Riverside Dam Replacement – City of Cambridge
Municipal Class Environmental Assessment

Minister's Review of Issues Raised by Requesters

Issue	Response and Analysis
Cambridge City Council influenced the decision on the preferred alternative, resulting in a pre-selected outcome. The evaluation of alternatives was flawed, as inadequate weight was given to the natural environment benefits of naturalizing the Speed River, or the costs and liability associated with rebuilding the dam. Key stakeholders were in favour of naturalizing the Speed River.	The Municipal Class Environmental Assessment is a proponent-driven process; proponents are responsible for identifying, evaluating and mitigating potential environmental impacts of each alternative. The Municipal Class Environmental Assessment states that "[project] documentation should explain the reasons for the criteria used to identify and assess the alternatives, the proponent's weighting of these criteria and the decision making process followed." The City estimated the life cycle costs of rebuilding Riverside Dam and naturalizing the Speed River to be $9.2 million and $5.6 million, respectively. Approximately 40% of the $3.6 million difference is due to higher capital costs. The remaining 60% is due to the fact that rebuilding the dam will require regular repair and maintenance over 100 years, whereas naturalizing the Speed River would only require 3 years of limited maintenance. The City also considered the financial liability associated with a dam failure, which could cause damages to persons or property. This liability would be low for a rebuilt dam, and would not be present for a naturalized river. During its initial evaluation, the City assigned a medium weight to the economic life cycle cost and liability criteria. This resulted in the preferred alternative being to naturalize the Speed River, which was presented to Cambridge City Council on March 6, 2018. Cambridge City Council rejected this recommendation and requested City staff to report back with options to rebuild or repair the dam. Cambridge City Council also clarified that it did not agree that life cycle cost and liability factors were significant determinants, and that the City would accept the risks and costs associated with these factors. In response to this, City staff adjusted the weighting of these economic criteria for life cycle cost and liability from medium to low. Rebuilding Riverside Dam and

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	naturalizing the Speed River were then re-evaluated under this adjusted weighting, and resulted in even scores. The City then selected rebuilding Riverside Dam based on Cambridge City Council's weight to the cultural aspects evaluated during the Class Environmental Assessment process. While some project stakeholders (Ministry of Natural Resources and Forestry and Grand River Conservation Authority) were in favour of naturalizing the Speed River due to potential opportunities and benefits, the City selected rebuilding the dam based upon the weights it assigned to all evaluation criteria. The City has indicated that it will continue to work with stakeholders through detailed design. The City must obtain any necessary approvals from the Ministry of Natural Resources and Forestry, the Grand River Conservation Authority, and any other permitting agencies prior to proceeding with the project. The ministry has consulted with the Ministry of Natural Resources and Forestry and the Grand River Conservation Authority and confirmed that there are no barriers to the City applying for these approvals for the rebuilt dam. I am satisfied that the City selected a preferred alternative according to the requirements of the Municipal Class Environmental Assessment.
There are ongoing environmental impacts from the existing dam and headpond that would be unaddressed by rebuilding the dam. • Flooding and climate change	The City is proposing to rebuild the Riverside Dam in similar function, dimensions, and aesthetics. Replacing the dam will not cause any significant new environmental impacts, and temporary construction impacts will be mitigated. The City considered flooding, fish passage, natural heritage, aquatic habitat, water quality/temperature, fishing and boating criteria in its evaluation of the alternatives and committed to incorporating mitigation measures and enhancements for ongoing challenges associated with the existing dam and headpond. The City considered upstream flooding risk resulting from normal operation of the dam. This risk will be unchanged for a rebuilt dam. The greatest flooding impacts from

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• Fish passage and species at risk • Water quality and temperature	Riverside Dam are experienced within the adjacent city-owned Riverside Park, which is flooded approximately 30 days per year. The City has committed to installing operable gates, and this is expected to reduce the duration of flooding impacts during larger flow events. The City also conducted a preliminary hazard classification for Riverside Dam, and determined that the new dam would be required, at a minimum, to be structurally stable under a regional storm event, which would account for more frequent and severe storms. In order to obtain further approvals under the Lakes and Rivers Improvement Act, further design work is required to demonstrate the dam's stability. The Ministry of Natural Resources and Forestry will determine the appropriate standard the dam must adhere to. Wavy-rayed Lampmussel is a federally and provincially designated species at risk, and is present upstream and downstream of Riverside Dam. The City committed to undertaking additional studies during detailed design to explore what habitat improvement measures for the Wavy-rayed Lampmussel can be implemented into the new dam. Riverside Dam also presents a barrier to fish movement upstream and downstream of the dam, and Wavy-rayed Lampmussel depends on some species of fish for successful reproduction. The City committed to including a fish ladder or alternative fish passage method, and the Ministry of Natural Resources and Forestry indicated that such a feature would be a condition of approving the dam under the Lakes and Rivers Improvement Act. The City reviewed and sampled water quality in the Speed River. Elevated phosphorus, nitrate and chloride concentrations were found to occur upstream of the dam between Guelph and Cambridge. The dam is not the source of these elevated concentrations. There is significant sediment upstream of Riverside Dam. As part of the project, the City will remove this sediment and restore the depth and volume of the headpond. This is expected to reduce water temperatures in the headpond, improving water quality and aquatic habitat from current conditions. The installation of operable

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• Boating and fishing	gates is anticipated to further mitigate sediment accumulation, and better maintain the depth and volume of the headpond over the medium and long-term. The existing headpond provides recreational boating and fishing opportunities, but impacts navigability between upstream and downstream. The City committed to examining signage and infrastructure (e.g. pathways or a canoe launch) during detailed design to facilitate portaging around the dam. I am satisfied that the City considered ongoing challenges with the existing dam, and has committed to design features that will mitigate these challenges.
Indigenous communities were not consulted effectively.	The City consulted with the Six Nations of the Grand River, the Haudenosaunee Development Institute and the Mississaugas of the New Credit First Nation throughout the Municipal Class Environmental Assessment process. No concerns were raised by these communities. Project Notices were sent to the First Nations communities in April 2012, as well as notices of each public information centre. When the City re-examined its preliminary preferred alternative in mid-2018, the City notified communities. Face-to-face meetings were held with Six Nations of the Grand River and the Mississaugas of the New Credit First Nation on May 31 and June 13, 2018, respectively. Both communities indicated they understood the rationale for retaining the dam. While Six Nations of the Grand River specifically stated it was still in favour of the naturalization alternative, neither they nor Mississaugas of the New Credit First Nation raised any concerns regarding Aboriginal or treaty rights. Six Nations of the Grand River also requested to be involved in any future archaeological assessments completed for the project. The City committed to consult Indigenous communities during detailed design, and invite them to participate in any future field studies. I am satisfied with the City's consultation efforts to date, and that no concerns were expressed regarding Aboriginal or treaty rights.

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The City improperly classified the project as a Schedule B project under the Municipal Class Environmental Assessment.	The project was properly classified as a Schedule B project. The Municipal Class Environmental Assessment's Schedule B requirements apply for the "[reconstruction] of an existing weir or dam at the same location where the purpose, use and capacity are changed." The City is proposing to reconstruct the existing Riverside Dam at the same location for the same purpose, use and capacity. I am satisfied that the project was properly classified under the Municipal Class Environmental Assessment.