

Technical Bulletin

LOCATION APPROVAL FOR DAMS



**Ministry of Natural Resources and Forestry
2015**

The Lakes and Rivers Improvement Act (LRIA) provides the Minister of Natural Resources and Forestry with the legislative authority to govern the design, construction, operation, maintenance and safety of dams in Ontario. *The Lakes and Rivers Improvement Act Administrative Guide* (2011) and supporting technical bulletins are designed to provide an overview of the LRIA application and approval process to construct, alter, improve or repair water control infrastructure in Ontario and detailed technical guidance on the design, operation and management of dams. All technical bulletins in this series must be read in conjunction with the overarching *Lakes and Rivers Improvement Act Administrative Guide* (2011).

Electronic versions of this document can be accessed at: ontario.ca/dams

This publication is only available in English.

Cette publication hautement spécialisée Location Approval For Dams Technical Bulletin n'est disponible qu'en anglais conformément au Règlement 671/92, selon lequel il n'est pas obligatoire de la traduire en vertu de la Loi sur les services en français. Pour obtenir des renseignements en français, veuillez communiquer avec le ministère des Richesses naturelles et des Forêts par courriel à mnrwaterpolicy@ontario.ca.

Location Approval for Dams

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1.0 General

1.1 Purpose

This *Technical Bulletin* provides guidance for the consideration of applications for location approval for dams under Section 14 of the *Lakes and Rivers Improvement Act (LRIA)*.

Guidance within this *Technical Bulletin* is to be applied to the construction of permanent dams built to hold back water in a river, lake, pond, or stream, in order to raise the water level, create a reservoir to control flooding or divert the flow of water. This guidance is not intended to be applied to temporary dams and other works (e.g. water crossings, channelizations, enclosures, cables and pipelines) subject to LRIA approval.

The primary focus of the LRIA is to ensure that dams are designed, constructed, operated and maintained in a safe and responsible manner. The Act provides MNRF with the authority to approve the proposed location for a new dam subject to conditions or changes deemed advisable to provide for the purposes of the Act. For the purpose of location approval, MNRF will provide for the purposes of the Act by requiring proponents to demonstrate that reasonable measures have been or will be incorporated into the project's design to address impacts associated with constructing and operating a dam at the proposed location.

Submission requirements have been established within this *Technical Bulletin* to ensure that proponents sufficiently demonstrate that reasonable measures have been or will be incorporated into the project's design to address the impacts associated with constructing and operating a dam at the proposed location. As part of the submission requirements, proponents shall provide MNRF with a preliminary Operating Plan identifying the preliminary measures to be put in place by the proponent to address impacts to those matters outlined in Section 2 of this *Technical Bulletin*.

This *Technical Bulletin* has been organized into five sections.

Section 1 provides a broad overview of location approval and its role in identifying changes or conditions which must be met by the proponent obtain Ministry approval to construct a new dam at a proposed location.

Section 2 identifies the range of effects that may be considered by the Ministry in review of an application for location approval. The location of a new dam may be approved subject to changes or conditions deemed advisable by MNRF, in order to address impacts. Conditions established during location approval are to be addressed by and incorporated into the dam's final operating plan and plans and specifications.

Section 3 provides guidance on the consideration of other regulatory requirements which may be required by the Ministry or other agencies to construct a new dam.

Section 4 identifies information to be included within an application for location approval. These requirements are intended to provide MNRF with sufficient initial information regarding the potential scope, scale and complexity of the proposed project, to identify

changes or conditions which must be met to construct a new dam at the proposed location. Additional detailed project information will be required prior to obtaining approval of the dam's final operating plan, as well as plans and specifications.

Section 5 provides an overview of the process for issuing and obtaining location approval.

The *Lakes and Rivers Improvement Act Administrative Guide* (MNR, 2011) provides an overview of the Act, its application and the process for seeking approval. Where there is a conflict with policy requirements for obtaining approval for the location of a new dam between the *Lakes and Rivers Improvement Act Administrative Guide* (MNR, 2011) and this *Technical Bulletin*, the policy requirements contained within this *Technical Bulletin* shall prevail. This *Technical Bulletin* supersedes all other previously issued MNRF policy requirements for obtaining approval for the location of a new dam.

1.2 Approval for New Works - Section 14 Approval

The LRIA provides MNRF with the legislative authority to regulate the design, construction, operation and maintenance of dams in Ontario.

Section 14 of the LRIA prohibits constructing a new dam in any lake or river in Ontario without prior Ministry approval. Section 14 of the LRIA states:

No person shall construct a dam in any lake or river in circumstances set out in the regulations without the written approval of the Minister for the location of the dam and its plans and specifications.

Obtaining approval to construct a new dam under LRIA Section 14 is a two-step approval process which begins with obtaining approval of the location of the dam and concludes with approval of the dam's plans and specifications. Proponents seeking approval under Section 14 must submit two separate applications – one seeking approval for the location of the dam and another seeking approval of the dam's plans and specifications. Location approval and plans and specifications approval are issued as separate letters of approval.

Section 14 requires proponents to obtain Ministry approval of the dam's location prior to submitting an application for approval of the dam's plans and specifications. Requiring proponents to obtain location approval prior to submitting an application for plans and specifications approval allows MNRF the opportunity to identify necessary changes to the proposed project and/or conditions for constructing a new dam at the proposed location which must be met to proceed with construction of a new dam at the proposed location. Conditions established during location approval are to be addressed by and incorporated into the proponent's application for approval of the dam's plans and specifications.

Section 14 (5) authorizes the Ministry to approve the proposed location for a new dam, subject to such conditions or with such changes that the Ministry considers advisable, to further the purposes of the LRIA.

Section 14 (5) of the LRIA states:

The Minister may approve the location or the plans and specifications of a dam subject to such conditions or with such changes as the Minister considers advisable to further the purposes of this Act.

The purposes of the LRIA, as outlined in Section 2 of the Act, are to provide for:

- a) The management, protection, preservation and use of the waters of the lakes and rivers of Ontario and the land under them;
- b) The protection and equitable exercise of public rights in or over the waters of the lakes and rivers of Ontario;
- c) The protection of the interests of riparian owners;
- d) The management, perpetuation and use of the fish, wildlife and other natural resources dependent on the lakes and rivers;
- e) The protection of the natural amenities of the lakes and rivers and their shores and banks; and
- f) The protection of persons and of property by ensuring that dams are suitably located, constructed, operated and maintained and are of an appropriate nature with regard to the purposes of clauses (a) to (e).

To provide for the purposes of the Act, proponent's seeking location approval must be able to demonstrate that reasonable measures have been or will be incorporated into the project's design to address impacts to those areas outlined within Section 2 of this *Technical Bulletin*.

1.3 When is Location Approval Required?

Section 2 of *Ontario Regulation 454/96 – Construction* requires proponents to obtain approval of the location of a dam under LRIA Section 14 prior to constructing a new dam that holds back water in a river, lake, pond, or stream to:

- raise the water level,
- create a reservoir to control flooding, or
- divert the flow of water.

Requirements for obtaining Ministry approval for the location of a new dam apply equally to proposed projects located on private and/or public lands.

Alterations, improvements and repairs to existing dams may be required to obtain approval under LRIA Section 16, including: retrofits; redevelopments; and expansions and replacements which may affect the dam's safety or structural integrity, or the waters or natural resources, or that may result in a dam being operated in a manner different from that contemplated by plans and specifications approval previously issued by the Ministry.

1.4 Objective of Location Approval

The objective of location approval is to ensure that reasonable measures have been or will be incorporated into the project's design to address the negative impacts to those

interests outlined within Section 2 of this *Technical Bulletin* that may be expected to occur as a result of constructing and operating a dam at the proposed location.

As shown in Figure 1.1, conditions established during location approval are to be used by the proponent to inform the development of the proponent’s application for approval of the dam’s plans and specifications. Conditions established during location approval are to be addressed by and incorporated into the proponent’s application for plans and specs approval.

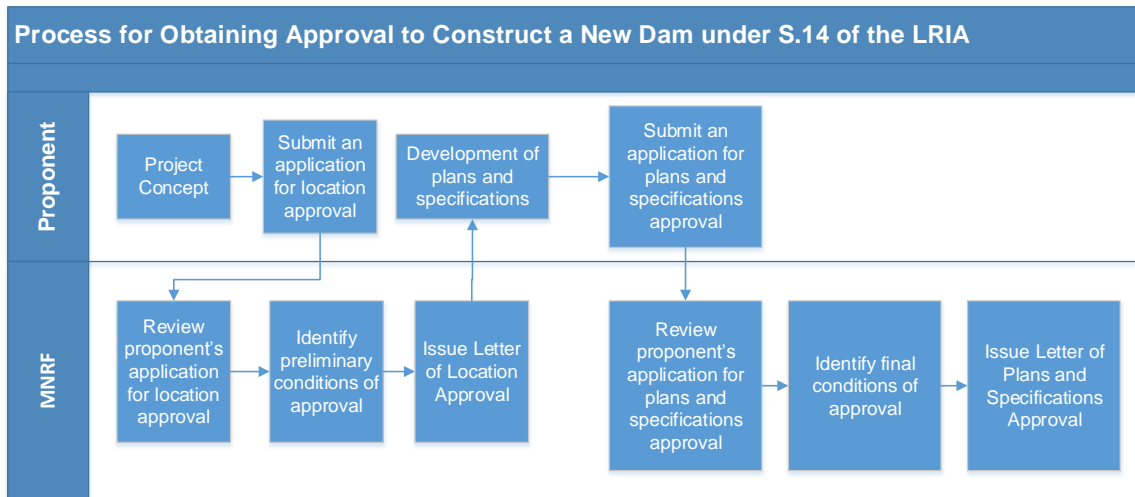


Figure 1.1 Process for Obtaining LRIA Approval to Construct a New Dam

Once obtained, location approval authorizes the proponent to proceed to the next stage of the LRIA approval process and submit an application for approval of the dam’s plans and specifications. Location approval does not confer upon the proponent any right to construct a dam at the proposed location, or any right to occupy or flood lands owned by others, nor does it represent a disposition of any Crown resources. Proponents are responsible for obtaining any necessary legal authority required to construct a dam that occupies the beds and banks of a lake or river, whether private or public.

The granting of location approval does not limit or preclude MNR from imposing additional terms and conditions on the plans and specifications approval under the LRIA, tenure document, or any other Ministry approval (e.g. Endangered Species Act), changes to the operating regime of the facility and other requirements to address ecological/environmental or social considerations or to address established or asserted Aboriginal and treaty rights.

The construction of new dams in Ontario may require approvals of various provincial and federal agencies. As shown in Figure 1.2, location approval under Section 14 to construct a new dam may occur concurrently with the consideration or issuance of other applicable permits and approvals.

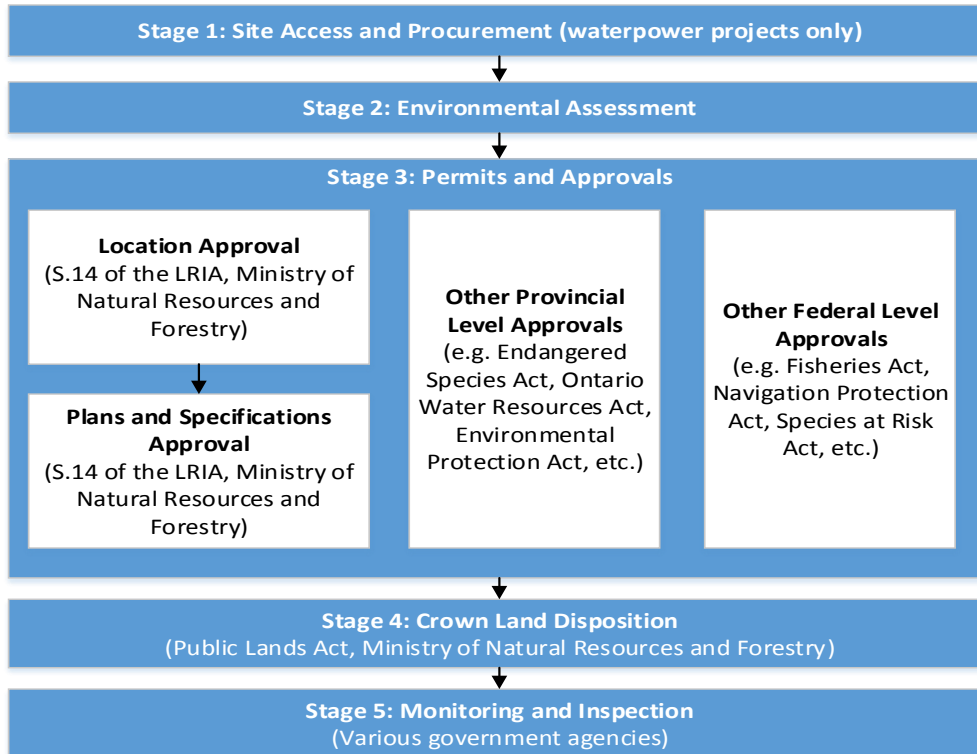


Figure 1.2 Regulatory Stages in the Approval of Dams

While location approval is intended to serve as a tool for ensuring that reasonable measures have been or will be incorporated into the project’s design to address the negative impacts associated with constructing and operating a dam at the proposed location, it is not intended as a tool for ensuring that these measures address impacts to interests regulated by other federal and provincial legislation.

Section 14 location approval does not relieve the proponent from compliance with the provisions of any other applicable federal, provincial, or municipal regulatory requirements and does not provide proponents with any guarantee that subsequent permits and approvals which may be required, will be obtained in order to proceed with the proposed project. Constructing dams in accordance with conditions established by MNR during location approval should not be assumed by proponents to be sufficient for addressing impacts regulated under the authority of other government agencies or for satisfying the proponent’s legal responsibilities for addressing impacts which may be associated with construction and operation of a new dam at the proposed location.

1.5 Roles and Responsibilities for Location Approval

Proponents are responsible for taking reasonable care to address impacts associated with constructing and operating a new dam at the proposed location. MNR is responsible for ensuring that proponents demonstrate sufficient due diligence in fulfilling their responsibility.

Issuance of location approval does not negate a proponent’s responsibility for addressing potential impacts associated with constructing and operating a dam at the

proposed location. Proponents are responsible for ensuring that proposed projects are designed and reviewed by qualified persons with sufficient qualifications, knowledge and experience to assess the potential impacts associated with the construction and operation of a dam and to develop mitigation and post construction monitoring measures commensurate with the significance of potential impacts associated with the construction and operation of a dam at the proposed location.

Conditions established by MNRF as part of its review and approval of the proposed location for a new dam, define MNRF expectations for ensuring that reasonable measures have been or will be incorporated into the project's design to address the negative impacts associated with the construction and operation of a dam at a given location. Proponents are responsible for determining when adoption of additional measures above and beyond those established by MNRF are required to comply with the provisions of any other applicable federal, provincial, or municipal regulatory requirements and that sufficient measures are incorporated into the project design to address ecological/environmental or social considerations or concerns associated with the construction and operation of a new dam.

Additional guidance on addressing impacts associated with construction and operation of a dam may also be available from industry associations, organizations or agencies (e.g. *Best Management Practices Guide for the Mitigation of Impacts of Waterpower Facility Construction*, Ontario Waterpower Association, 2012).

1.6 Applicable Standards and Requirements

Where MNRF established specific standards for the design and construction of projects, proponents will demonstrate that these standards have been complied with in the project proposal or obtain written authorization from MNRF regarding alternative standards.

Insofar as Ministry standards may not represent the most current practices or address all pertinent areas of analysis, the project proponent has flexibility to determine the most applicable standards for their project proposal. In such cases, proponents are encouraged to adopt industry endorsed standards or Best Management Practices (BMPs). In the absence of such standards or BMPs, the onus is on the proponent to ensure that all applicable standards used are based, so far as reasonably practicable, on accepted engineering and scientific principles and practices and have been developed and/or reviewed by qualified persons with the necessary qualifications, knowledge and experience to evaluate their suitability.

1.7 Dams to be Located on Lands Subject to Asserted or Established Aboriginal or Treaty Rights

Ontario as the Crown, has a legal obligation to consult with Aboriginal peoples where it contemplates decisions or actions that may adversely impact asserted or established Aboriginal or treaty rights.

The duty to consult rests solely with the Crown, however, the Ministry may delegate procedural aspects of consultation to third party proponents. These consultation

obligations are separate from and are in no way restricted by provincial policies associated with the administration of LRIA approvals.

Proponents are expected to involve Aboriginal communities who may be directly affected by or have an interest in the construction of a new dam and to develop an engagement approach specific to these interests. To the extent possible, consultation activities associated with the construction of a new dam should be undertaken during the associated environmental assessment process.

1.8 Dams to be Located in Waters under Federal Control

The federal government, through Parks Canada, has jurisdictional control over river systems in Ontario, such as the Trent River and Rideau River heritage canals. Dams built within federally managed canals and rivers are not subject to LRIA approval. Where a dam is proposed to be built within a federally managed system, proponents are responsible for seeking confirmation from Parks Canada as to whether the proposed location is considered part of the canal or river system subject to federal jurisdiction. If it is determined that the location is not within federal jurisdiction, LRIA approval may be required.

1.9 Early Engagement Between MNRF and Proponents

Early and regular engagement between MNRF and proponents is encouraged to discuss the project, identify issues and understand potential regulatory requirements, including data and information required to support LRIA applications. Proponents are encouraged to meet with MNRF as early in the project concept phase as reasonably practical.

In advance of the meeting, the proponent should provide MNRF with a project description and any information collected in support of determining the initial feasibility of the proposed project.

The Ministry will provide the proponent with access to available information pertaining to the proposed location and preliminary information needs associated with issuance of LRIA approval.

2.0 Range of Effects to Consider

2.1 General

Proponents seeking location approval shall identify actions to be taken by the proponent to address potential negative impacts to the interests outlined within the subsections below.

In most cases, construction of a new dam will be subject to requirements established under the Environmental Assessment Act (EAA). Where an EA is required, applicants must provide MNRF with a copy of the documentation prepared during the course of satisfying requirements under the EAA such as, but not necessarily limited to: the Final Environmental Report (ER); the Statement of Completion; any other supporting material deemed pertinent to the project; and any modifications to the project made after the Statement of Completion including how any EAA Part II Order requests were addressed.

Documentation prepared during the EA will be the Ministry's primary tool for identifying the range of potential effects associated with construction of the dam and determining whether additional changes or conditions are required for approval to construct a new dam at the proposed location. Where an EA is not required, MNRF will identify in writing any additional information required to complete the review for location approval.

The following subsections provide additional clarity regarding the potential range of effects which may need to be considered by the proponent as part of an application for location approval. The potential range of effects may vary based on the scope and ecological/ social context of the proposed dam, and all considerations noted within the following subsections may not be applicable in all circumstances. The degree to which measures should be taken by the proponent to address impacts to the interests outlined below is dependent on: the value of the resource affected; geographic extent of the effect; duration and frequency of the effect; irreversibility of the effect; ecological/ social context; and, where applicable, the relative priorities for investigation and mitigation established for the project during the EA process.

2.2 Crown Land Use Planning Direction

All new dams in Ontario must be constructed and operated in accordance with any Crown land use planning direction, legislation and policy (where such direction exists) including, but not necessarily limited to:

- the Crown Land Use Policy Atlas;
- other approved Ministry Crown land use plans and guides, where there is no direction in the Crown Land Use Policy Atlas; or,
- Community Based Land Use Plans approved under the *Far North Act*, or in the absence of a Community Based Land Use Plan, constructed and operated in a manner consistent with the *Far North Act*.

MNRF will review the proponent's submission for location approval to identify any potential conflicts with Crown land use planning direction. Where Crown land use

planning direction is such that a form of tenure for Crown land may not be issued, location approval will not be granted.

In such situations, proponents are encouraged to discuss the need for an amendment to Crown land use planning direction with MNRF, to permit the proposed activity or to discuss alterations to the proposed project to ensure consistency with land use direction.

2.3 Existing Rights Holders

In some instances, constructing a new dam at the proposed location will affect public lands that are subject to an existing rights holder (e.g., trapper, lease holder, etc.).

Where an application for location approval overlaps with rights previously granted to an individual or company, the applicant is required to obtain legal authority from the rights holder for the proposed work, before location approval will be granted.

2.4 Flooding and Erosion

Ensuring dams do not cause unauthorized direct or indirect flooding or erosion to lands owned by others, above that which is expected to occur under existing conditions, is an important consideration in providing for the interests of riparian owners (LRIA Section 2(c)) and the protection of persons and property (LRIA Section 2(f)).

Proponents seeking location approval shall provide MNRF with a site plan identifying the area to be flooded by the dam and the lands of persons other than the proponent that may be affected by the flooding. The analyses used by the proponent to determine the expected extent of flooding and erosion associated with construction and operation of the proposed dam must be determined by a Professional Engineer licensed to practice in Ontario.

2.4.1 Flooding and Erosion of Private Land

Where the proposed project has the potential to cause flooding or erosion of privately owned lands, location approval may be issued on the condition that the proponent obtain the necessary legal authority to flood or erode these private lands, prior to plans and specifications approval.

Additional guidance on the legal authority to flood or erode lands is contained within the *LRIA Administrative Guide (MNR, 2011)*.

2.4.2 Flooding and Erosion of Public Land

Where the proposed project has the potential to cause flooding or erosion of public land (both encumbered and unencumbered), location approval may be issued on the condition that the proponent obtain the necessary legal authority to cause flooding or erosion of public land under the *Public Lands Act (PLA)*. Authorization for occupation

and for both permanent and periodic flooding of Crown land is required. For administrative purposes, MNRF may choose to formally issue PLA approvals subsequent to the Ministry's approval of the dam's plans and specifications. Obtaining authorization to cause flooding or erosion of public land may be identified as a condition of obtaining both location approval and as a condition of obtaining plans and specifications approval.

2.5 Impacts to Aquatic Ecosystems

Addressing impacts to aquatic ecosystems is an important consideration in providing for the management, perpetuation and use of fish, wildlife and other natural resources dependent on the lakes and rivers (LRIA Section 2(d)), and providing for the protection of the natural amenities of the lakes and rivers and their shores and banks (LRIA Section 2(e)).

As applicable to the project scope, MNRF may approve the location of a new dam, subject to changes or conditions deemed advisable to address impacts to the following key characteristics of aquatic ecosystems:

- hydrologic regime;
- sediment regime;
- thermal regime; and
- biologic components.

2.6 Impacts to Wildlife Habitat

Addressing impacts to wildlife habitat is an important consideration in providing for the management, perpetuation and use of wildlife dependent on the lakes and rivers (LRIA Section 2(d)) and the protection of the natural amenities of the lakes and rivers and their shores and banks (LRIA Section 2(e)).

Addressing impacts to wildlife habitat is fundamental to the management and perpetuation of self-sustaining wildlife populations. Lakes and rivers often include wetland areas (i.e. marshes, bogs, swamps and fens) which provide significant riparian habitat for wildlife which if damaged, destroyed or otherwise affected may result in the loss of a species locally or reductions in the size of their populations. Furthermore, the creation or expansion of a reservoir may have negative effects on wildlife habitat such as seasonal concentration areas and animal movement corridors.

As applicable to the project scope, MNRF may approve the location of a new dam, subject to changes or conditions deemed advisable to address impacts to wildlife habitat.

2.7 Impacts to Natural Amenities

As applicable to the project scope, MNRF may approve the proposed location for a new dam subject to changes or conditions deemed advisable to provide for the protection of

the natural amenities of the lakes and rivers and their shores and banks (LRIA Section 2(e)) such as:

- shorelines and river banks (e.g. controlling erosion, ice scour etc.);
- trees (including merchantable timber);
- rare vegetation not subject to protection under the ESA; and
- unique physical features (e.g. wetlands, beaches etc.).

2.8 Impacts to the Use of Water by Adjacent Property Owners

Addressing impacts to the use of water by riparian and non-riparian owners of property adjacent to water bodies is an important consideration in providing for the management, protection, preservation and use of the waters of lakes and rivers of Ontario and the land under them (LRIA Section 2(a)), and providing for the protection of the interests of riparian owners (LRIA Section 2(c)).

As applicable to the project scope, the location of a new dam may be approved subject to changes or conditions deemed advisable to provide for the interests of riparian and non-riparian owners of property adjacent to water bodies.

Additional information on the interests of riparian owners which may be affected by the construction or operation of a dam is available within MNR's *LRIA Administrative Guide* (MNR, 2011).

Proponents seeking location approval shall demonstrate that affected property owners have been consulted. In most cases, this consultation will be evidenced within the documentation prepared by the proponent during the EA process. The analysis used by the proponent to determine the extent of changes in water levels and flows expected to occur at properties adjacent to water bodies as a result of constructing and operating a dam at the proposed location must be determined by a Professional Engineer licensed to practice in Ontario.

2.9 Impacts to the Use of Water by Existing Dam Owners

Addressing impacts to the existing use of water by upstream and downstream dam owners is an important consideration in providing for the management, protection, preservation and use of the waters of the lakes and rivers of Ontario and the land under them (LRIA Section 2(a)) and the protection of the interests of riparian owners (LRIA Section 2(c)).

As applicable to the project scope, the location of a new dam may be approved subject to changes or conditions deemed advisable to address impacts to the use of water by existing dam owners.

Proponents seeking location approval shall demonstrate that upstream and downstream dam owners have been consulted. In most cases, this consultation will be evidenced within the documentation prepared by the proponent during the EA process. The analysis used by the proponent to determine the extent of potential impacts to the use of water by upstream and downstream dam owners must be determined by a Professional Engineer licensed to practice in Ontario.

2.10 Impacts to Public Use of Water

As applicable to the project scope, the location of a new dam may be approved subject to changes or conditions deemed advisable to provide for the protection and equitable exercise of public rights in or over the waters of the lakes and rivers of Ontario (LRIA Section 2(b)) including, but not necessarily limited to impacts to the existing use of water for purposes such as:

- fishing, hunting and fur trapping;
- recreational boating (e.g. boating, canoeing, kayaking, rafting, etc.);
- swimming and beaches;
- commercial tourism and recreational activities; and
- winter recreational activities such as snowmobiling, cross country skiing and ice fishing.

MNRF's review of potential impacts to public use of water is not intended to address those uses of water regulated by other ministries including the Ministry of Environment and Climate Change's administration of the Ontario Water Resources Act or the Environmental Protection Act.

3.0 Consideration of Other Regulatory Approvals

3.1 General

Construction of new dams in Ontario is subject to various requirements established under other federal and provincial regulatory provisions.

Location approval is not a regulatory tool to address the legislative interests or requirements of other federal and provincial legislation. Proponents are responsible for ensuring that all necessary federal and provincial approvals have been obtained prior to the construction and operation of the proposed project.

While MNRF is not responsible for ensuring dams are constructed in accordance with other federal, provincial, or municipal requirements, MNRF may where deemed necessary, issue location approval subject to the condition that the dam be constructed and operated in accordance with any requirements established under the authority of other government approvals. Proponents are responsible for ensuring that this condition has been met.

MNRF is not responsible for verifying that approvals from other agencies have been issued, prior to issuing plans and specifications approval.

3.2 Other Required Approvals

The coordination of location approval with the approvals/processes of other agencies is described below. Where deemed necessary, arrangements and protocols may be established between MNRF and other government agencies to facilitate the coordination of approvals. Unless specified in this sub-section, or through an additional arrangement/protocol, MNRF will not withhold location approval while a proponent pursues other government approvals which may be required to construct a new dam at the proposed location. Conversely, obtaining location approval should not be identified as a pre-condition of obtaining any other approval other than plans and specifications approval under the LRIA, without the express written direction of MNRF.

3.2.1 Environmental Assessment Act

The EAA sets out a planning process to ensure the environmental effects of a project are evaluated and documented prior to proceeding to construction. The EAA promotes responsible environmental planning and facilitates the participation of interested persons in the project's design. In the EAA, environment is broadly defined and includes the natural, social, cultural and economic environment.

As outlined in Section 4.4 below, documentation prepared by the proponent during the course of satisfying requirements under the EAA will be the Ministry's primary tool for identifying the range of potential effects associated with the construction and operation of the facility. MNRF participates in the EA planning process to provide guidance and

advice to assist proponents in their consideration of MNRF's mandate and interests during project planning in advance of permitting and approvals. MNRF may also identify opportunities to coordinate other provincial requirements throughout the EA process that will assist a proponent in making its decisions on the level of technical detail to include in the EA process. MNRF will review and provide comments to the project proponent on documentation developed in support of satisfying the EA process, including copies of the proponent's Environmental Report.

During the EA process, MNRF will identify any applicable legislative and regulatory requirements under the LRIA that must be satisfied prior to the construction and operation of the proposed facility. In the context of Location Approval, this includes identifying the submission requirements outlined within this *Technical Bulletin*, the Location Approval process, as well as any Ministry approved methodologies, standards, and/or guidelines that must be followed by the proponent when seeking Location Approval. Where no approved standards, guidelines, or methodologies exist, MNRF may provide scientific and/or technical advice on methodologies selected by the proponent.

MNRF will not issue location approval until the proposed project has completed the applicable EA process. A proponent is not required, but may elect, to incorporate location approval considerations during the EA process.

3.2.2 Niagara Escarpment Planning and Development Act

Dams to be located in the Niagara Escarpment Planning Area are required to meet the requirements of the Niagara Escarpment Planning and Development Act and the Niagara Escarpment Plan (NEP).

Section 24(3) of the Niagara Escarpment Planning and Development Act requires that Niagara Escarpment Development Permits be issued before any other permit, approval or authorization is issued and that other approvals must be consistent with the Niagara Escarpment Development Permit.

Where a dam is proposed to be built within the Niagara Escarpment Planning Area, location approval will be withheld pending the proponent obtaining any necessary Niagara Escarpment Development Permit(s).

3.3 Other Separate Approvals

Construction of new dams may be subject to requirements established under other federal and provincial legislation. These other approvals are listed for information purposes herein.

MNRF will not withhold or defer location approval for the proposed project while a proponent satisfies applicable requirements under the federal and provincial legislation outlined in this subsection. Processes and requirements established under the authority of these other federal and provincial legislation and regulations will be used to ensure that sufficient measures have been included within the proponent's final project design to

address potential impacts associated with the construction and operation of a new dam at the proposed location.

3.3.1 Fisheries Act

The protection of fish and fish habitat is a federal responsibility and is administered by Fisheries and Oceans Canada (DFO) under the authority of the *Fisheries Act* (R.S.C., 1985).

For LRIA applications involving dams, MNRF will provide for the management, perpetuation and use of fish through the *Fisheries Act*, as administered by DFO. While MNRF will not withhold location approval, LRIA plans and specifications approval for the proposed dam will not be issued by MNRF until DFO has provided advice on serious harm to fish. Serious harm to fish is defined in the *Fisheries Act* as “the death of fish or any permanent alteration to, or destruction of, fish habitat”.

In support of DFO decision making and MNRF’s provincial interest in fisheries management, MNRF will where available, provide fisheries management objectives, fish and habitat information, and identify fish passage interests for consideration by DFO when they are reviewing development proposals and recommending measures to avoid, mitigate or offset serious harm to fish that are part of or that support a commercial, recreational or Aboriginal fishery.

3.3.2 Endangered Species Act

Through the *Endangered Species Act* (ESA, R.S.O., 2007), Ontario established legislative requirements for the protection and recovery of species at risk and/or their habitat.

3.3.3 Navigation Protection Act

The obstruction of public rights to navigation is a federal responsibility and is administered by Transport Canada (TC) under the authority of the *Navigation Protection Act* (NPA, R.S.C., 1985).

3.3.4 Ontario Water Resources Act

The *Ontario Water Resources Act* (OWRA, R.S.O, 1990) regulates the taking of water including, but not necessarily limited to, impacts to water quality and existing municipal, commercial and agricultural purposes, and is administered by the Ontario Ministry of Environment and Climate Change (MOECC).

3.3.5 Ontario Heritage Act

The protection of historical and archaeological sites is the responsibility of the Ontario Ministry of Tourism, Culture and Sport (MTCS). Under the *Ontario Heritage Act* (R.S.O.

1990), a license is required to carry out archaeological fieldwork, or to alter or remove artifacts or other physical evidence of past human use or activity from a known land or marine archeological site. As a term and condition of the license, consultant archeologists are required to follow the *Standards and Guidelines for Consulting Archaeologists*.

If historical or archaeological sites are determined to be located at the dam site, or in the area to be flooded by the dam, the proponent will be advised to contact the appropriate MTCS or other authority for direction.

4.0 Location Approval Submission Requirements

The review of applications for approval of the dam's location is based on the information detailed herein.

Proponents should be aware that the information provided below is general in nature and is not intended to limit or preclude MNRF from requesting additional information required in order to facilitate subsequent LRIA approval decisions. Proponents will be required to provide MNRF with additional detailed project-specific information as part of their subsequent application for plans and specifications approval.

4.1 Application for Location Approval

Proponents shall submit a written request for location approval to the Ministry identifying the name of the proponent and contact information (e.g. phone number, email and mailing address).

The written request shall be accompanied by the information identified in the subsections below. Where this information has been provided within another document (e.g. EA Environmental Report), the proponent may simply identify the specific location of the required information.

4.2 Site Plan

As stated in LRIA Section 14(2)(a), proponents shall provide MNRF with a diagram showing:

- proposed location of the dam (e.g. UTM coordinates);
- area to be flooded;
- lands of persons other than the proponent that may be affected by the flooding including:
 - approximate boundaries of all adjacent properties (e.g. private lands, areas regulated as provincial parks, conservation reserves or wilderness areas, mining claims, patented lands, and the location of upstream and/or downstream dams); and
 - owners of all adjacent properties.

For the purpose of location approval, upstream flooding limits may be based on the top-of-dam elevation. However, a backwater analysis may be required as part of the subsequent plans and specifications approval particularly for flat gradient streams.

Any additional known site constraints associated with the construction and operation of the proposed work should also be identified (e.g. legal, physical, socio-economic and environmental).

4.3 Project Description

As stated in LRIA Section 14(2)(a), proponents shall provide MNRF with a statement explaining at a minimum:

- the purpose (e.g. waterpower, water control etc.), type (e.g. concrete, earth embankment etc.) and size of the dam (e.g. dam height, length of crest etc.);
- whether the dam will be temporary or permanent;
- quantity of water to be held (e.g. storage volume); and
- rate of flow of water that may be diverted.

4.4 Environmental Assessment Results

Proponents shall provide MNRF with a copy of documentation prepared during the course of satisfying requirements under the EAA, such as, but not necessarily limited to the Final Environmental Report (ER) for the project, the Statement of Completion and any other supporting material. Where applicable, proponents will identify any modifications to the project made after the EA Statement of Completion.

The documentation prepared during the course of satisfying EAA requirements will be the Ministry's primary tool for identifying the range of potential effects associated with construction and operation of the dam. Where an EA is not required, MNRF will identify in writing any additional information required by the Ministry to complete its review for location approval.

Where commitments were made during the EA process to address impacts to those areas outlined in Section 2 of this *Technical Bulletin*, the specific measures to fulfill these commitments will be included within the preliminary Operating Plan and/or preliminary drawings as appropriate. Where no commitment to address impacts to those areas outlined in Section 2 of this *Technical Bulletin* were made during the EA process, the onus is on the proponent to determine the degree to which such measures should be adopted in order to address any remaining effects, outstanding concerns, or commitments made by the proponent following the completion of the EA.

4.5 Preliminary Drawings

Proponents shall provide MNRF with a set of preliminary drawings provided in plan, profile and cross section view, with dimensional data appropriately labelled (e.g. length, width, horizontal and vertical dimensions). The preliminary drawings should include the entire dam structure, showing the entire extent of the dam and construction site, including construction access.

Preliminary drawings may be of a conceptual nature and are not intended to serve as the final, detailed engineering drawings which will be required by MNRF as part of the subsequent plans and specifications review.

In most cases, preliminary drawings must be prepared by a Professional Engineer licensed to practice in Ontario. Guidance on the type of works which may not need to be

designed by a Professional Engineer has been provided within the *LRIA Administrative Guide (MNR, 2011)*.

4.6 Preliminary Operating Plan

Proponents shall provide MNRF with a preliminary Operating Plan outlining how water levels and flows will be managed throughout the year.

An Operating Plan is required for all new dams as a means to provide clarity and certainty with respect to how water levels and flows will be managed. The level of detail in the preliminary Operating Plan will depend on the complexity of the dam, including factors such as existing social, economic, and environmental constraints which may affect the dam's operation.

For dams that have limited or no control over the management of water flows and levels (e.g. overflow weirs, agricultural ponds, wetland conservation projects or dams built to establish a pond for domestic use), or where the potential impact to existing social, economic or environmental interests are minimal, an Operating Plan may be limited to a short, high level overview of the dam and its proposed operations. In situations where the dam is more complex and has the ability to significantly impact existing social, economic or environmental interests through the manipulation of flows and levels, the Operating Plan will need to be more comprehensive.

Given the preliminary nature of the Operating Plan, some aspects of the Plan will require completion closer to commencing operation of the dam. The objective of the preliminary Operating Plan is to provide MNRF with an early indication of the measures to be taken by the proponent to address the impacts associated with the operation of a dam at the proposed location.

While Operating Plans need to be tailored to each applicable project, a typical Operating Plan will define and describe:

- operational objectives (i.e. benefits to be achieved);
- operational constraints (i.e. actions taken to prevent doing harm);
- operating regime (i.e. operating band/ normal operating range);
- how compliance with the operating regime will be monitored (i.e. compliance monitoring and reporting commitments); and
- measures to be taken by the proponent to monitor for effects associated with the operation of the dam (i.e. post construction effects and/or effectiveness monitoring commitments).

The preliminary Operating Plan should present the above information in a clear, logical and user friendly manner. Any supporting documentation should be clearly referenced.

Operating the dam in accordance with the preliminary Operating Plan will be listed as a condition of location approval. A draft final Operating Plan shall be provided to MNRF as part of the subsequent plans and specifications submission. Proponents must ensure the Plan is consistent with any operational constraints established under the authority of other government approvals.

For new dams with limited to no operational control over water levels and flows (e.g. dams operated on a seasonal basis, overflow weirs, agricultural ponds, wetland conservation projects, dams built to establish a pond for domestic use etc.) or where the potential impact to existing social, economic or environmental interests is not significant, location approval may be granted subject to the condition that the proponent prepare and submit a final operating plan as part of their subsequent application for LRIA plans and specifications approval. Proponents should be aware that, as per Section 2(2) of Ontario Regulation 454/96, approval is required before a person operates a dam in a manner different from that contemplated by plans and specifications approved under LRIA Section 14 or Section 16.

In situations where the dam is more complex and has significant control over water levels and flows, or where the potential impacts to existing social, economic or environmental interests are significant, MNRF will formalize requirements for preparing an Operating Plan through the issuance of an order under the authority of LRIA Section 23.1.

5.0 Approval Process

MNRF has established service targets for the review and issuance of approvals. In the event that these targets cannot be achieved on a project specific basis, MNRF will inform the proponent at least 10 business days prior to the expiry of a service target that an extension is required, along with supporting rationale. Extensions will not exceed one half the initial relevant target (i.e. timelines cannot extend more than 50%) and will only be required once.

5.1 Receipt of Written Request for Location Approval

The location approval process begins with the submission of a written request for approval of the location for the dam. While an application cannot be considered complete until all submission requirements have been met and MNRF cannot issue location approval until the proposed project has completed the applicable EA process, proponents may begin the application process for location approval at any stage of the project planning and approval process.

5.2 Review of Application Information and Scoping Meeting

As outlined within the MNRF's *LRIA Administrative Guide*, within 30 to 60 business days following the receipt of a request for approval, MNRF will review the application information provided by the proponent.

Where required, within 15 days of the completion of that review, MNRF will arrange a scoping meeting with the proponent to discuss the application review and approval process, and requirements for additional information beyond that contained in the proponent's written request for location approval.

For more information on the scoping meeting, refer to Section 3.5.2 of the *LRIA Administrative Guide (MNR, 2011)*.

5.3 Confirmation of Submission Requirements

Within 15 business days following the scoping meeting, MNRF will confirm in writing the submission requirements for specific projects. Project specific submission requirements will include information required to complete a review of the general submission requirements outlined in Section 4 above in accordance with the scope of MNRF's review for location approval, as outlined in Section 2 and Section 5.5.1 of this *Technical Bulletin*.

5.4 Confirmation of Receipt of Submission Requirements

Within 15 business days of receipt of the submission requirements, MNRF will provide the proponent with written confirmation that the submission requirements have been met

as confirmed in Section 5.3 and that the 60 business day submission review period has commenced.

5.5 Review of the Location Approval Submission

MNR will have 60 business days to complete a review of the proponent's submission, following confirmation that the submission requirements have been received.

5.5.1 Scope of MNR Review

MNR's review of the submission package will:

- a) ensure that the proponent has met the submission requirements outlined within this *Technical Bulletin*;
- b) verify that construction of a new dam at the proposed location is not inconsistent with the Ministry's Crown land use planning direction or rights to use Crown land previously granted to others;
- c) ensure that the proponent's preliminary Operating Plan:
 - a. is complete;
 - b. is consistent with documentation prepared during the EA process; and
 - c. clearly identifies to the extent possible, measures to be taken by the proponent to address impacts associated with the operation of the dam;
- d) ensure the proponent's preliminary drawings:
 - a. are complete;
 - b. are consistent with documentation prepared during the EA process; and
 - c. are prepared by a Professional Engineer licensed to practice in Ontario; where required;
- e) ensure that the proponent has consulted with adjacent property owners and upstream and downstream dam owners prior to preparing the preliminary Operating Plan;
- f) ensure that the analyses used by the proponent to identify impacts to the following areas has been prepared or reviewed by a Professional Engineer licensed to practice in Ontario:
 - a. areas to be flooded by the dam and the lands of persons other than the proponent that may be affected by the flooding;
 - b. impacts to the use of water by adjacent property owners; and
 - c. impacts to the use of water by existing dam owners;
- g) identify as applicable to the project scope, any outstanding concerns that must be addressed (and the timeframe for addressing them) and any conditions which must be met by the proponent to construct a new dam at the proposed location; and
- h) determine whether or not to formalize requirements for preparing an Operating Plan under the authority of LRIA Section 23.1.

NOTE: In some instances, the proponent may wish to complete additional analysis and/or discussions with other government agencies or interested parties prior to advancing certain aspects of the proposed project beyond a conceptual level. In these circumstances, the proponent should identify the additional information to be collected and timeframe for collecting it.

Upon MNRF's review of the application, MNRF may issue location approval, refuse location approval or request additional information as outlined below.

5.5.2 Requests for Additional Information

During and/or following the review of the proponent's submission package, MNRF may request additional information, where that information is required in order to complete review requirements as outlined in Section 5.5.1 above.

Where additional information is required, MNRF will identify in writing what additional information is requested, the rationale for the request, and when the additional information is to be provided. In such circumstances, the 60 day review timeline will be put on hold until MNRF receives the requested information. Depending on the information requested, MNRF may request that the additional information be provided prior to:

- issuing location approval;
- issuing plans and specifications approval;
- approving the final Operating Plan;
- commencement of construction activities; or
- first operation of the dam (e.g. first filling of the reservoir)

Upon receiving a request for additional information from the Ministry, the proponent may:

- agree to provide the additional information by the specified time;
- request a change to the specified time for submitting the information;
- request a review by the Regional Director of the required information; or
- refuse to provide the additional information.

Where the proponent agrees to provide the additional information, MNRF may choose to keep the application on hold or return the application to the proponent, depending on the scope of the request and the time frame for providing it. This determination will be made by MNRF through discussions with the proponent. Where necessary, the decision can be confirmed between MNRF and the project proponent in writing. Where an application is returned to the proponent, the 60 day review period will restart upon submission of the additional information requested.

Where a proponent objects to the information request, the proponent may, within 15 business days of receiving the request, request a review of the required information by the applicable MNRF Regional Director. Upon review by the Regional Director, MNRF will confirm the additional information required, if any and the applicable timeframe for providing the required information in writing with the supporting rationale. Upon receipt of the written decision from the Regional Director, the proponent has 15 business days to respond to the Ministry with their intent to comply with the request for additional information or to refuse the request. If a proponent wishes to refuse the request (prior to or following a review of the request by the Regional Director) or fails to respond within 15 business days of notice from the Regional Director, MNRF will issue the proponent a notice of Intent to Refuse Location Approval. This notice will identify that unless a request for an inquiry is received from the proponent within 15 business days, the application will be refused. Requests for an inquiry under the LRIA are referred by MNRF to the Office of the Mining and Lands Commissioner.

5.6 Issuance of a Decision on an Application for Location Approval

In issuing a decision on an application for location approval, MNRF may:

- approve the application;
- approve the application subject to such conditions or with such changes considered advisable to further the purposes of the Act; or
- refuse to grant the approval, if construction of the dam at that location would be inconsistent with the purposes of the Act.

Where MNRF intends to approve the application subject to conditions or changes, a Letter of Approval will be issued to the proponent outlining the conditions or changes which must be met by the proponent to construct a new dam at the proposed location.

The Letter of Approval will specify that the approval will expire after 24 months from the date of issuance, unless an application for the approval of the dam's plans and specifications is made within that time. If the proponent has not obtained plans and specifications approval within the 24 months, the proponent may seek an extension of the timeframe outlined within the Letter of Approval. Extension requests must be applied for by the proponent and granted by the MNRF, in advance of the approval expiry date. Where an approval expires, the proponent is required to reapply for location approval.

Where MNRF has refused location approval, a Letter of Intent to Refuse Location Approval will be issued to the proponent identifying the supporting rationale and any additional measures the proponent can take to address any outstanding concerns. The Letter of Intent to refuse location approval will notify the proponent that unless MNRF receives a request from the proponent for an inquiry within 15 business days, the application will be refused. Requests for an inquiry under the LRIA are referred by MNRF to the Office of the Mining and Lands Commissioner.

Additional information on appeals to the Office of the Mining and Lands Commissioner are referenced in the *LRIA Administrative Guide (MNR, 2011)*.