

Decision/Direction Note
Department of Environment and Climate Change

Title: Methylmercury Workshop Outcome Assessment regarding the Lower Churchill Generation Project

Direction Required:

- Whether any changes should be implemented associated with existing project approvals or other aspects of the province's oversight of the above project.

Background and Current Status:

- On March 15, 2012, Nalcor Lower Churchill generation project was released from environmental assessment (EA) after a comprehensive independent federal-provincial Joint Review Panel (JRP) Process. There were numerous conditions associated with this release, including several environmental effects monitoring plans related to methylmercury.
- Methylmercury accumulation in the reservoir and the possibility of bio-accumulation in country foods (fish and seal) was a known aspect of the Muskrat Falls project and was examined by the JRP prior to the release of the project in 2012.
- Methylmercury is created in reservoirs when inorganic mercury (relatively non-toxic form) is converted to methylmercury (toxic form) by bacteria that feed on flooded vegetation and organic matter in the soil. Methylmercury is taken up by fish and other aquatic species and not excreted but instead builds up in concentration up the food chain. Consumption beyond levels recommended by Health Canada has the potential to cause adverse human health effects (largely related to impacts on the central and peripheral nervous system; impacts on children and pregnant women can occur at lower levels of exposure than other adults).
- Consumption advisories, which indicate acceptable consumption limits for various country foods based on results from Nalcor's monitoring programs, may need to be established in order to protect human health.
- The potential for health effects and the desire for project changes (i.e. full vegetation clearing as well as removal of soil from the reservoir) has been at the centre of the *Make Muskrat Right* campaign launched by the NG in the Fall of 2015.
- On June 14, 2016, the Minister of ECC responded to the NGs call for full clearing of the reservoir, inclusive of soil removal, indicating that the partial clearing scenario (approximately 75% of accessible vegetation, no soil removal) agreed to by the Government in 2012 continued to be the most appropriate option.
- Numerous protests followed, including a rally held in HVGB on June 27, 2016, while the Premier was in town for Expo, organized by the NG and attended by the three aboriginal groups, with several hundred protestors present. Subsequent to the rally, Government wrote the three Aboriginal leaders, seeking their participation in a second expert workshop to discuss methylmercury.
- On August 4, 2016 the second workshop was held in HVGB, which was facilitated by Mr. Wayne Thistle, of the Centre for Innovative Dispute Resolution (bio attached at Annex A).
- The workshop was well attended, with experts representing provincial and federal departments with the most significant roles (regulatory or otherwise) in the Muskrat Falls project. In addition to government entities, Nalcor staff and their experts, and all three

Aboriginal organizations - NG, NunatuKavut Community Council (NCC), and the Innu Nation (IN) ation (IN) incial and federal departments with the most significant roles (regulatory or otherwise) in the Muskted the researchers they have been working with over the past few years (Dr. Elsie Sunderland and Dr. Trevor Bell).

- Since the workshop, protests have continued and there have been several opinion articles and frequent calls to radio programs reiterating concern and noting the importance of resolution prior to flooding planned for Fall, 2016, as part of Nalcor's project schedule.
- On August 24, 2016, the NG wrote Prime Minister Trudeau expressing their concerns for their health, livelihood and cultural way of life. They reiterated their call for full clearing of vegetation and removal of soil, and an independent expert advisory committee reporting to a joint management body on which the Inuit are "full and equal partners". They further asked that the Department of Fisheries and Oceans (DFO) "rescind its authorization for this project or amend the authorization to require changes" and that the federal government "deny the request from the Government of Newfoundland and Labrador to increase the current loan guarantee or to issue new guarantees".
- A draft workshop summary report, prepared by the facilitator, was sent to workshop participants for comment, with a deadline of September 16, 2016. At the same time, Minister Trimper wrote Ministers McKenna (Environment and Climate Change Canada), LeBlanc (Department of Fisheries and Oceans) and Philpott (Health Canada) seeking their perspective on the workshop discussions. NRCan wrote the Department of Natural Resources seeking comment on the legal risk of proceeding with the current plan of partial clearing, and have asked for a reply by September, 20, 2016. This may relate to our letter as we were advised that DFO was consulting with NRCan.
- On September 16th the NG, copying all participants, wrote the facilitator indicating that the summary was an 'inaccurate summary of the discussion', refusing to comment on it, providing their own transcript of the workshop as well as an audio recording of the entire workshop. The fact that the NG was recording the workshop was not disclosed to the participants nor the facilitator previously.

Analysis:

- ECC's perspective is that the workshop did not produce any new science nor arguments that had not already been presented and considered. Discussion with federal departments since the workshop indicate the following: While ECC acknowledges the conclusions of the Schartup et al (2005) study, they did not feel this was enough to recommend any changes to the proposed reservoir clearing plan. Health Canada did not feel qualified to discuss methylmercury formation in reservoirs, instead they will concern themselves with the health question pertaining to methylmercury consumption by humans. DFO have acknowledged the potential for a greater downstream impact of methylmercury and accordingly have recommended additional monitoring
- In particular, discussions regarding soil removal confirmed this as a measure not previously taken and that a feasibility study would be needed. Such an activity was described as likely the most significant civil engineering project in the country, and no published literature could be presented to indicate its impact on methylmercury nor its broader environmental impacts. This aligns with the findings of the JRP in 2012, who made the following recommendation:
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

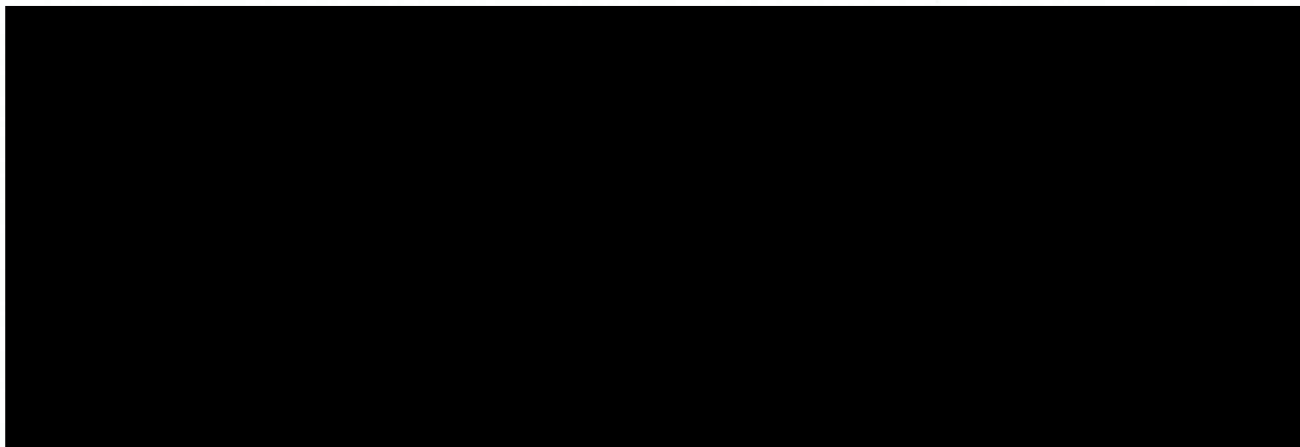
drawdown zone, and b) the effectiveness of this mitigation measure. The pilot study should take place in a location where the relevant parameters can be effectively controlled (i.e. not in the Lower Churchill watershed) and every effort should be made to complete the pilot before sanction decisions are 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.

- Furthermore, while applying Nalcor's full clearing scenario would be consistent with the JRP recommendation following the EA conducted previously, soil clearing would require a new project registration and extensive review. It will also likely require modifications to the existing federal authorization for alteration to fish habitat.
- The NG did not propose soil removal in their presentation to the JRP nor did they address this in their comments on the draft JRP report. The EA process considered the NG's perspective and government's duty to consult was fulfilled at that time. Further consultation, including two workshops, has occurred even though the government is not obligated.
- Based on the actions of the NG over the past number of months, especially the nature of their letter to the Prime Minister and their recent response to the facilitator regarding the workshop summary report, it is highly unlikely that any decision short of soil clearing will be acceptable to them. The reaction of the Innu Nation and NunatuKavut Community Council may be less extreme but they are unlikely to publicly support the province's position if the NG remains opposed.
- In addition to the low probability of the NG's acceptance of an offer to clear a small amount of additional timber, such an offer could weaken the province's position as may suggest that the prior position was based on a lack of fully understanding the science. In fact, such an offer, as contained in option 2 below, would simply be due to the need to show some movement in order to bring resolution to the issue.
- Furthermore, Nalcor has advised that the ability to remove any additional accessible timber is extremely limited if not non-existent, if they are to retain the current project schedule that would see flooding begin in mid to late October.
- In 2014, the NG brought a Court action to quash the provincial Minister's decision to grant Nalcor a permit to alter a body of water. The issue of clearing of the reservoir was raised in the proceedings. The Court determined that the appropriate time for the NG to challenge the Province's decision not to compel full clearing was when the Province's issued its responses to the JRP recommendations. The Court found that "the province's response settled and decided the matter. Nothing further was required." The Court also noted that the law does not contemplate "that decisions may effectively remain open for challenge long after they have been taken and the development has moved forward on the basis of such decisions".

- Government's Aboriginal Consultation Policy (ACP) requires the proponent to pay for any needed Aboriginal consultations. Nalcor is already funding an Innu Environmental Management Committee pursuant to the IBA, which is one reason that there is no Environmental Management Agreement (EMA) as set out in the non-binding Innu land claim AIP. Therefore, it would be more consistent with the ACP for Nalcor to discharge any provincial funding requirement.

- NunatuKavut has sought a consultation protocol and associated funding with the Government/Nalcor for the LC Projects, notwithstanding its lack of success in the courts on challenges to Government/ Nalcor consultation vis a vis the Project. While LAAO feels confident that NunatuKavut will embrace the Expert Advisory Committee, NunatuKavut may only view this as the first step in what in NunatuKavut believes needs to be a more extensive engagement with both the Government and Nalcor.
- The NG has also sought more engagement, even though like NunatuKavut its litigation has been unsuccessful, and it has refused to join the Community Liaison Committee recommended by the JRP. However, the NG may agree to participate in the Expert Advisory Committee, once the NG has exhausted all options to secure its version of full clearing, which would include soil removal.
- The Innu Nation has written both the Premier (August 2, 2016) and Minister Trimper (August 23, 2016) seeking to establish a LC Environmental Agreement as contemplated by the non-binding Innu land claim AIP. Clause 28.7.2 in the Lower Churchill Chapter of the Agreement-in-Principal (AIP) states the Province and Canada shall consult the Innu Government prior to issuing any permits for the Lower Churchill Projects in accordance with an Environmental Management Agreement (EMA). The provincial negotiator has not refused to conclude this agreement, but talks have foundered on the issue of funding the agreement. Since the ACP states the proponent needs to pay for consultations, and Nalcor has paid via the IBA, there should be no need for additional provincial funding. The Innu have been asked to demonstrate the incremental cost of consulting with the Government that would not essentially be covered by the IBA, and the Innu have failed, in the view of provincial negotiators, to demonstrate such costs.
- The IBA consultation process provides for an Environmental Management Committee which acts as a mechanism for consultation with Innu Nation on permits required for the Lower Churchill Projects. LAAO understands Nalcor fully funds this consultation mechanism. Permit applications, identified in the IBA are sent to the Innu Nation by Nalcor for a two week comment period in accordance with the IBA. The permit application may be revised as a result of any comments received from the Innu Nation under the IBA process. After this two week IBA period, a potentially revised application is submitted by Nalcor to the provincial regulator and simultaneously sent to the Innu Nation for a 30 day comment period. Finally, if the permit is issued by the regulator, the Innu Nation will receive a notification of the issuance along with a copy of the issued provincial permit.
- Innu Nation, NG, NunatuKavut and seven Quebec First Nation bands were and are also being consulted on Lower Churchill Projects permits via Aboriginal Consultation Guidelines issued by Government.
- Similarly, these ten Aboriginal governments and organizations were consulted during the joint federal-provincial EA for the Generation Project, and Government topped up the federal Aboriginal Participant funding to allow these Aboriginal entities to full and effective participate in that EA. This does not include funding provided to these entities by Nalcor during the course of that EA.
- Therefore, there will be a rationale as to why only three of the ten consulted Aboriginal entities are being included on the Expert Advisory Committee (EAC) referenced in the options below. Since the EAC primarily involves aquatic downstream effects, the inclusion of the three Labrador Aboriginal organizations appears to be justifiable. Also, the Quebec groups have not pursued such a role.

- The EAC may not completely satisfy the Innu request for an EMA, but it is a significant movement in that regard. Likewise, NunatuKavut may not be entirely satisfied by the EAP, but it is a positive step in its request for engagement. As well, the EAP would be a significant set toward the NG's request for joint management and expert panels.



- There are financial implications to the options below that would need to be considered both from the perspective of who pays (provincial government, federal government, or Nalcor) and exploration of available budget sources. Based on the aboriginal considerations noted above, there is an argument that any provincial costs be incurred by Nalcor.
- As of October 1st Nalcor is in a permitted position to begin flooding, and must raise the levels of water in the reservoir to a specified point prior to the setting in of ice so as to protect downstream infrastructure. The NG are aware of this timeline and, as such, are expected to increase pressure on government for an answer to their continued call to fully clear and remove soil from the reservoir.
- In light of the approaching flooding requirement, we may need to act before we are able to secure a federal position on potential compromise measures/messages, which will limit or require adjustment to the options below.
- Regardless of the option chosen, it is recommended that Minister Trimper convene a meeting with the three leaders in HVGB to verbally convey the outcome of our further consideration. This meeting should be leaders only, with the organizations advised they may have a maximum of two officials outside the meeting room. This meeting will need to occur before mid-late October, at which time Nalcor is expecting to begin flooding.
- As noted, without the concession of soil removal, it can be anticipated that reaction of the NG and in the community will be negative. Aggression, including public verbal abuse of Minister Trimper as MHA, and protesting, will likely escalate.
- As such, communication approaches that attempt to enable stakeholders to comprehend the key elements of the immediate decision, as well as the broader issue of the potential effects of methylmercury downstream post impoundment, are critically important. In developing the communications approach multiple challenges will be faced and must be considered in developing an effective communications strategy:
 - Addressing “NIMBY” (the Not In My Back Yard) syndrome;
 - Communicating an environmental issue;
 - Communicating complex science;
 - Communicating with Aboriginal organizations; and

- o Communicating with a community where a threat to personal health and safety is perceived.

Any of these situations, when encountered on their own, requires strategic communication. The current "Make Muskrat Right" situation comprises all of these challenges. To add to this, it is occurring in the environmental regulator's electoral district.

- With the appropriate strategic communications resources, a presentation appropriate for public consumption can be developed to provide an overview of the decision, along with other supporting material (such as Q and As) developed for distribution. It should include discussions on the Environmental Assessment process, the Make Muskrat Right campaign, consumption advisories, increased monitoring by DFO, the importance of country food, etc. As a number of these critical communications elements are within federal jurisdiction, its development will require input from appropriate agencies, such as DFO and Health Canada.

Options:

1. Uphold prior communications, reaffirming that:
 - a. the conditions placed on the initial EA release remain appropriate;
 - b. partial clearing of the reservoir, which has removed 75% of accessible vegetation, remains appropriate;
 - c. the additional downstream monitoring that DFO is requiring, together with other monitoring obligations and commitments to discuss monitoring results with federal and provincial agencies so that any actions needed to protect human health are taken, are felt to be effective and responsible activities; as well as indicating that
 - d. the province would be willing to be involved in any future research the federal government may wish to pursue regarding the impact of soil clearing from a reservoir as a methylmercury mitigation, provided that such research also examines the broader environmental impacts of such as measures as well as the socio-economic implications and feasibility of same.
2. Communicate the following actions of the provincial and federal governments:
 - a. ECC will direct Nalcor to apply, to the greatest extent possible without impacting the existing project schedule, their full clearing scenario to the reservoir (i.e. per JRP recommendation 4.5) which will remove a small amount of additional vegetation/timber, at an approximate cost to the project of \$25M;
 - b. The province will support action by the Federal Government on JRP recommendation 6.5 regarding a pilot study for methylmercury through soil removal.
 - c. An Expert Advisory Committee will be established, independently chaired (i.e. not by a provincial, federal, or Aboriginal Government or organization) with the structure, mission, and objectives as attached in Annex B, to be co-funded by the provincial and federal governments.
3. Option 1 plus option 2c, indicating that 2c is subject to the federal government's concurrence, which will be sought. This will allow Nalcor's current project schedule to continue, unimpeded. **This is the recommended option.**

Prepared/approved by: M. Goebel/C. Janes; in consultation with LAA, IGA, and JPS

Ministerial Approval: Received from the Honourable Perry Trimper

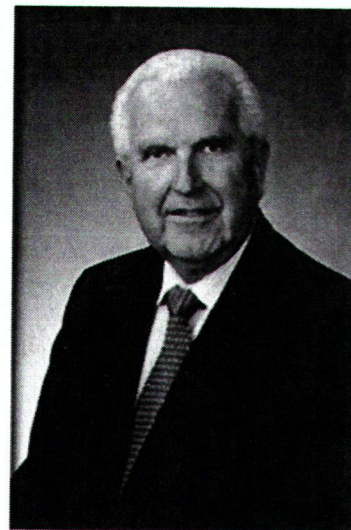
September 20, 2016

Annex A

Wayne Thistle

B. Sc. (Hons), B. Ed, MA, Q.C., C. Arb, C. Med

Wayne Thistle has been an active Arbitrator and Mediator for the past thirty years assisting parties throughout Canada in resolving disputes primarily in labour, insurance, industrial and commercial areas. He has worked with all levels of governments and Crown agencies, and with many employers and unions in diverse sectors including natural resources, particularly oil and gas, mining, forestry and fishery sectors, the airline industry, the health sector, the education sector, transportation and communications sector, the insurance industry and the banking and financial sector. He has experience in complex multi-party mediations and fact findings and is a named arbitrator in a number of provincial and national collective agreements. He has been described as "one of Canada's most noted educational administrators and one of Canada's leading and highly respected arbitrators and mediators."



Mr. Thistle was admitted to the Chartered Arbitrator designation by the Arbitration and Mediation Institute of Canada in 1988 and is currently qualifying for the Chartered Mediator designation. He has completed the Advanced Program in Alternative Dispute Resolution presented by the University of Windsor, Faculty of Law, and Stitt Feld Handy Houston law firm of Toronto. He also has undergone training offered in the Harvard Law School Program on Negotiation specializing in Conflict Resolution and Human Resource Effectiveness. Mr. Thistle has served in various administrative capacities over a thirty-five year career at Memorial University of Newfoundland and prior to his retirement in 2003 held, for twenty-one years, the position of Vice-President (Administration and Finance) and Legal Counsel. He has taught Commercial Law in the Faculty of Business Administration and Education Law in the Faculty of Education. He holds a Bachelor of Science (Honours Math and Physics) degree, a Bachelor of Education Degree and a Master of Arts Degree from Memorial University and a Bachelor of Laws degree from Dalhousie University.

Annex B

Mission: to oversee monitoring activities regarding the protection of the health of the aboriginal and local population who harvest and consume country foods in the Churchill River near Muskrat Falls and downstream into Lake Melville

Structure: Committee to have an independent Chair, scientific experts, representation from the three Aboriginal organizations, as well as key provincial and federal regulatory agencies including Environment and Climate Change, Environment and Climate Change Canada, DFO, Health Canada, and Health and Community Services

Objectives: Review the monitoring results arising from the terrestrial and aquatic effects monitoring programs as well as any outcomes and activities associated with or flowing from the final Human Health Risk Assessment, and provide advice to regulatory authorities in terms of actions needed to protect human health; review the work associated with the development of the study referenced above, and the results of the study as it is initiated and implemented, and provide input to the appropriate federal and/or provincial departments;