



Josh Annett
Program Officer, Ministry of Natural Resources
Policy Division, Biodiversity Branch
Great Lakes & Water Policy Section - Peterborough
300 Water Street, Floor 5 South
Peterborough, Ontario

January 13, 2013

Re: Conservation Ontario's comments on the proposed updates to provincial requirements for the location and management of dams under the Lakes and Rivers Improvement Act (EBR # 012-0562)

Dear Mr. Annett,

Thank you for providing the opportunity to provide comments on the Ministry of Natural Resources (MNR)'s four draft technical bulletins on the location and management of dams. Conservation Ontario is the network of Ontario's 36 Conservation Authorities (CAs). CAs are resource management agencies that operate on the basis of local watersheds. Through regulations made under the Conservation Authorities Act, CAs are empowered to regulate development and activities in or adjacent to river or stream valleys, Great Lakes and inland lakes shorelines, watercourses, hazardous lands and wetlands. Conservation Authorities operate many dams throughout the province for flood and erosion control. Overall, Conservation Ontario is supportive of the Ministry's efforts to develop these Technical Bulletins pursuant to the Lakes and Rivers Improvement Act. MNR staff should be commended for their efforts to advance these documents. The following specific comments are intended to enhance and clarify elements in each technical bulletin.

Technical Bulletin: Location Approval For Dams

The bulletin indicates that a temporary dam is exempt from this process. However, it is unclear what is meant by a "temporary dam" and it is recommended that this be defined in this bulletin.

2.2.1 Impacts to Aquatic Ecosystems

It is suggested that this section of the bulletin be expanded to provide the proponent with further information regarding environmental flow or instream flow assessments (i.e. definition of instream flows: the hydrologic characteristics of streamflow required to sustain freshwater and estuarine ecosystems and the human livelihoods and well-being that depend on these ecosystems).

2.2.4 Flooding and Erosion

In both Section 2.2.1 (above) and 2.2.4, it is suggested that it be clarified that negative impacts to the sediment regime should include an assessment under both high flow conditions, as well as bankfull flow and baseflow conditions. It may also be beneficial to clarify that 'sediment regime' refers to both erosion and sediment transport characteristics. In section 2.2.4 it is suggested that further clarification be provided that 'determination of the extent of flooding associated with the construction and operation of a dam' is expected to include a floodplain mapping assessment.

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2.2.4.1 Flooding and Erosion of Private Land

This section clearly refers to additional guidance on obtaining legal authority to flood or erode lands found within the LRIA Administrative Guide (MNR, 2011) which includes reference to the CA role under Section 28 of the *Conservation Authorities Act*. It is suggested that this guidance be also included in the bulletin and that guidance be included that clarifies that the 'determination of the extent of flooding associated with the construction and operation of a dam' is expected to include floodplain mapping.

2.3 Potential Effects Outside the Scope of Location Approval

While having an approval for the location of a dam is the first step in the process, impacts to elements listed in section 2.3 may have an effect on decisions to locate a dam, it is suggested that the text make this clear.

Technical Bulletin: Operating Plans

It is understood that this bulletin is intended for the development of operating plans for new dams, and the related bulletin on Operating and Water Management Plan Amendments is intended for amendments to existing dam's Operating and Water Management Plans. However, it is not clear what triggers the development of an Operating Plan for an existing dam that does not currently have an Operating Plan. This needs to be made clear in this bulletin.

This bulletin proposes monitoring of water levels and flows to ensure compliance with the operating ranges. However, some dams are predominantly single purpose, focusing on flood attenuation and baseflow augmentation and lack power generation, navigation and domestic water supply uses. For these single purpose dams, CAs often use target water levels to satisfy main dam operation objectives rather than set operating ranges. Single use dams have reduced potential for stakeholder conflicts and thus a reduced call for setting pre-set operating ranges based on such operational constraints. Also, there is some concern that formal documentation of all deviations from the operating range will lead to a significant amount of documentation in dry and wet years. This could be avoided by setting a wide operating range, but this would limit the usefulness of the range under average conditions. Therefore it is suggested that the definition of compliance may vary from plan to plan and may include target water levels in some cases.

1.8 Relation to Water Management Plans

The decision to incorporate a new Operating Plan into an existing Water Management Plan will be left to the discretion of the plan proponents (existing and proposed). This discretion appears to be inconsistent with the Water Management Planning Guidelines for Waterpower (2002). The Technical Bulletin should clarify how the principles promoted in the Water Management Planning Guidelines for Waterpower (2002) will be supported. In addition there is a need for more detail on this directive. A section detailing how operating plans integrate with water management plans should be added to achieve this.

For example, In the Grand River Watershed, the current reservoir operating policy was developed based on recommendations from the Provincial Inquiry into the 1974 flood. The operating policy has implications to downstream flood mitigation works (dykes and channel works) and to floodplain mapping as reservoir routing is incorporated into the downstream regulatory flood flows. From a downstream water supply perspective the 1982 Grand River Basin Study (Water Management Plan) further refined the operating policy to deal with the full range of flows. Both flooding and low flow operations are considered. The large reservoirs are designed to operate as a system to reduce flooding

and provide downstream flow augmentation providing water for municipal water supplies and for dilution of treated discharge from municipal waste water treatment plants. The downstream waste water treatment plants and municipal water supply Certificates of Approval (C of A's) are reliant on flow discharged from the large reservoirs. The design of these plans assumes the reservoirs will be operated to supply these flows. The MNR Operating Plan bulletin should include a mechanism to link downstream dependencies such as C of A's to an individual dam's operating plan. This might best be accommodated by expanding the list provided at the bottom of page 6; Water Management Plans and Operation Maintenance and Surveillance manuals should be included in this list.

The directive places a high level of focus on aquatic ecosystem and recreational considerations. Accommodation of ecosystem or recreation considerations should not be at the expense of primary objectives of large multipurpose reservoirs, such as flood control and water supply. Also as explained in the previous paragraph, the Ministry of Environment (MOE) issues C of A's for municipal sewage treatment plants and municipal water supplies. We recommend that MNR investigate opportunities to engage/include MOE in the development of operating plans.

2.2.3 Link to Other Related Objectives (where applicable)

CAs in Ontario have all established plans for their watersheds that deal with a wide range of water management issues. Most CAs refer to these plans as Watershed Management Plans or Watershed Management Strategies while some refer to them as Water Management Plans. Both these plans and Source Water Protection Plans should be included in this section as they have implications to reservoir operating policies and operating plans.

It should be noted that the term Water Management Plan can mean different things to different sectors. In the context of the Technical bulletin it appears as though the term Water Management Plan refers to the water management plans developed for hydro facilities (rather than plans developed by Conservation Authorities as described above), and it is suggested that this be clarified in this bulletin and in the other three bulletins as appropriate.

Technical Bulletin – Operating and Water Management Plan Amendments

1.2 When is a Plan Amendment Required?

As changes in participation on a WMP "Steering Committee", may become necessary, it should be clarified as to whether this would constitute an amendment to the Water Management Plan.

1.4 Responsibility for Plan Amendments

As better information becomes available or new issues such as climate change are identified, it may become difficult for a Water Management Plan "Steering Committee" as currently structured to proactively pursue the necessary analysis and investigation needed to evaluate Plan Amendments which may be contrary to individual proponent's interests. This may be a concern as there is less oversight in the proposed amendment process. However it may be addressed through Plan monitoring and reporting.

2.1 Third Party Amendment Requests

Conservation Ontario has some concerns with the third party amendment request clause in the Operating and Water Management Plan Amendment bulletin. With increasing recreational use of the rivers in southern Ontario, there is increasing demand to operate the reservoirs for fishing, canoeing

etc. Although the importance of recreation is recognized, major reservoirs were built for flood control and to provide water to the river in the summer low flow periods. **The ability of third parties to request a review, is supported in principle. However, it is important that recreational river uses do not compromise public safety and security of water supply for the river. Including a statement that recognizes this will ensure that as the guidance in this bulletin is used by staff and proponents this will be taken into consideration.**

Technical Bulletin: Operating and Water Management Plan Implementation and Reporting

2.0 Standing Advisory Committees

The Technical Bulletin provides for discretionary establishment of a Standing Advisory Committee (SAC). While in some instances such as individual Operating Plans, a SAC may not be required, the benefit of Water Management Plans' (WMPs) has been in developing a collaborative approach with other watershed interests in addressing water management issues. This typically requires a considerable investment in providing information and explanation to a broad range of stakeholders. SACs have been an effective vehicle to maintain on-going dialogue and achieve clarity with respect to how waterpower facilities are operated to balance environmental, social and economic objectives through an open and transparent process. **Conservation Ontario is concerned about the elimination of this requirement in cases where it would be beneficial and suggests that the bulletin include guidance outlining criteria for projects where establishment of a SAC would be required.** The Proponent(s) of Operating or Water Management Plans should be required to demonstrate the manner in which on-going dialogue and consultation will be achieved if a SAC is not established.

3.0 Compliance Monitoring and Reporting

The Technical Bulletin refers to the need for operating plan proponents to complete compliance monitoring and reporting with a Five-Year Implementation Report. It is not clear how this relates to requirements for compliance monitoring and reporting in existing Water Management Plans and/or Operation Maintenance Manuals. Water Management Plans' were developed based on the best information available and were intended to follow an adaptive management approach. As such, information gaps were identified and effectiveness monitoring strategies established to gather information for the next round of plan review and renewals. Many of the information gaps were assigned to the MNR/MOE or a CA). The Five-Year Implementation Report should require discussion on progress in implementing the effectiveness monitoring strategy and further research needs.

3.3 Reporting Deviations from Mandatory Water Levels and Flows

This section deals with reporting deviations from mandatory water levels and flows. In the case of dams where the upstream water levels affect private land owners, it is understandable that very tight operating ranges would be in place and reporting of deviation would be important. In the case of dams that were built to provide flood management, upstream water levels will fluctuate over a wider range and deviate from normal water levels more often. It is expected that this could be dealt with by describing what constitutes an out of compliance deviation in a given operating plan. Clarification on this would be appreciated (see related comment on the Operating Plans bulletin).

Piloting Application of Technical Bulletins

Finally, it is suggested that the MNR consider completing a series of pilot case studies to apply these bulletins in the development of operating plans. Case studies could help inform further refinements of the bulletins for application across the broad range of complex scenarios in the Province.

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Thank you once again for providing the opportunity to provide comments on the Ministry of Natural Resources' four draft technical bulletins on the location and management of dams. Conservation Ontario is supportive of the Ministry's efforts to develop these Technical Bulletins pursuant to the Lakes and Rivers Improvement Act. These comments draw on collective Conservation Authority experience in water management and dam operation and are intended to strengthen the guidance in these documents. Should you have any questions about this letter, please contact Samantha Dupre Policy and Planning Officer (ext 228).

Sincerely,

A handwritten signature in black ink that reads "Joe Farwell". The signature is written in a cursive, slightly slanted style.

Joe Farwell, P.Eng.
Conservation Ontario's Lakes and Rivers Improvement Act Representative
Chief Administrative Officer Grand River Conservation Authority