

Information Note
Department of Environment and Conservation

Title: Workshop and status of the Human Health Risk Assessment Plan / Environmental Effects Monitoring Plan on Lower Churchill Generation Project

Issue: This note was provided for information purposes only on the status of the proposed workshop to review the Human Health Risk Assessment Plan / Environmental Effects Monitoring Plan.

Background and Current Status:

- On March 15, 2012, Nalcor's Lower Churchill generation project was released from environmental assessment (EA) after a comprehensive independent panel review process. The project was released subject to an extensive list of terms and conditions as outlined in the Lower Churchill Hydroelectric Generation Project Undertaking Order 18/12 that required Nalcor to submit things such as a variety of environmental protection plans, environmental effects monitoring plans, socio-economic benefits plan and the establishment of a community liaison committee.
- Nalcor, in consultation with government departments, has received approval for the vast majority of the EA release conditions with the exception of:
 1. Wetland / riparian compensation plans (to be submitted prior to flooding reservoir)
 2. Human Health Risk Assessment Plan / Environmental Effects Monitoring Plan
- One of the key findings of the panel review was regarding the issue of methylmercury accumulation in the reservoir due to flooding the possibility bio-accumulation in country foods in particular fish and seals in Lake Melville. The Nunatsiavut Government (NG) was particularly concerned with this issue claiming it may impact on their treaty fishing rights.
- Methylmercury is created in reservoirs whereby normally occurring inorganic mercury (relatively non-toxic form) is converted to methylmercury (toxic form) by flooded vegetation. Methylmercury is taken up by fish and other aquatic species and not excreted but instead bio-accumulates up the food chain in the tissue and can cause adverse human health effects which can result in consumption advisories.

Methyl-Mercury Studies

- Nalcor will be conducting downstream effects surveys on methylmercury. Sampling programs will include fish and seals. The reservoir will be tested to determine the presence of methylmercury.
- Limits are set by Health Canada on the amount of methylmercury that can be consumed in country foods (ie. fish and seals). If the studies indicate methylmercury exceeds recommended guidelines by Health Canada then consumption advisories will be issued.
- A Human Health Risk Assessment Plan / Environmental Effects Monitoring Plan (EEMP) was re-submitted by Nalcor (revision B4) on March 17, 2015 as one of the EEMP requirements and is currently under review.

- The Nunatsiavut Government had commented and indicated the plan does not contain sufficient detail to enable a technical review.

Analysis:

- In July 2013, ENVC issued a permit to “Alter a Body of Water” to allow for the construction of a dam, power house and other related infrastructure for the generation facility at Muskrat Falls. The NG applied to the courts to quash the permit claiming the province failed to consult and accommodate the NG with respect to the impacts of methylmercury accumulation in the water and henceforth on their treaty fishing rights. On January 12, 2015, the Trial Division dismissed the application by the NG in favor of the province, citing the matter was dealt with during the EA review process where the NG was fully engaged.
- The NG is conducting their own human health research in Lake Melville and potential impacts to their communities. The NG contributed funding to a Harvard University study released in September 2015. The NG feel the study demonstrates that significant increases in methylmercury inputs to Lake Melville will result (up to 200%) because of discharges from the Muskrat Falls reservoir. Inuit communities rely on Lake Melville for hunting and fishing.
- On November 9, 2015 the NG wrote ENVC requesting a meeting to discuss the potential for the Muskrat Falls hydroelectric dam to cause serious harm to downstream Inuit communities. The NG is requesting that the Government of Newfoundland and Labrador direct Nalcor Energy to:
 - Fully clear the Muskrat Falls reservoir;
 - Negotiate an Impact Management Agreement;
 - Establish an independent Expert Advisory Committee; and
 - Grant Inuit joint decision-making authority over downstream environmental monitoring and management of the Lower Churchill project.
- The NG want the full tree clearing and removal of the soil from the reservoir. This is contrary to the Provinces response to the Joint Review Panel which stated The Government of Newfoundland and Labrador agrees with the principle of maximizing the utilization of the forest resource. With limited opportunities to use the resource, and the likely insignificant reductions in mercury levels associated with full versus partial clearing, the Government supports partial harvesting of the flood zone. If an economic opportunity to use the resource materializes, consideration will be given to harvesting additional fibre.
- On February 23, 2016 the ENVC Minister met with the NG in Happy Valley Goose Bay to hear their perspectives on the methylmercury research. The Minister also referenced a planned workshop intended to discuss the NG’s findings and HHRA/EEMP reports submitted by Nalcor. The workshop is to take place in St. John’s and is titled “*Methylmercury and Muskrat Falls: Sharing and Understanding Our Varied Perspectives*”. Workshop attendees are being finalized but include scientific experts from: ENVC, H&CS, Health Canada, DFO and Nalcor Energy. (A tentative participant list and bios are attached.)
- On March 10, 2016 the NG indicated they would not attend and issued a press release

stating entitled “*Facts indisputable and no value to hold workshop on downstream effects of Muskrat Falls*” - Minister Shiwak. The release also states “*The workshop being proposed by Minister Trimper would be of no added value to the Nunatsiavut Government as it will not change any of the facts, says Minister Shiwak*”.

Action Being Taken:

- The EA Division is currently reviewing the Human Health Risk Assessment Plan / Environmental Effects Monitoring Plan for compliance with the Undertaking Order.
- The workshop planned for March 22, 2016 will proceed and the NG will be advised the invitation remains open.

Prepared/approved by: P. Carter/B. Cleary Director/ M.Goebel, ADM

Ministerial Approval:

March 15, 2016