial interests to identify options.</p>	Nalcor		
<p>RECOMMENDATION 5.1 Use of best available technology</p> <p>The Panel recommends that, if the Project is approved, Nalcor be required to implement its mitigation commitments to minimize air pollution, noise and greenhouse gas emissions resulting from the Project. In addition, Nalcor should be required to use best available technology for any new construction and harvesting equipment purchased for the Project. This means that any new equipment purchased</p>	Nalcor		



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<p>after Project approval should be required to meet the highest current emissions standards for such equipment, even if such standards are above current regulatory requirements.</p>			
<p>RECOMMENDATION 5.2 Backing up intermittent renewable energy The Panel recommends that, if the Project is approved, Nalcor be required to make all reasonable efforts to maximize the potential to utilize power from the Project to back-up wind power and other intermittent renewable sources of electricity. The results of Nalcor's efforts should be reported to the public through its annual report.</p>	Nalcor		
<p>RECOMMENDATION 5.3 Displacement of high greenhouse gas energy sources The Panel recommends that, if the Project is approved, Nalcor be required to take all reasonable steps to ensure that power from the Project is used to displace energy from high greenhouse gas emission sources and does not displace demand management, conservation, efficiency, and the generation of power from renewable, low greenhouse gas emission energy sources. The results of Nalcor's efforts should be reported to the public through its annual report.</p>	Nalcor		



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<p>RECOMMENDATION 5.4 Atmospheric monitoring</p> <p>The Panel recommends that, if the Project is approved and in addition to its monitoring commitments, Nalcor should carry out the following monitoring programs using methodologies approved by federal and provincial regulators:</p> <ul style="list-style-type: none"> ▪ monitor greenhouse gas emissions related to construction; ▪ monitor greenhouse gas emissions related to operation; ▪ track the displacement of greenhouse gas emissions in the various markets for Project power and report annually based on transparent methodologies approved by federal and provincial regulators, taking into account relevant issues identified by the Panel; and ▪ work with appropriate government agencies to ensure that there are active climate change monitoring programs on appropriate rivers in Labrador not affected by the Project, so that there is a better chance to separate Project impacts from climate change impacts based on local weather data collected within the Project area. 	Nalcor		
<p>RECOMMENDATION 6.1 Timing of reservoir impoundment</p> <p>The Panel recommends that, if the Project is approved, Fisheries and Oceans Canada require Nalcor to carry out impoundment of both the Muskrat Falls and Gull Island</p>	Fisheries and Oceans Canada and Nalcor		



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<p>reservoirs during the period mid-July to the end of September, and to prepare a detailed mitigation plan for approval by Fisheries and Oceans Canada. The mitigation plan should include information on how the effects of dewatering would be monitored, thresholds to trigger further mitigation, and identification of specific adaptive management measures and how they would be applied.</p>			
<p>RECOMMENDATION 6.2 Environmental flow standards The Panel recommends that, if the Project is approved, the provincial Department of Environment and Conservation, in consultation with Fisheries and Oceans Canada, Nalcor, Churchill Falls (Labrador) Corporation Limited, and Aboriginal groups and stakeholders, develop environmental flow standards for the lower Churchill River with respect to flows (magnitude, frequency, duration, timing, and rate of change) designed to promote the maintenance of ecological functions and the conservation of riparian and fish habitat. The environmental flow standards should be incorporated by regulation under appropriate provincial legislation and acknowledged in the Water Management Agreement. The Panel further suggests that the Department of Environment and Conservation consider developing environmental flow standards for the upper Churchill River, recognizing the</p>	<p>Department of Environment & Conservation; Fisheries and Oceans Canada; Nalcor; CF(L)Co; and Aboriginal groups and stakeholders</p>		



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importance of addressing the entire watershed as an integrated system.			
RECOMMENDATION 6.3 Erosion and sedimentation prevention The Panel recommends that, if the Project is approved, Nalcor be required to prepare an erosion and sedimentation prevention strategy including the use of 15-metre vegetated buffer areas during reservoir preparation, best practices at all construction and cleared areas, and specified adaptive management measures to be applied should these mitigation measures fail.	Nalcor		
RECOMMENDATION 6.4 Mitigating entrainment effects The Panel recommends that, if the Project is approved, Fisheries and Oceans Canada require Nalcor to take the following steps before receiving a Section 35(2) authorization with respect to potential entrainment losses: (a) carry out further baseline sampling at Gull Island to verify both juvenile and adult fish movements in this area; and (b) prepare a mitigation and adaptive management strategy that establishes thresholds for further action, and identifies what adaptive measures would be taken when, and for what species. The strategy should also address compensation measures should it become apparent that high losses of a specific species are	Fisheries and Oceans Canada		



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inevitable.			
<p>RECOMMENDATION 6.5 Pilot study for methylmercury mitigation through soil removal</p> <p>The Panel recommends that Natural Resources Canada, in consultation with Nalcor and, if possible, other hydroelectricity developers in Canada, carry out a pilot study to determine (a) the technical, economic and environmental feasibility of mitigating the production of methylmercury in reservoirs by removing vegetation and soils in the drawdown zone, and (b) the effectiveness of this mitigation measure. The pilot study should take place in a location where the relevant parameters can be effectively controlled (i.e. not in the Lower Churchill watershed) and every effort should be made to complete the pilot before sanction decisions are made for Gull Island. If the results of the pilot study are positive, Nalcor should undertake to employ this mitigation measure in Gull Island to the extent possible and monitor the results.</p>	<p>Natural Resources Canada and Nalcor and if possible other hydroelectricity developers in Canada</p>		
<p>RECOMMENDATION 6.6 Fish habitat compensation</p> <p>The Panel recommends that, if the Project is approved, Fisheries and Oceans Canada require Nalcor to:</p> <ul style="list-style-type: none"> prepare a detailed fish habitat compensation plan in consultation with stakeholders and Aboriginal groups that addresses to the extent possible the 	<p>Fisheries and Oceans Canada</p>		<p>Nalcor should address this issue through the consultation activities to be implemented by the Aboriginal Community Liaison Team.</p>



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<p>likely interactions between species and life stages, including predator-prey relationships and also the potential to replace tributary-type habitats;</p> <ul style="list-style-type: none"> ▪ prepare a habitat monitoring plan including thresholds for further action and identified adaptive management measures; ▪ implement the proposed plan, documenting the process; ▪ evaluate the extent to which new, stable habitat has been created, its use and productivity; and ▪ apply any lessons learned from implementing the Muskrat Falls compensation plan to the proposed Gull Island compensation works. <p>If, after all feasible adaptive management measures have been applied, Fisheries and Oceans Canada determines that there has been a significant shortfall in the amount of habitat successfully created and maintained, compared to the original proposal, Nalcor should be required to compensate by carrying out habitat compensation works in other watersheds in Labrador. Preference should be given to remediation and enhancement in areas adversely affected by the Churchill Falls project.</p>			
<p>RECOMMENDATION 6.7 Assessment of downstream effects</p> <p>The Panel recommends that, if the Project is approved and before Nalcor is permitted to begin impoundment, Fisheries and Oceans Canada require Nalcor to carry out a</p>	<p>Fisheries and Oceans Canada</p>		<p>Nalcor should address this issue through the consultation activities to be implemented by the Aboriginal Community Liaison Team.</p>



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<p>comprehensive assessment of downstream effects including:</p> <ul style="list-style-type: none"> ▪ identifying all possible pathways for mercury throughout the food web, and incorporating lessons learned from the Churchill Falls project; ▪ baseline mercury data collection in water, sediments and biota, (revised modelling taking into account additional pathways, and particularly mercury accumulation in the benthos) to predict the fate of mercury in the downstream environment; ▪ quantification of the likely changes to the estuarine environment associated with reduction of sediment and nutrient inputs and temperature changes; and ▪ identification of any additional mitigation or adaptive management measures. <p>The results of this assessment should be reviewed by Fisheries and Oceans Canada and by an independent third-party expert or experts, and the revised predictions and review comments discussed at a forum to include participation by Aboriginal groups and stakeholders, in order to provide advice to Fisheries and Oceans Canada on next steps.</p>			
<p>RECOMMENDATION 6.8 Published analysis of downstream effects over time</p> <p>The Panel recommends that, if the Project is approved, Nalcor contribute to the overall knowledge about the effects of hydroelectric projects in northern regions by ensuring</p>	Nalcor		



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<p>that a longitudinal analysis of the effects of the Project on the downstream environment (Goose Bay and Lake Melville) over an appropriate time period, including both mercury transport and bioaccumulation and other ecological parameters, is published in a peer-reviewed journal or the equivalent. The Panel suggests that Nalcor consider collaborating with an appropriate independent research organization to carry out this recommendation by providing knowledge, data and financial resources.</p>			
<p>RECOMMENDATION 6.9 Development of the aquatic monitoring program</p> <p>The Panel recommends that, if the Project is approved, Fisheries and Oceans Canada require Nalcor to organize a workshop with third-party facilitation and invited participation by Aboriginal groups, stakeholder organizations, knowledgeable local people, and independent experts from academic or equivalent organizations to review and advise on a detailed draft monitoring plan.</p>	<p>Fisheries and Oceans Canada</p>		<p>Nalcor should address this issue through the consultation activities to be implemented by the Aboriginal Community Liaison Team.</p>
<p>RECOMMENDATION 7.1 Wetland compensation plan</p> <p>The Panel recommends that, if the Project is approved, Nalcor be required to develop a detailed wetland compensation plan in consultation with Environment</p>	<p>Nalcor</p>		<p>Nalcor should address this issue through the consultation activities to be implemented by the Aboriginal Community Liaison Team.</p>



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<p>Canada, the provincial Department of Environment and Conservation, Aboriginal groups and appropriate stakeholders. The plan should set appropriate goals for the re-establishment of wetlands taking into account the purpose served by each type of wetland in the context of the surrounding ecosystem.</p>			
<p>RECOMMENDATION 7.2 Riparian compensation plan</p> <p>The Panel recommends that, if the Project is approved, Fisheries and Oceans Canada require Nalcor to develop a detailed riparian habitat compensation plan in consultation with Fisheries and Oceans Canada, the provincial Department of Environment and Conservation, Aboriginal groups and appropriate stakeholders, that looks closely at water levels and variations in the levels needed to ensure healthy and resilient riparian habitat and coordinates with the environmental flow standards referenced in recommendation 6.2.</p>	<p>Fisheries and Oceans Canada</p>		<p>Nalcor should address this issue through the consultation activities to be implemented by the Aboriginal Community Liaison Team.</p>
<p>RECOMMENDATION 7.3 Recovery strategies for endangered species</p> <p>The Panel recommends that, if the Project is approved, federal and provincial governments make all reasonable efforts to ensure that recovery strategies are in place and critical habitat is identified for each listed species found in the assessment area before a final decision is made about</p>	<p>Federal and Provincial Governments</p>		



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<p>the effects of the Project on those species. Compliance with federal and provincial species protection legislation should be seen as a minimum standard. In fairness to Nalcor, this work should be given the priority needed to ensure that the Project decision is not unduly delayed. A final Project decision should only be made once government decision makers are satisfied that the recovery of listed species would not be compromised by the Project. Where Environment Canada is relying on provincial efforts to fulfill its obligations under the safety net provisions of the federal <i>Species at Risk Act</i>, before a federal decision is made about the Project it should satisfy itself that the provincial efforts for any species at risk are sufficient for its recovery and will not be compromised by the Project.</p>			
<p>RECOMMENDATION 7.4 Compliance with species at risk legislation</p> <p>The Panel recommends that, if the Project is approved, Nalcor should work with federal and provincial departments responsible for species at risk legislation to ensure all Project-related activities comply with restrictions and prohibitions against harassment, disturbance, injuring or killing of listed species or destroying and disturbing their residence.</p>	Nalcor		



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<p>RECOMMENDATION 7.5 Road construction and decommissioning</p> <p>The Panel recommends that, if the Project is approved, the provincial Department of Natural Resources require Nalcor to minimize road construction outside the reservoirs, by locating new roads inside the impoundment area as much as possible. Any new roads proposed by Nalcor to be located outside the impoundment areas should be carefully reviewed by the Forestry Branch of the Department of Natural Resources and only approved if there is no reasonable alternative. In order to ensure that conservation objectives are met, all temporary roads outside the reservoir should be decommissioned as soon as possible to the satisfaction of the provincial Department of Environment and Conservation.</p>	Department of Natural Resources		
<p>RECOMMENDATION 7.6 Recovery of the Red Wine Mountain caribou herd</p> <p>The Panel recommends that, if the Project is approved, the provincial Department of Environment and Conservation ensure that adequate resources are available so that all reasonable efforts to ensure the recovery of the Red Wine Mountain caribou herd are taken. In addition, the Department should require Nalcor to play an enhanced role in the recovery process for the Red Wine Mountain caribou herd by putting resources into the process for research and</p>	Department of Environment and Conservation		



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recovery efforts and to participate actively in the overall effort to ensure the recovery of the caribou herd.			
RECOMMENDATION 7.7 Management of the George River caribou herd The Panel recommends that, if the Project is approved, the provinces of Quebec and Newfoundland and Labrador, Environment Canada and all interested Aboriginal communities initiate a dedicated range-wide joint management program for the George River caribou herd, and through this program cooperatively carry out a comprehensive cumulative effects assessment of the impact of human activities on the herd to be updated periodically as required.	Provinces of Quebec and Newfoundland and Labrador; Environment Canada; and all interested Aboriginal communities		
RECOMMENDATION 7.8 Effect of reservoir preparation activities on migratory birds The Panel recommends that, if the Project is approved, Nalcor and Environment Canada negotiate an agreement prior to reservoir preparation regarding whether and how clearing could proceed between May and July without violating the <i>Migratory Birds Convention Act</i> . To initiate this process, Nalcor should be required to submit a plan describing how it would carry out clearing activities during this period in compliance with the <i>Migratory Birds</i>	Nalcor and Environment Canada		



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<i>Convention Act.</i>			
RECOMMENDATION 7.9 Vegetation control The Panel recommends that, if the Project is approved, Nalcor be required to restrict the use of chemical herbicides to areas where alternative vegetation control is not reasonably possible. Approval of the use of herbicides should only be granted after Nalcor has submitted an overall vegetation control plan to the provincial Department of Environment and Conservation, demonstrating that all alternatives have been adequately explored and the use of non-chemical approaches maximized.	Nalcor		
RECOMMENDATION 7.10 Monitoring, follow-up and adaptive management for the terrestrial environment The Panel recommends that, if the Project is approved and in addition to its monitoring commitments listed in Chapter 7, Terrestrial Environment, Nalcor should carry out the following monitoring programs: <ul style="list-style-type: none"> ▪ monitor the effectiveness of riparian and wetland habitat compensation work, including the effect on wetland sparrows; ▪ monitor the response of the Red Wine Mountain caribou herd including any population changes through the construction phase and in the early part of the operation phase; 	Nalcor		



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<ul style="list-style-type: none"> ▪ monitor wolf predation of caribou, particularly the Red Wine Mountain herd; monitor interactions of the George River caribou herd with Project activities and facilities and identify any impacts; ▪ monitor ashkui formation in the Project area; ▪ monitor direct and indirect impacts on waterfowl, such as waterfowl adjustment to changes in riparian habitat, and changes in the location and formation of ashkui; ▪ confirm the presence of and monitor the impact of the Project on salamanders and spring peepers; ▪ develop a detailed mitigation and monitoring plan for all listed species for approval by the provincial Department of Environment and Conservation; ▪ confirm the presence outside the flood zone of the eight plant species identified by Nalcor as unique to the river valley plus the two additional species listed by the Department of Environment and Conservation (marsh horsetail and hidden fruit bladderwort) and develop a detailed mitigation plan for these plant species for approval by the Department; ▪ monitor the impact of the Project on furbearers, small game, small mammals, and black bears; and ▪ collaborate with the Department of Environment and Conservation to develop an appropriate approach to monitor pine marten in areas affected by the Project where there is no trapping activity. 			
RECOMMENDATION 8.1 Trapping compensation program	Nalcor		



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<p>The Panel recommends that, if the Project is approved, Nalcor be required to establish a compensation program for all bona fide trappers along the lower Churchill River, without requiring proof of ten years' use as an entry point. Instead, compensation should be commensurate with the total extent of trapping activity during the previous ten years, as shown by the recorded income attributable to the Project area. Compensation should be awarded within six months after an individual trapper has established eligibility.</p>			
<p>RECOMMENDATION 8.2 Mud Lake ice bridge mitigation The Panel recommends that, if the Project is approved, Nalcor, the Government of Newfoundland and Labrador and the Mud Lake Improvement Committee negotiate an agreement to address how any future adverse changes to the ice bridge that would lengthen the existing period of time when residents are unable to cross the river by boat or snowmobile would be assessed and mitigated. Alternative transportation options should be provided if travel across the river is prevented during the freeze-up or break-up for periods in excess of two weeks. The selected solution should adequately meet the residents' needs for everyday and emergency travel and should respect the character of the community. Road access should not be imposed on the community as a solution to address ice bridge changes without its consent. The primary onus to cover the costs of</p>	<p>Nalcor; Government of Newfoundland/Labrador; and Mud Lake Improvement Committee</p>		



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this mitigation should be placed on Nalcor. The agreement should also address the role of the Province in mitigating any cumulative effects caused by climate change.			
RECOMMENDATION 8.3 Navigation during impoundment The Panel recommends that, if the Project is approved, Nalcor be required to develop a mitigation plan in consultation with the Mud Lake Improvement Committee to address temporary transportation difficulties during reservoir impoundment periods. If transportation is impeded, Nalcor should provide and pay for alternative transportation that minimizes inconvenience to the residents.	Nalcor		
RECOMMENDATION 8.4 Lower Churchill navigation mitigation and monitoring plan The Panel recommends that, if the Project is approved, Transport Canada require Nalcor to develop a mitigation and monitoring plan for each reservoir, in consultation with river users, to address navigation issues on the river, including both reservoirs and the downstream portion of the main stem. The plan would address (a) navigation issues during the construction and impoundment periods, (b) provision of boat launches and portages, (c) identification of areas that need to be cleared before impoundment to	Transport Canada		



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create safe shoreline access areas for small boats, (d) management of the stick-up zones, including how and when Nalcor would manually remove trees left standing three years after impoundment, (e) management of trash and debris in the reservoirs, (f) charts to show navigational hazards, signage and information, and (g) monitoring and specific adaptive management measures to address any navigational problems downstream from Muskrat Falls.			
RECOMMENDATION 8.5 Allowing local forestry operators to clear additional areas The Panel recommends that, if the Project is approved, the provincial Department of Natural Resources require Nalcor to allow local forestry operators to clear timber from areas not otherwise scheduled to be cleared, provided they can demonstrate a safe approach. Nalcor should be required to pay the stumpage fees for the forestry operators salvaging the extra timber.	Department of Natural Resources		
RECOMMENDATION 9.1 Noise and dust management The Panel recommends that, if the Project is approved, and to avoid disturbance of persons carrying out traditional land and resource use activities, Nalcor be required to monitor and manage construction traffic and borrow pit activities to minimize dust problems, noise and sleeping disturbance for occupants of cabins and camps along the roads.	Nalcor		



Recommendation	Responsibility	Accept/Accept Intent/Reject	Comments
RECOMMENDATION 9.2 Relocation of Canada yew The Panel recommends that, if the Project is approved, Nalcor be required to collaborate with Innu Elders on where and how to relocate Canada yew plants, conduct regular field visits with Elders for assessment, and employ any adaptive management procedures required to maintain a stable population of the plant.	Nalcor		
RECOMMENDATION 9.3 Community level land and resource use monitoring The Panel recommends that, if the Project is approved, Nalcor involve all Aboriginal groups in the design and implementation of its proposed community land and resource use monitoring program for the duration of the construction period to ensure that parameters of importance to these groups and Traditional Knowledge are included.	Nalcor		Nalcor should address this issue through the consultation activities to be implemented by the Aboriginal Community Liaison Team.
RECOMMENDATION 11.1 Involvement of Aboriginal groups in the management and protection of historic and archaeological resources The Panel recommends that, if the Project is approved, Nalcor, in collaboration with the Provincial Archaeology Office, establish and support a program to involve all three Labrador Aboriginal groups in (a) the documentation and interpretation of known historic and archaeological sites	Nalcor and Provincial Archaeology Office		Nalcor should address this issue through the consultation activities to be implemented by the Aboriginal Community Liaison Team.



Recommendation	Responsibility	Accept/Accept Intent/Reject	Comments
<p>and artifacts and (b) the process to be followed in the case of inadvertent discoveries of previously unknown sites and artifacts during construction, including notification of the three groups. Nalcor should also give consideration to inviting participation by interested Aboriginal communities in Quebec. Nalcor should share with Aboriginal groups the results of its work on the monitoring of historic and archeological resources to be compiled and provided annually to the Provincial Archaeology Office.</p>			
<p>RECOMMENDATION 11.2 Commemoration initiatives The Panel recommends that, if the Project is approved, Nalcor work in collaboration with local communities and Aboriginal groups to (a) identify sites, artifacts and intangible elements (including portages, traplines, trails and personal stories) to be documented and commemorated, (b) determine how commemoration should occur and (c) implement specific commemorative initiatives (such as plaques and story boards) at appropriate locations in communities and throughout the river valley. Local heritage organizations could benefit by receiving funding to undertake part of this work and to implement education and interpretation programs.</p>	Nalcor		<p>Nalcor should address this issue through the consultation activities to be implemented by the Aboriginal Community Liaison Team.</p> <p>Potential measures could include commemorative plaques and videos in recognition of Aboriginal uses of the land and significant historical and cultural places, people and events.</p>
<p>RECOMMENDATION 11.3 – Naming Project-related features</p>	Government of Newfoundland/Labrador		<p>Nalcor should address this issue through the consultation activities to</p>



Recommendation	Responsibility	Accept/Accept Intent/Reject	Comments
<p>The Panel recommends that, if the Project is approved, the Government of Newfoundland and Labrador develop an approach to the naming of Project-related features in consultation with local communities and Aboriginal groups that recognizes the importance of place names in Aboriginal cultures.</p>			<p>be implemented by the Aboriginal Community Liaison Team.</p>
<p>RECOMMENDATION 12.1 Early candidate selection and training</p> <p>The Panel recommends that, if the Project is approved, Nalcor take a more proactive approach to providing early and specific training programs to certain Labrador candidates. This approach could include measures such as early candidate selection, conditional letters of intended employment, and, on-the-job training at other Nalcor operations or with other entities with which Nalcor has influence.</p>	Nalcor		
<p>RECOMMENDATION 12.2 Workplace attachment for apprenticeship graduates</p> <p>The Panel recommends that, if the Project is approved, Nalcor commit to providing workplace attachment for both first and second year graduates of apprenticeship programs to the maximum extent possible.</p>	Nalcor		



Recommendation	Responsibility	Accept/Accept Intent/Reject	Comments
<p>RECOMMENDATION 12.3 Training to ‘journeyperson’ level in community of residence</p> <p>The Panel recommends that, if the Project is approved, relevant provincial departments commit to explore with Nalcor, other educational entities and agencies and relevant communities in Labrador, how to implement to the extent practical, training to ‘journeyperson’ level in the community of residence.</p>	<p>Relevant provincial departments</p>		
<p>RECOMMENDATION 12.4 Address wage subsidy stigma</p> <p>The Panel recommends that, if the Project is approved, to the extent that wage subsidies might be available and used for new job entrants, Nalcor implement an education and communications program to address and remove the stigma that some might feel is associated with such a practice.</p>	<p>Nalcor</p>		
<p>RECOMMENDATION 12.5 Preparing for participation in wage economy</p> <p>The Panel recommends that, if the Project is approved, Nalcor develop and implement, in consultation with Aboriginal groups, an appropriate orientation and information process to assist prospective employees who might have little or no experience of participation in a wage economy. Nalcor should also expand training programs to</p>	<p>Nalcor</p>		<p>Nalcor should mention that the IBA signed with Innu Nation contains specific terms regarding programs to facilitate the integration of Aboriginal workers. Nalcor could plan to include Quebec Innu workers in such programs and clarify these inclusions in the planned measures.</p>



Recommendation	Responsibility	Accept/Accept Intent/Reject	Comments
include, in addition to skills training, training to equip potential Aboriginal employees to deal with various financial, social and cultural challenges as a result of employment in the construction industry. In consultation with Aboriginal groups, Nalcor should also consider providing additional money management programs such as payroll saving schemes.			
RECOMMENDATION 12.6 Continuation of Labrador Aboriginal Training Partnership The Panel recommends that, if the Project is approved, Nalcor support the continuation of the Labrador Aboriginal Training Partnership beyond 2012, including making a financial contribution if required to both enable current participants to complete their training and to meet additional training requirements.	Nalcor		Nalcor should address this issue through the consultation activities to be implemented by the Aboriginal Community Liaison Team.
RECOMMENDATION 12.7 Employment outreach to Quebec Aboriginal communities The Panel recommends that, if the Project is approved, Nalcor initiate an employment outreach program for interested Aboriginal groups in Quebec; such a program could include among other measures, a specific recruitment program, transportation assistance from Sept-Iles, and measures to address social and cultural issues including any associated language barriers.	Nalcor		Nalcor should elaborate on its commitment to publicly post employment, procurement and contracting opportunities, and further commit to creating a permanent communication channel with local employment and economic development services. These activities could be taken on by the Aboriginal Community Liaison Team,



Recommendation	Responsibility	Accept/Accept Intent/Reject	Comments
			<p>which should be bilingual and available to travel to communities to meet workers and business people interested in the project. Nalcor should publish press releases, information bulletins or radio messages providing regular updates on the Project and opportunities for workers and businesses.</p> <p>Nalcor should reinforce its strategy by offering capacity-building to help Quebec Aboriginal Communities work on the Project. The Panel makes some proposals that should be analyzed by Nalcor.</p>
<p>RECOMMENDATION 12.8 Quantitative targets for goods and services</p> <p>The Panel recommends that, if the Project is approved, the concept of quantitative objectives or targets be applied to the provision of goods and services, with targets established both for the province as a whole, and for Labrador.</p>			
<p>RECOMMENDATION 12.9 Enhanced supplier development program</p> <p>The Panel recommends that, if the Project is approved, Nalcor enhance its supplier development program by</p>	Nalcor		<p>If implemented, Nalcor should include the Enhanced supplier development program in the information to be disseminated by the Aboriginal</p>



Recommendation	Responsibility	Accept/Accept Intent/Reject	Comments
<p>implementing the following measures: (a) establish the Labrador Business Opportunities Committee and appoint the full time Coordinator in Happy Valley-Goose Bay as soon as possible, (b) ensure the Coordinator (a Nalcor employee) has sufficient seniority within the organization to influence relevant procurement decisions and has full access to all procurement information and related decision making, (c) release as soon as possible the list of goods and services required by the Project, with specific indications of time frame, approximate volumes and dollar values or ranges as appropriate, and (d) ensure immediately that all engineering management personnel involved in specifications, bidder prequalification, and procurement are fully aware of Nalcor's commitments towards maximizing benefits in this area and act accordingly.</p>			Community Liaison Team.
<p>RECOMMENDATION 12.10 Update quantitative targets at time of sanction</p> <p>The Panel recommends that, if the Project is approved, Nalcor update at the time of Muskrat Falls sanction, the quantitative objectives or targets and the detailed list of goods and services required by the Project. Further, that this update be done in consultation with interested parties and the information be provided for Muskrat Falls construction and, to the extent possible, for the Project as a</p>	Nalcor		



Recommendation	Responsibility	Accept/Accept Intent/Reject	Comments
whole.			
RECOMMENDATION 12.11 Transparent bidding process The Panel recommends that, if the Project is approved, Nalcor implement a transparent bidding process that ensures that bidders are fully aware of the decision-making process, unsuccessful bidders can find out the reasons why and thereby improve, and Nalcor's commitments and programs apply and are enforced by all its contractors, sub-contractors and suppliers.	Nalcor		
RECOMMENDATION 12.12 Modifications to the Benefits Strategy The Panel recommends that, if the Project is approved, Nalcor and the provincial Department of Natural Resources modify two overall provisions of the Benefits Strategy. The first is to ensure that both the monthly reports on employment and goods and services and the quarterly reports on compliance are publically available and not restricted by the confidentiality provisions of Nalcor's legislation. The second is to remove the provision that allows the Minister to modify the benefits targets and other commitments regarding this Project at the Minister's sole discretion.	Nalcor and Department of Natural Resources		



Recommendation	Responsibility	Accept/Accept Intent/Reject	Comments
<p>RECOMMENDATION 13.1 Sheshatshiu social effects mitigation</p> <p>The Panel recommends that, if the Project is approved, Innu Nation, Sheshatshiu Innu Band Council, Nalcor, the provincial Department of Health and Community Services, and relevant federal government departments develop a Memorandum of Understanding with regard to identifying and implementing (a) mechanisms to prevent the exacerbation of existing social problems and (b) mitigation measures such as mental health and addictions services and family support required to address any Project-related increases in social problems. Each party would bring to the table its relevant knowledge and resources. In the case of Innu Nation and Sheshatshiu Innu Band Council, this would include any provisions of the Impacts and Benefits Agreement component of the <i>Tshash Petapen</i> Agreement that directly address this issue. In the case of Nalcor, its role would be to adjust hiring, employment and employee assistance arrangements where possible and appropriate to assist or reinforce mitigation. The federal and provincial governments should provide resources to discharge their responsibilities in these areas.</p>	<p>Innu Nation; Sheshatshiu Innu Band Council; Nalcor; Department of Health and Community Services; and relevant federal government departments</p>		
<p>RECOMMENDATION 13.2 Social effects needs assessment and research</p>	<p>Department of Health and Community</p>		



Recommendation	Responsibility	Accept/Accept Intent/Reject	Comments
<p>The Panel recommends that, if the Project is approved, the provincial Department of Health and Community Services, in consultation with Aboriginal groups, and appropriate government and community agencies from the Upper Lake Melville area, conduct a social effects needs assessment, including an appropriately resourced participatory research component, that would determine the parameters to monitor, collect baseline data, and provide recommendations for social effects mitigation measures and an approach to on-going monitoring. It is expected that Innu Nation would be a participant in the research and that the results would inform and enhance the social effects mitigation measures suggested in Recommendation 13.1. The results of the needs assessment would be documented in a public report and, subject to the agreement of participants, the results of the research would be published in a peer-reviewed journal.</p>	<p>Services; Aboriginal Groups; and appropriate government and communities agencies from Upper Lake Melville area</p>		
<p>RECOMMENDATION 13.3 Worksite measures to address addictions issues</p> <p>The Panel recommends that, if the Project is approved, Nalcor conduct careful monitoring of the effectiveness of the policy of controlled access to alcohol at the accommodation camps and provide professional addictions counselling to employees.</p>	<p>Nalcor</p>		<p>Nalcor should mention that it has addressed the issue of worksite measures to address addiction issues in the IBA signed with Innu Nation. Nalcor should then add that the measures that will be applied to all Aboriginal workers.</p> <p>Nalcor should consider hiring an Aboriginal Social Worker whose role</p>



Recommendation	Responsibility	Accept/Accept Intent/Reject	Comments
			is to welcome Aboriginal workers, refer them to specialists as needed and ensure a close follow-up of their social, health and safety requirements. The Social Worker should be well-qualified and be chosen from an Aboriginal group that does not entertain rivalries with other communities.
RECOMMENDATION 13.4 Variety of work schedules The Panel recommends that, if the Project is approved, Nalcor offer a variety of work schedules, and require the same of its contractors, to accommodate different groups of workers and to assist in meeting its employment goals, particularly for Aboriginal employees and women.	Nalcor		Nalcor should reiterate that it already has plans to offer various work schedules in order to address this concern expressed by several Aboriginal groups.
RECOMMENDATION 13.5 Health and social services The Panel recommends that, if the Project is approved, the provincial Department of Health and Community Services formally commit to provide the human resources required to address any Project-related increases in the demand for mental health, addictions and other health and social services at the Labrador Health Centre, as identified in the needs assessment. Nalcor's contribution to mitigation measures to address this should be clarified through a Memorandum of Understanding with the Labrador-Grenfell	Department of Health and Community Services		Nalcor should establish a partnership with the Labrador Health Center to delegate a special resource in charge of welcoming and providing health and social care to Aboriginal workers. The special resource should be well-qualified and be chosen from an Aboriginal group that does not entertain rivalries with other communities.



Recommendation	Responsibility	Accept/Accept Intent/Reject	Comments
Regional Health Authority.			
<p>RECOMMENDATION 13.6 Capacity agreement with Happy Valley-Goose Bay</p> <p>The Panel recommends that, if the Project is approved, the Government of Newfoundland and Labrador and Nalcor negotiate a capacity agreement with the Town of Happy Valley-Goose Bay to provide financial resources to increase the Town's capacity to address additional administrative demands related to the Project. The time period for the agreement would be negotiated by the parties and should relate to the needs expected at different stages of the Project. The resources would be intended to enable the Town to:</p> <ul style="list-style-type: none"> ▪ establish baseline data on infrastructure capacity and use prior to the start of construction; ▪ monitor Project-related infrastructure effects throughout the construction period of the Project and identify needed mitigation; ▪ prepare, publicize and update on a regular basis, emergency preparedness plans to address the possibility of a catastrophic flood event; prepare a low income housing strategy; and address issues related to Project-related in-migration and the potential economic downturn at the end of the construction phase, and any other Project-related effects within the Town, not otherwise mitigated. 	Government of Newfoundland/Labrador and Nalcor		



Recommendation	Responsibility	Accept/Accept Intent/Reject	Comments
<p>RECOMMENDATION 13.7 Funding for infrastructure mitigation</p> <p>The Panel recommends that, prior to Project sanction, a binding and firm commitment be given by Nalcor and the Government of Newfoundland and Labrador that sufficient funds and resources be made available to fully mitigate Project-related adverse impacts on infrastructure in Happy Valley-Goose Bay.</p>	<p>Nalcor and Government of Newfoundland/Labrador</p>		
<p>RECOMMENDATION 13.8 Low-income housing strategy</p> <p>The Panel recommends that, if the Project is approved, before construction begins, Nalcor support the efforts of the Town of Happy Valley-Goose Bay, relevant federal and provincial departments, and local low-income housing agencies, to develop and implement a strategy to set measurable targets, address the existing low-income housing needs and mitigate the adverse impacts of Project-related in-migration on low-income housing.</p>	<p>Nalcor</p>		
<p>RECOMMENDATION 13.9 Possible requirement for consumption advisories in Goose Bay or Lake Melville.</p> <p>The Panel recommends that, if the Project is approved and the outcome of the downstream mercury assessment (Recommendation 6.7) indicates that consumption</p>	<p>Nalcor</p>		



Recommendation	Responsibility	Accept/Accept Intent/Reject	Comments
<p>advisories would be required for Goose Bay or Lake Melville, Nalcor enter into negotiations prior to impoundment with the parties representing – as appropriate – Goose Bay and Lake Melville resource users. Depending on where the consumption advisories would apply, these could include Aboriginal groups, the Town of Happy Valley-Goose Bay, Mud Lake Improvement Committee, the Town of North West River and the community of Rigolet. The purpose of the negotiations would be to reach agreement regarding further mitigation where possible and compensation measures, including financial redress if necessary. This recommendation would also apply later in the process if the downstream mercury assessment indicated that advisories were not likely, but monitoring subsequently required their application.</p>			
<p>RECOMMENDATION 13.10 Consumption advisory implementation</p> <p>The Panel recommends that, if the Project is approved and fish and seal monitoring indicates that consumption advisories are required, Nalcor:</p> <ul style="list-style-type: none"> ▪ follow Health Canada guidelines regarding the establishment of human mercury hazard quotient levels and fish consumption advisories; ▪ consult with Aboriginal Affairs and Northern Development Canada regarding best practices for the communication of advisories; 	Nalcor		<p>Nalcor should ensure that consumption advisories are transmitted to the appropriate health care services or other authorities in Aboriginal communities.</p> <p>Nalcor's Aboriginal Community Liaison Team should assist in the dissemination of consumption advisories based on acquired knowledge of efficient communication means for each Aboriginal</p>



Recommendation	Responsibility	Accept/Accept Intent/Reject	Comments
<ul style="list-style-type: none"> consult with Aboriginal groups and affected communities regarding an effective approach to the communication and implementation of consumption advisories that ensures that affected communities have an understanding of the quantities and types of fish that can be consumed safely and the health benefits of including fish in one's diet; ensure that notifications of the consumption advisories are placed at regular intervals in easily visible locations along the shorelines of affected water bodies; ensure that consumption advisories are updated as necessary to reflect any changes detected in mercury levels in fish or seal; and provide publicly accessible, up-to-date and accurate information through the internet, radio, newspapers and other means regarding the health risks of mercury and the status of the advisories. 			community.
<p>RECOMMENDATION 13.11 Human health and mercury monitoring</p> <p>The Panel recommends that, if the Project is approved, Nalcor, in collaboration with Health Canada and the provincial Department of Health and Community Services:</p> <ul style="list-style-type: none"> consult with Aboriginal groups and affected communities regarding the approach to be taken to baseline and follow-up mercury testing and the communication of results for each group; and establish baseline human mercury levels in Churchill Falls, Upper Lake Melville communities 	<p>Nalcor and Health Canada and Department of Health and Community Services</p>		<p>Nalcor should address this issue through the consultation activities to be implemented by the Aboriginal Community Liaison Team.</p>



Recommendation	Responsibility	Accept/Accept Intent/Reject	Comments
<p>and Rigolet, with consideration given to offering blood tests as well as hair samples for Innu participants, due to inconsistencies noted in the correlation between hair sample results and dietary consumption.</p> <p>If consumption advisories are required, it is further recommended that Nalcor ensure that a human health mercury monitoring program is established concurrently with the issuing of consumption advisories. This monitoring would continue until five years after the lifting of consumption advisories, or until such time as determined by Health Canada, and would be overseen by the Monitoring and Community Liaison Committee described in Chapter 15.</p>			
<p>RECOMMENDATION 13.12 Dietary surveys</p> <p>The Panel recommends that, if the Project is approved and consumption advisories are required as a result of mercury levels in fish or seal, Nalcor conduct ongoing dietary surveys as an integral part of the mercury monitoring program, including fish, seal, caribou and other country food. Dietary surveys should be conducted concurrently with regular mercury testing in affected communities to determine the effectiveness of the consumption advisories and the overall impact on fish and country food consumption.</p>	Nalcor		<p>Nalcor should ensure the participation of Aboriginal groups in the dietary surveys and in responses to monitoring activities through the activities to be implemented by the Aboriginal Community Liaison Team.</p>



Recommendation	Responsibility	Accept/Accept Intent/Reject	Comments
<p>RECOMMENDATION 13.13 Research on mercury in country food</p> <p>The Panel recommends that, if the Project is approved, the provincial Department of Labrador and Aboriginal Affairs, in consultation with Health Canada and Aboriginal groups, initiate a study of (a) the extent of country food contamination by mercury and other contaminants and (b) human consumption levels of country food, particularly in areas where people are also exposed to mercury in fish, to identify the potential risks to human health in Labrador.</p>	<p>Department of Labrador and Aboriginal Affairs</p>		
<p>RECOMMENDATION 14.1 Emergency preparation for the possibility of a dam failure</p> <p>The Panel recommends that, if the Project is approved, Nalcor be required to:</p> <ul style="list-style-type: none"> ▪ prepare and provide to affected communities updated maps that more clearly show areas that would be flooded following a dam failure; ▪ prepare, in consultation with the relevant communities and appropriate authorities, an Emergency Preparedness Plan, for response in the event of catastrophic dam failure, and emergency response procedures and community evacuation procedures related to a dam failure and subsequent flooding; the Plan should be reviewed every five years; ▪ work with each community that has been identified as being at risk of flooding in the event of a dam 	<p>Nalcor</p>		



Recommendation	Responsibility	Accept/Accept Intent/Reject	Comments
<p>failure to develop evacuation plans, to be completed prior to filling of the reservoirs;</p> <ul style="list-style-type: none"> ▪ work with emergency response providers and assist as appropriate in the event of an evacuation; ▪ implement a flood warning system for Mud Lake and Happy Valley-Goose Bay to be approved by the provincial Department of Environment and Conservation; and ▪ conduct seismographic monitoring in the Project area prior to construction. 			
<p>RECOMMENDATION 14.2 Compensation for losses in the event of a dam failure</p> <p>The Panel recommends that, if the Project is approved, the Government of Newfoundland and Labrador require Nalcor to assume liability on a 'no fault' basis for any loss of life and financial losses incurred because of the destruction of property and belongings and disruption of activities caused by flooding as a result of one or more dams failing on the lower Churchill River. Nalcor should provide guarantees in the form of insurance, bonds or other appropriate measures that individuals, businesses and institutions suffering damage would receive full compensation, the amount to be determined by a neutral third party, regardless of the cause of the dam failure.</p>	<p>Government of Newfoundland/Labrador</p>		



Recommendation	Responsibility	Accept/Accept Intent/Reject	Comments
RECOMMENDATION 14.3 Seismic testing The Panel recommends that, if the Project is approved, Nalcor carry out seismic testing during reservoir filling and apply appropriate mitigation measures in the event of a seismic event related to reservoir filling.	Nalcor		
RECOMMENDATION 15.1 Authorizing regulation The Panel recommends that, if the Project is approved, the Government of Newfoundland and Labrador issue an authorizing regulation or equivalent mechanism that: <ul style="list-style-type: none"> ▪ lists and requires Nalcor to implement all its environmental management commitments in relation to the Project made during the course of the environmental assessment, plus the additional measures recommended by the Panel and accepted by the Government of Newfoundland and Labrador; ▪ lists and requires provincial departments to implement all their environmental management commitments in relation to the Project made during the course of the environmental assessment, plus the additional measures recommended by the Panel and accepted by the Government of Newfoundland and Labrador; ▪ includes a mechanism for updates as required to reflect any additions or changes, including adaptive management strategies that may be required and are not yet identified; ▪ ensures compliance with Environmental Protection 	Government of Newfoundland/Labrador		



Recommendation	Responsibility	Accept/Accept Intent/Reject	Comments
<p>Plans, Emergency Response Plans, Contingency Plans, Occupational Health and Safety Plans, and Environmental Effects Monitoring Plans including those that are implemented through another regulatory instrument and those that are unregulated;</p> <ul style="list-style-type: none"> ▪ requires Nalcor to prepare and publish on the internet an annual report describing its environmental management activities and results, including mitigation, monitoring and adaptive management as appropriate, and related disbursements; ▪ establishes a monitoring and community liaison committee; and ▪ remains in effect for the duration of the construction period and a sufficient period of time thereafter to ensure there is no longer a risk of adverse effects as a result of the Project. 			
<p>RECOMMENDATION 15.2 Federal-provincial joint regulatory plan</p> <p>The Panel recommends that, if the Project is approved, the federal and provincial governments prepare a joint regulatory plan for the Project which outlines their respective regulatory requirements and includes a coordinated approach to areas where there is overlapping or related jurisdiction, and commit to it by signing a Memorandum of Agreement. The regulatory plan should address the regulations, guidelines, standards and criteria</p>	Federal and Provincial Governments		



Recommendation	Responsibility	Accept/Accept Intent/Reject	Comments
<p>to be applied to activities. Each government would appoint a coordinating department or agency to prepare the plan and to produce a joint annual report regarding Nalcor's compliance, any issues or problems that were identified and how they were resolved. This report would be made available to the public through the internet.</p>			
<p>RECOMMENDATION 15.3 Long-term funding for environmental management from Nalcor</p> <p>The Panel recommends that, if the Project is approved, and to the extent that funds are not committed from other sources, Nalcor identify and allocate in its detailed Project budget, financial support for environmental management for the duration of Project construction. The Panel further recommends that Nalcor make a general commitment with a ten-year forecast, to be updated every five years, until such time as there is no longer evidence of ongoing environmental effects resulting from the Project.</p>	Nalcor		
<p>RECOMMENDATION 15.4 Long-term funding for environmental management from government departments</p> <p>The Panel recommends that, if the Project is approved, the governments of Newfoundland and Labrador and Canada make long-term commitments to support annual budget requests by the relevant departments with responsibilities</p>	Governments of Newfoundland/Labrador and Canada		



Recommendation	Responsibility	Accept/Accept Intent/Reject	Comments
<p>for project-related environmental management including socio-economic mitigation commitments. The Panel further recommends that the governments make general commitments with a ten-year forecast, to be updated every five years, until such time as there is no longer evidence of ongoing environmental effects resulting from the Project.</p>			
<p>RECOMMENDATION 15.5 Lower Churchill Project Monitoring and Community Liaison Committee</p> <p>The Panel recommends that, if the Project is approved, prior to the start of construction, the provincial Department of Environment and Conservation appoint a Monitoring and Community Liaison Committee, using a community-based nomination process. Nalcor, through the Department, should provide the Committee with sufficient resources to allow for staff support, expenses and a modest honorarium for non-government participants, acquisition of independent expert advice, and adequate communication with community residents including occasional public forums. The mandate of the Committee would be set out in the Authorizing Regulation and the Federal-Provincial regulatory plan. The Committee would operate throughout the construction period and for the first ten years of the operating period, at which point the continuing need for the Committee should be reassessed by the Department in consultation with the Committee, the communities and</p>	<p>Department of Environment and Conservation</p>		<p>Nalcor should consult Aboriginal Groups, including Quebec Innu Groups, to define the terms of their participation in this Community Liaison Committee.</p> <p>Nalcor should act as a source of information and as a facilitator for the Committee's activities.</p> <p>Nalcor should ensure that the nomination process is led by the local community including Aboriginal groups, while providing information to ensure that all of the Aboriginal groups are invited to participate.</p> <p>The Aboriginal Community Liaison Team should liaise with the Lower Churchill Project Monitoring and Community Liaison Committee.</p> <p>If Aboriginal groups participate in the</p>



Recommendation	Responsibility	Accept/Accept Intent/Reject	Comments
<p>Nalcor. The Committee would:</p> <ul style="list-style-type: none"> provide community feedback and advice to the Department and to Nalcor on relevant issues including Project-specific mitigation, impact monitoring and adaptive management committed to by Nalcor and as recommended by the Panel; be empowered as required to establish subcommittees or working groups to address the key areas of biophysical monitoring and follow-up, enhancing employment and business benefits, and health and social issues; have representation from communities, community-based agencies and non-government organizations, Aboriginal organizations, relevant federal and provincial government departments and Nalcor (ex-officio); and liaise with the public to ensure a transparent approach to addressing public concerns and the communication of monitoring results. 			<p>the Lower Churchill Project Monitoring and Community Liaison Committee, key work areas should be extended to the cultural impacts of the Project, as referred to in recommendation 11.1 on Management and protection of historic and archaeological resources, recommendation 11.2 on Commemoration initiatives and recommendation 11.3 on Naming Project-related features.</p>
<p>RECOMMENDATION 15.6 Project-specific effects monitoring programs</p> <p>The Panel recommends that, if the Project is approved, all Project-specific effects monitoring programs, whether conducted by Nalcor, governments or in combination, include the following elements:</p> <ul style="list-style-type: none"> identification of monitoring objectives and means of achieving verifiable results capable of guiding remedial action; formulation of clearly stated research questions 			



Recommendation	Responsibility	Accept/Accept Intent/Reject	Comments
<p>capable of testing impact predictions;</p> <ul style="list-style-type: none"> ▪ key measurable indicators linking Project activities to outcomes, and threshold or reference levels to identify Project effects; ▪ strategies and protocols for data collection and quality control; ▪ protocols for data compilation, storage, control and access; provision for data analysis and assessment; and ▪ reporting procedures and schedules. 			
<p>RECOMMENDATION 15.7 Adaptive management</p> <p>The Panel recommends that, if the Project is approved, adaptive management for Project specific or cumulative effects, whether conducted by Nalcor, governments, or in combination, include the following components:</p> <ul style="list-style-type: none"> ▪ commitment to a proactive approach to adaptive management; ▪ clearly defined impacts thresholds to clarify where and when adaptive responses would be necessary; ▪ implementation and contingency plans and resources to enable responsive action especially in areas where effect predictions are thought to be uncertain and where predictive errors may have serious consequences; ▪ transparent process for setting and adjusting monitoring and management priorities; and ▪ provision for regular review of adaptive management effectiveness, adjustment of related monitoring and responses to focus on significant 			



Recommendation	Responsibility	Accept/Accept Intent/Reject	Comments
continuing concerns.			
<p>RECOMMENDATION 15.8 Complaints resolution</p> <p>The Panel recommends that, if the Project is approved, before the start of construction, Nalcor develop a complaints resolution process, in consultation with the Monitoring and Community Liaison Committee, to address concerns relating to possible adverse Project effects on individuals, and to be implemented during construction and operations. The process could include the following:</p> <ul style="list-style-type: none"> ▪ easy access for individuals to bring concerns or complaints to Nalcor via a toll-free phone number, website and other appropriate means; ▪ dedicated Nalcor staff support to receive, process and respond to complaints; ▪ a tracking process with response time targets; ▪ third-party adjudication in the event that complaints cannot be otherwise resolved to the satisfaction of both Nalcor and the complainant; and ▪ a system to report on complaints received and how they were resolved 	Nalcor		
<p>RECOMMENDATION 15.9 Environmental review in the event that construction of the second generating facility is delayed</p> <p>The Panel recommends that, if the Project is approved and the construction of the second generating facility and</p>			



Recommendation	Responsibility	Accept/Accept Intent/Reject	Comments
<p>reservoir does not start before the first is completed, the environmental release would expire and terms and conditions contained in the original release would be revisited. The extent of the review required for later release would be the decision of the relevant federal and provincial governments, depending on applicable laws and circumstances at the time.</p>			
<p>RECOMMENDATION 15.10 Local hiring for environmental management work The Panel recommends that, if the Project is approved, where possible, Nalcor hire local people to work on environmental monitoring and mitigation projects to benefit from their local knowledge and to develop local skills and experience in the field of environmental management.</p>	Nalcor		
<p>RECOMMENDATION 15.11 Government response to Panel report The Panel recommends that the federal and provincial governments provide written responses to the Panel report and that these responses be made available to the general public through the internet.</p>	Federal and Provincial Governments		
<p>RECOMMENDATION 15.12 Decommissioning The Panel recommends that Nalcor demonstrate, prior to Project approval and in a manner acceptable to both</p>	Nalcor		



Recommendation	Responsibility	Accept/Accept Intent/Reject	Comments
governments, how it will assume financial responsibility for the potential future decommissioning of the Project to ensure that decommissioning does not become a burden to future generations.			
RECOMMENDATION 16.1 Regionally integrated cumulative effects assessment The Panel recommends that, if the Project is approved, the provincial Department of Environment and Conservation, in collaboration with the provincial Department of Labrador and Aboriginal Affairs and other relevant departments, identify regional mechanisms to assess and mitigate the cumulative effects of current and future development in Labrador.	Department of Environment and Conservation		
RECOMMENDATION 16.2 Establishment of protected areas The Panel recommends that, if the Project is approved, the provincial Department of Environment and Conservation commit resources to advance the Protected Areas Strategy process by working towards the following goals and reporting annually on progress: <ul style="list-style-type: none"> ▪ identify priority candidate areas for provincial protection in Labrador in order to bring the total protected area (federal and provincial) up to the national average (approximately 8.5 percent) before any additional major development is 	Department of Environment and Conservation		



Recommendation	Responsibility	Accept/Accept Intent/Reject	Comments
<p>approved in Labrador;</p> <ul style="list-style-type: none"> ▪ identify additional candidate areas in Labrador needed to bring the total protected area up to the level identified in the Protected Areas Strategy as desirable for adequate conservation purposes (10 to 15 percent); ▪ through this process, address preservation of representative areas of all ecozones, mitigation of habitat fragmentation, especially for migratory wildlife, and protection of selected rivers; and ▪ establish a schedule to ensure that priority candidate areas are protected. 			