

Excerpts from:



MOORE FALLS DAM PORTAGE TRAIL CONCEPT STUDY

MTO/PCA

TYPE OF DOCUMENT (VERSION)

PROJECT NO.: 17M-01943-11.

CLIENT REF:

DATE: JANUARY 25, 2019

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3.2.7 OPTION 6: MOVE PORTAGE TO ISLAND

This Option consists of moving the portage trail to the north bank of the south passage, where there is a small vegetated island. This Option would require reconfiguring the booms to allow boaters to exit the water at the island. A detailed boom study would be required in detailed design. There is a risk that the boom study would show that it is not feasible to move the boom on the south side closer to the south dam. However, at present the boom is closer to the dam on the north side than on the south. Based on measurements scaled from aerial photographs, on a preliminary basis the proposed boom configuration does not appear to be closer to the south dam than what was accepted for the north dam.

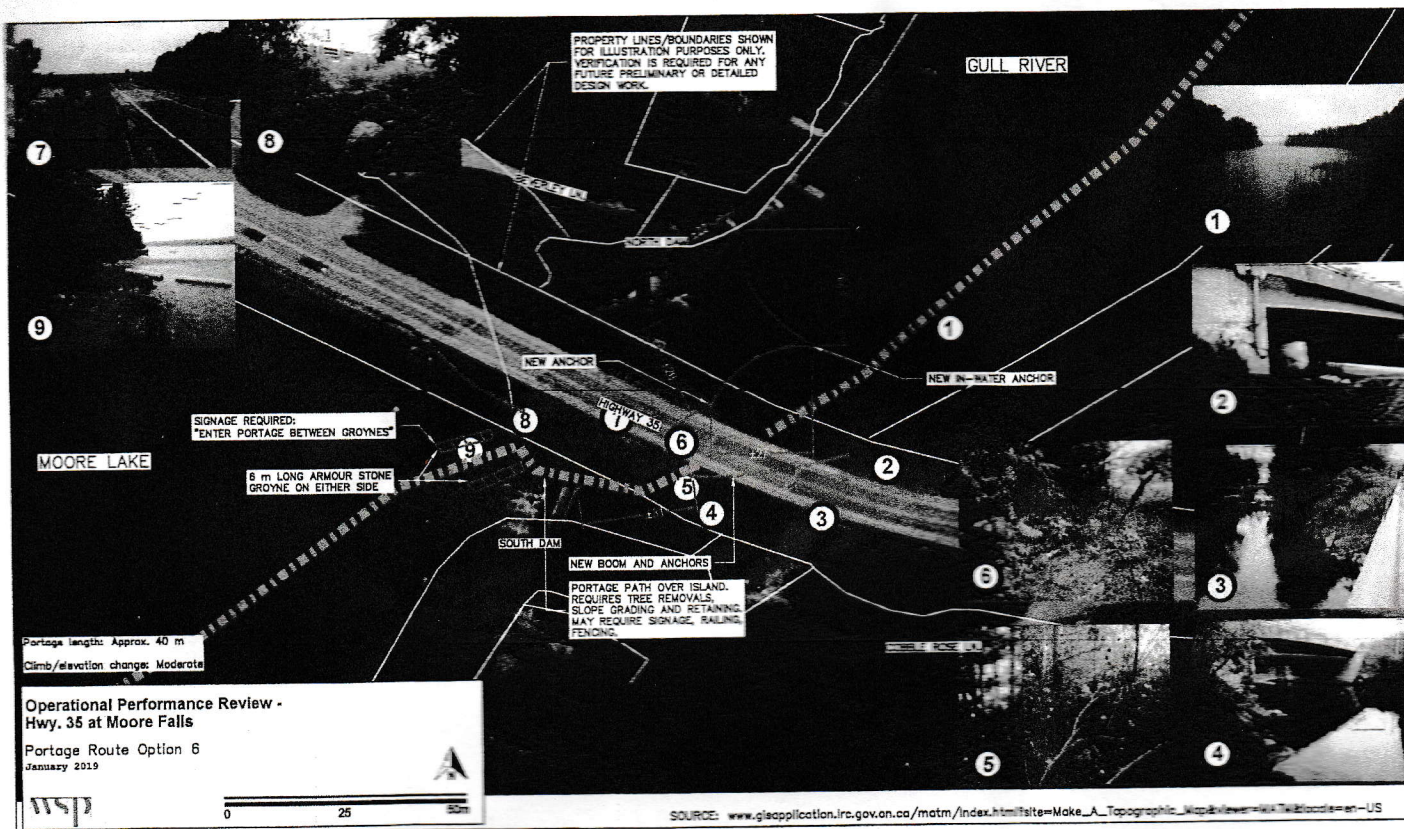
Some tree removals and earthworks would be required to create a trail on the island. This Option likely does not require any concrete construction, other than perhaps the construction of 1 boom anchor in the water. Boaters would cross under Highway 35 on the island and then re-enter the water. Armour stone would be placed on either side of the downstream entry point to create a slack water area. This armour stone would be angled to redirect high flows

away from the portage. This is not expected to create a hydraulic restriction as the water is flowing into a large lake at this location.

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4 NEXT STEPS

Based on the preliminary work that is described in this report, and if WSP's recommended option is confirmed as preferred by MTO/PCA, WSP has prepared the following list of 'Next Steps' that MTO/PCA will need to pursue to successfully achieve the objectives of this project:

- 1 Assess preferred option in more detail including:
 - a Detailed boom study to determine whether it is feasible to reconfigure the booms to allow access to the island.
Study will involve:
 - i Collection of bathymetric/topographic survey data from the site (this item to be coordinated with 1d)
 - ii Collection and/or review of available geotechnical information
 - iii Review of dam safety history at the site including any incident or near incident reports
 - iv Review of available flow and water level data for the site and calculation of velocities
 - v Assessment of Exclusion Zones and Warning Zones based on hydraulic parameters as well as geometry of the site
 - vi Assessment of environmental impacts (e.g. tree removals, earthworks, work in/near water)
 - vii Preparation of preliminary boom configuration which meets CDA and PCA requirements
 - b Proposed preliminary boom configuration must be approved by PCA (regulator)
 - c Confirm property lines and ownership
 - d Prepare a topographic survey of the island with existing trees located on the survey / plan.
- 2 Prepare design drawings and specifications for:
 - a Armour stone extension to create entry point from island
 - b Boom and boom anchors (using standard PCA details as starting point for site-specific design)
 - c Trail built into the sides slope on the island including water access at both ends

3.5 SUMMARY OF EVALUATION OF CONCEPT OPTIONS

Table 3-2 Summary of Evaluation of Concept Options

Evaluation Criterion	Opt 0	Opt 1	Opt 2	Opt 3	Opt 4	Opt 5	Opt 6	Opt 7	Opt 8
Functionality	1	2	4	4	4	4	5	1	1
Public Safety	1	1	3	4	4	5	5	2	2
Hydraulic Impact	5	5	1	1	1	5	5	5	5
Environmental Impact	5	5	2	2	2	2	3	4	2
O&M	4	4	3	4	3	3	5	4	4
Cost	5	4	2	1	1	3	3	2	2
Length	1	5	5	3	4	3	4	2	1
Elevation	1	5	5	3	3	2	4	2	1
Land Ownership	1	5	5	3	3	1	5	3	1
TOTAL	24	36	30	25	25	28	<u>39</u>	25	19

3.6 RECOMMENDED CONCEPT OPTION

WSP recommends Option 6 for the following reasons:

- A functional portage trail is created which is all on public/Crown land
- The length and elevation of the trail are optimized compared to all other Options which meet public safety requirements
- ✶ No hydraulic impact is anticipated which means less study will be required in detailed design, mitigating measures will not be required, and PCA will be more likely to approve the design.
- Less in-water work and minimal concrete work (just one in-water anchor)
- Potential for fewer tree removals and less earthwork as compared to some of the other options that have new portage trail construction in wooded areas
- Debris will accumulate to more easily accessible areas on the island and north shore