

Information Note: Joint Review Panel Recommendations Regarding Reservoir Preparation and Clearing

Background

Confusion exists regarding the Joint Review Panel's (JRP's) recommendations regarding reservoir preparation and soil removal. Part of the confusion arises from the use of terminology to describe reservoir preparation.

During the environmental assessment, Nalcor has referred to 'partial clearing' to target removal of trees within the upper levels of the reservoir and 'full clearing' to target removal of all trees in the reservoir. In both alternatives, trees adjacent to water courses and on steep slopes would not be removed. This is addressed in the JRP's Recommendation 4.5 to governments.

Nunatsiavut Government has described 'full clearing' as taking all of the trees and soil from the reservoir. The question of soil removal is addressed in the JRP's Recommendation 6.5 to government.

It is important to maintain a clear distinction in these activities.

Reservoir Preparation

Reservoir preparation is the removal of trees and vegetation from the reservoir area. The objective of the activity is to remove material that would be expected to impede navigation on the river or create operational issues when large quantities of material are transported to the powerhouse.

Nalcor's purpose of this activity was not to reduce methylmercury accumulation, although the JRP did observe that "... the more trees cleared, the more benefits accrue in terms of reducing methylmercury accumulation and greenhouse gas emissions, though gains may be small."

The JRP completed its own analysis to describe the additional quantity of wood that would be removed from the reservoir if full reservoir clearing (trees only) were undertaken. In its report, the JRP noted:

"The Panel therefore estimates that applying the 'full clearing' option to the Muskrat Falls reservoir would result in additional costs of no more than one-quarter to one-third more than for 'partial clearing' and related activities, and likely less."

They then concluded:

"The Panel concludes that it is both technically and economically feasible to carry out 'full clearing' for the Muskrat Falls reservoir."

This statement is unfounded, as no evidence was available to the JRP to demonstrate economic feasibility.

Based on their conclusion, they further recommended in Recommendation 4.5

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.

The Province accepted the intent of this recommendation, but did not require full clearing. It did state that if opportunities to use the resource materialized, then consideration would be given to harvesting additional fibre.

In Nalcor's view, this is a correct conclusion, as economic feasibility could only be demonstrated if the value of the wood harvested would be greater than the harvesting cost. No commercial use for wood harvested from reservoir clearing operations, and the removed wood remains in storage adjacent to the reservoir today.

Soil Removal

Soil Removal, separate from clearing, was also discussed during the EA, and is addressed in the JRP's report. The JRP acknowledged that soil removal is not yet proven as mitigation. It also observed that the alternative may have merit, especially if the removal can be confined to the reservoir rim.

This led to the JRP's recommendation in relation to soil removal:

RECOMMENDATION 6.5 Pilot study for methylmercury mitigation through soil removal

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.

The JRP clearly stated they expected this pilot to not occur in the Lower Churchill watershed, which would exclude Muskrat Falls from the pilot.

It is important to note that the environmental effects of soil removal from the Muskrat Falls reservoir were not reviewed by the JRP, and no evidence to base a decision to undertake such action was presented. Perhaps more significantly, it is not a part of the Project as approved, and would be subject to EA before it could be undertaken.

Additional Information

Refer to excerpts from the JRP Report discussing recommendations 4.5 and 6.5.