

Independent Expert Advisory (IEC) Committee**Suggestions for Targeted Mitigation Action – Scenarios A and B dated 23 January 2018****Background**

The IEC 'Reservoir Subcommittee (RSC)' has been reviewing the possibility of targeted mitigation (removal or cover) scenarios that might help reduce the potential for methylmercury production after full inundation. These are considered a starting point and may be adjusted going forward. The group also welcomes suggestions from Nalcor as to modifications (including additions) to these scenarios. In order to facilitate the exchange of ideas and views it is recommended that the groups liaise frequently. It is also felt that these scenarios have to be 'verified' in that they should be run through the models developed by both Reed Harris and Ryan Calder to see how effective they might be in achieving their desired goal – i.e. of reducing future amounts of methylmercury.

I fully support this approach and strongly recommend that we mutually develop realistic timelines for the execution of the work and establish an effective communication strategy.

K.J. Reimer

Chair, Independent Expert Advisory Committee
Muskrat Falls Project

Scenarios

The IEAC is proposing two "Targeted" Soil Mitigation Scenarios for consideration in the Constructability Study. These scenarios should be considered independently of each other but we ask that the contractor identify where mutual costs exist were both activities to occur simultaneously.

Scenario A:

- Cap all fen and low shrub bog (but not marsh) wetland ELC areas between 23.5 and 39 m asl with sediments that are low in total organic carbon (<2%), locally available and will be stable (resistant to erosion from water flow) on the reservoir bed.
- Stability of sediment cap is more important than thickness but assume 50 cm thick for this scenario. Cap should isolate the organic wetland soils, particularly peat accumulations, from the water column. We assume that sand or sandy clay (preferred) are locally available as a capping material. Please specify minimal requirements for textural content of capping materials and potential sources of available local material. Please justify selections based on modeled flow velocities on reservoir bed and documented surficial geology in ELC study, respectively.
- Conduct work during frozen ground conditions (to minimize access and nearby ground disturbance).

Scenario B:

- Remove soil from areas that have been previously cleared of trees and vegetation and are accessible by existing roads, between the 23.5 masl contour and the 39 masl contour.
- Exclude areas of slopes greater than 30% and other areas that would require re-profiling
- Exclude areas that potentially contain sensitive clays (to avoid disturbance and re-profiling).
- Exclude riparian ELC areas.
- For the cost estimate, prioritize work on steeper slopes during frozen ground conditions, moving towards flatter areas during thawed ground conditions (to limit runoff from clearance activities).
- Also provide the cost estimate for scenario B where all soil removal is completed during frozen ground conditions only (possibly over multiple years if necessary)

For each scenario, please clearly explain how costs differ from those outlined for “Complete removal of all organic materials in frozen conditions”.