Hillsburgh Dam and Bridge – Town of Erin
Class Environmental Assessment

Minister's Review of Issues Raised by the Requesters:

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Environmental Assessment Process	
The Town failed to justify removal of alternatives to decommission the Hillsburgh Dam (Alternative C and Alternative D) from the evaluation of alternatives.	At the initial stages of the Class Environmental Assessment, the Hillsburgh Pond and components of the dam structure were privately owned. Prior to the May 2016 Public Information Centre, the Town was informed that the Hillsburgh Pond and components of the dam structure were purchased by the County of Wellington (County) as part of a proposed library development. On July 21, 2016, the Town, the Ministry of Natural Resources and Forestry, Credit Valley Conservation Authority and the County met to discuss the Project alternatives. The County stated it was opposed to any alternatives involving removal or alteration of Hillsburgh Pond. Ministry of Natural Resources and Forestry staff requested that the County confirm its position in writing to include as part of planning for the Project. The County confirmed this in a letter dated July 26, 2016. Following this meeting, a technical meeting was held on August 22, 2016 with the Town and its consultant, and Ministry of Natural Resources and Forestry and Credit Valley Conservation staff. Discussions were held regarding the identification and evaluation of Project alternatives given the new restrictions of ownership of Hillsburgh Pond, and the County's opposition to certain alternatives. Suggested changes to the weighting of Project alternatives were considered by the Town and a response to all agency comments was completed and materials were re-circulated to the Ministry of Natural Resources and Forestry and Credit Valley Conservation Authority for comment in October of 2016. Ministry of Natural Resources and Forestry staff have informed the ministry that although an evaluation of dam decommissioning alternatives would be preferred, it is understood that the Town does not have permission to access County lands for dam decommissioning and/or

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	removal of Hillsburgh Pond, and that partial decommissioning would not be possible without support from the County. Under the ministry's Code of Practice for Preparing, Reviewing, and Using Class Environmental Assessments in Ontario, a proponent in an environmental assessment has no obligation to carry forward alternatives that are not reasonable, practical, or implementable provided screening criteria is used to provide rationale for not looking at other alternatives. Alternative C1 – Rehabilitate Bridge, Decommission Dam/Alternative C2 – Rehabilitate Bridge, Construct Offline Pond and Alternative D1 – Reconstruct Bridge, Decommission Dam/Alternative D2 – Reconstruct Bridge, Construct Offline Pond were accordingly eliminated from the Class Environmental Assessment as the Town determined that these alternatives were not implementable within the defined study area due to restrictions of ownership of Hillsburgh Pond. I am satisfied that the Town identified and evaluated Project alternatives in accordance with the Municipal Class Environmental Assessment and the ministry's Code of Practice for Class Environmental Assessments.
The recommendations of agencies, regulatory bodies, and public interest groups were ignored. The Town of Erin's Environment and Sustainability Advisory Committee was not consulted as part of the Class Environmental Assessment.	During the consultation process, the Town received and considered numerous comments and input from the Ministry of Natural Resources and Forestry and Credit Valley Conservation Authority, among other agencies. Comments from public interest groups and members of the public, including responses from the Town, were also taken into consideration and included on record in the Project file. The Environment and Sustainability Advisory Committee was informed of the Class Environmental Assessment through public notices. During the Class Environmental Assessment, the Town's Chief Administrative Officer provided input to the Project team. I am satisfied that the Project has met the requirements for consultation, as per the requirements of the Municipal

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	Class Environmental Assessment.
The Town did not provide the Ministry of Natural Resources and Forestry and Credit Valley Conservation Authority adequate time to review the Class Environmental Assessment prior to issuance of the Notice of Completion.	The Ministry of Natural Resources and Forestry and Credit Valley Conservation were kept informed of all information throughout the consultation process and through supplementary meetings, which led to the eventual completion of the Class Environmental Assessment. These agencies were directly involved in meetings and provided comments for consideration by the Town. A record of these meetings and contact points are included in the Project file. I am satisfied that consultation with the Ministry of Natural Resources and Forestry and Credit Valley Conservation occurred throughout the Class Environmental Assessment planning process and that a 45-day public review period was provided after issuance of the Notice of Completion for public and agency review and comment, as per the requirements of the Municipal Class Environmental Assessment.
The County of Wellington should have been a co-proponent with the Town of Erin.	The Town owns the earthen berm structure and Station Street Bridge, while the County is the owner of the Hillsburgh Pond and the dam's monk riser outlet and stop-log control structures. The Ministry of Natural Resources and Forestry directed the Town, by a condition of the *Lakes and Rivers Improvement Act*, to develop and implement a permanent solution for the dam following emergency repairs in 2012. At the beginning of the Class Environmental Assessment, the Hillsburgh Pond was privately owned. Prior to the May 2016 Public Information Centre, the Town was informed that the Hillsburgh Pond had been purchased by the County as part of a proposed library development. The Class Environmental Assessment was initiated and underway prior to new information regarding the County's adjacent land purchase. Accordingly, the Town is the sole proponent for the purposes of this Class Environmental Assessment. I am satisfied that the Town is the appropriate proponent

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	for the Project undertaking.
Legislated criteria under the *Lakes and Rivers Improvement Act* should have been included in the evaluation of alternatives.	Legislative requirements of the *Lakes and Rivers Improvement Act* were considered in the Class Environmental Assessment, which discusses the potential permit and regulatory requirements from various government agencies related to the preferred alternative. The preferred alternative, as presented in the Project file, would meet the legislative requirements of the *Lakes and Rivers Improvement Act*. I am satisfied that the Project file has addressed the potential legislative and regulatory requirements for work on the dam and bridge, including the requirements for approval under the *Lakes and Rivers Improvement Act* for the Project.
The preferred alternative does not provide a permanent solution to address the potential risk of loss of life and property damage associated with maintaining a dam.	The dam has been in place for approximately 160 years. Once rehabilitated, in accordance with the recommendations in the Project file, it is intended to have a long service life. All infrastructure requires periodic maintenance throughout its life cycle to remain a permanent fixture in the community. As it relates to the Class Environmental Assessment, all alternatives are considered a permanent solution, with exception to the "Do Nothing" scenario required under the *Environmental Assessment Act*. I am satisfied that all alternatives evaluated in the Class Environmental Assessment are intended to provide a permanent solution for the Project.
Environmental	
The preferred alternative to keep the on-line Hillsburgh Pond disrupts the aquatic thermal regime of the watercourse and presents a barrier to fish passage.	The Town completed an assessment of aquatic habitat, which included an investigation of thermal regime and fish barriers, and it was appended to the Project file. The assessment confirmed that removal of the dam and Hillsburgh Pond would improve thermal conditions and remove barriers to fish passage at the site along the upper West Credit River. Aquatic/fish habitat considerations were

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	a criterion weighed in the final evaluation of alternatives in the Project file. The Town notes that the dam and its associated ponds have been in their current state for approximately 160 years with no unacceptable impacts recorded.
The Class Environmental Assessment does not provide firm commitment to mitigation measures.	The Project file did not identify any new unacceptable impacts associated with the preferred alternative. The Natural Environment Report completed for the Project recommends installation of a fish bypass and bottom draw system (a mechanism that decreases pond outlet water temperature) as a mitigation measure, provided it is financially and practically feasible. In order to pursue any mitigation strategies, the Town requires the cooperation of the County. The ministry held a meeting on November 2, 2017 with the Town, the Ministry of Natural Resources and Forestry, Credit Valley Conservation, and the County to discuss the Project. On November 7, 2017 the County submitted its support to provide access to the Hillsburgh Pond, and its associated dam structures as required, for the implementation of mitigation measures for the preferred alternative. On November 15, 2017, the Town provided the ministry with the following commitments to examine the feasibility of: • The implementation of a bottom draw system to assist with improving the thermal regime of the Hillsburgh Pond; and, • The implementation of a fish ladder to aid in eliminating fish barriers along this section of the upper West Credit River. I am satisfied that the Town and County shall investigate and implement a bottom draw system and fish ladder in consultation with the Ministry of Natural Resources and Credit Valley Conservation Authority, as required. To help ensure that the public remains informed as this

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	Project proceeds towards implementation, I have imposed a condition on the Project requiring the Town to post detailed documentation on the agreed mitigation measures with the County on a publicly accessible website, prior to Project implementation.
Potential impacts from climate change were not fully investigated.	The original hydraulic requirements for the replacement of the bridge considered the 25-year design storm event. As a result of consultation with the Ministry of Natural Resources and Forestry and Credit Valley Conservation and the potential of an increase in the intensity and duration of rainfall events due to climate change, the Town used the Regional Storm event for calculating the hydraulic capacities of the dam and bridge, as well as when analyzing the upstream and downstream floodplains. The Regional Storm event is based on rainfall from Hurricane Hazel, and is beyond the rainfall amount anticipated from a 100-year storm.
There remains a risk of a dam breach from a major storm event.	The risk and impacts of a potential dam breach were evaluated and considered as part of the shortlisted comparison and ranking of alternatives, specifically under the hydraulics, transportation, and public safety criteria. The Credit Valley Conservation Authority was satisfied with the Project's hydrological investigations, and concluded that for alternatives where a new Station Street Bridge is constructed with a larger span, that flooding is eliminated over Station Street, and there is a reduction in flood levels between Station Street and nearby Trafalgar Road. To ensure that the new Station Street Bridge crossing accommodates a Regional Storm event, I have imposed conditions on the Project which require the Town to continue consulting with the Ministry of Natural Resources and Forestry and Credit Valley Conservation Authority during detailed design on stormwater conveyance specifications for the reconstructed Station Street Bridge; and that any mitigation measures proposed by the Ministry of Natural Resources and Forestry and/or Credit Valley Conservation to decrease potential impacts to terrestrial

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	and aquatic wildlife passage and natural heritage features are considered and documented by the Town.
Potential impacts to existing private drinking water systems, including dug wells, were not investigated during the Class Environmental Assessment.	The Town conducted studies on properties to which it was granted access. A hydrogeological assessment was completed for the Project, and was conducted as a desktop review of existing information. The hydrogeological assessment makes assumptions, which could not be verified by field investigations due to the lack of access. The hydrogeological assessment considered potential impacts to dug wells in the vicinity of Hillsburgh Pond. The assessment examined the potential for a hydraulic connection between the Hillsburgh Pond and groundwater table, including surrounding private wells. The existence of a hydraulic connection would indicate the potential for impacts to water quality in the dug wells. The hydrogeological assessment determined that most of the water wells obtain water from the underlying bedrock aquifer, which is separated from the shallow groundwater system and Hillsburgh Pond, typically by at least 10 metres of overburden sediment. Therefore, it is assumed that the two groundwater systems should be relatively isolated hydraulically, and alteration to Hillsburgh Pond would present no issues to the bedrock wells. The preferred alternative to rehabilitate the dam would not result in any material alteration of the Hillsburgh Pond. Ministry technical staff reviewed the Project file and noted that the assessment partially addresses the potential impact to the surrounding bedrock and dug wells. The hydrogeological assessment did not include approximate water level elevations for the existing dug wells or the water table aquifer. Staff at the ministry's Source Protection Programs Branch also reviewed the Project file and note that although policies in the Credit Valley Source Protection Plan primarily focus on municipal residential water systems, it is appropriate for the Town to consider if the Project may impact other current or future drinking water sources or

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	systems not addressed by the Credit Valley Source Protection Plan, such as existing private systems. Ministry staff note that the preferred alternative to rehabilitate the dam does not result in the material alteration of the Hillsburgh Pond. However, in order to fully assess all potential risks, I have imposed a condition on the Project that requires the Town to monitor and document potential impacts on groundwater quality of the water table aquifer and/or potential connections to existing private well systems, including dug wells; and develop appropriate mitigation measures in consultation with Credit Valley Conservation Authority, as required.
A sediment survey and geomorphological investigation should have been completed.	The Town conducted studies on properties to which it was granted access. During the Class Environmental Assessment, the County refused access to the Hillsburgh Pond; preventing further investigations at the site. The Project documentation discusses potential mitigation and enhancement strategies, such as completion of a sediment survey to calculate the quantity and quality of sediment within the Hillsburgh Pond, and a mitigation strategy to improve the volume of sediment which enters the Hillsburgh Pond. In order to pursue any mitigation strategies, the Town requires the cooperation of the County. On November 7, 2017 the County submitted its support to provide access to the Hillsburgh Pond, and its associated dam structures as required, for the implementation of mitigation measures for the preferred alternative. On November 15, 2017, the Town provided the ministry with further details on potential impacts to water quality as a result of the Project. The following mitigation measures are proposed to mitigate and reduce the volume and accumulation of sediment within the Hillsburgh Pond: • Lot-level sediment control measures will be

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	implemented for areas which outlet directly upstream of and into the Hillsburgh Pond, such as: o Sediment traps; o Oil/grit separators; o Catch basin Goss traps; and, o Deep catch basin sumps. I am satisfied that mitigation measures to reduce the volume and accumulation of sediment within the Hillsburgh Pond were considered by the Town, as per the requirements of the Municipal Class Environmental Assessment.
Out of Scope	
There is no justification for replacing the dam's earthen berm structure.	As part of the Non-Application Emergency Repair process under the *Lakes and Rivers Improvement Act*, blue clay was considered a suitable material for use of new fill within the dam's repaired core area. These temporary repairs were approved by the Ministry of Natural Resources and Forestry. During detailed design, the Town will consult with the Ministry of Natural Resources and Forestry staff concerning the materials and construction methods related to the final rehabilitation of the earthen berm dam. I am satisfied that this issue is outside of the scope of the Class Environmental Assessment.
The Project's financial cost exceeds its benefits.	The Municipal Class Environmental Assessment planning process is a proponent-driven process. It is not within the ministry's purview to advise the Town on how to allocate its resources. The ministry's role in respect to environmental assessments is to ensure that significant environmental impacts are identified and mitigated. I am satisfied that this issue is outside of the scope of the Class Environmental Assessment.