Exhibit B

Tab 5

Class Environmental Assessment for Waterpower Projects

October 2008

Prepared by:

Ontario Waterpower Association

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1.0 INTRODUCTION

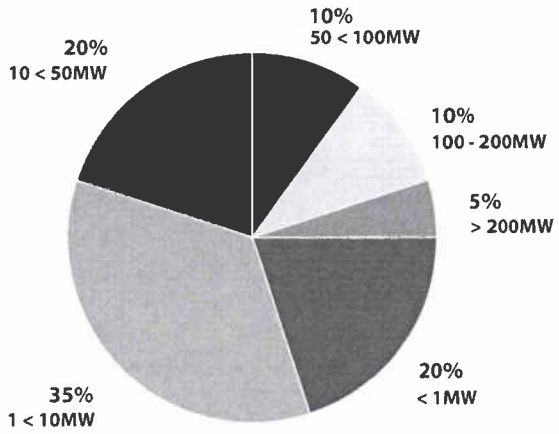
1.1 Ontario's Waterpower Resources

The province of Ontario contains more than 250,000 lakes and tens of thousands of kilometers of rivers and streams. From a hydrologic perspective, watersheds that drain to the Great Lakes, Hudson Bay and the St. Lawrence River dominate the province. The drainage patterns, topography, geology and land cover within these watersheds are important determinants of waterpower potential.

Ontario's water resources serve a wide range of environmental, social, cultural and economic objectives, including those related to waterpower generation. At a regional or provincial scale waterpower generation provides a number of important benefits. As a renewable and secure source of energy indigenous to the province, waterpower production offsets potential greenhouse gas emissions, is the most efficient method of energy conversion and best responds to changes in electricity demand.

Until the early 1950s almost all of Ontario's electricity needs were served through falling water – waterpower is the energy engine upon which the province was built. Our history in hydro dates back well over a century, firmly embedding renewable energy production and development in the social, cultural, economic and environmental fabric of Ontario. There are almost 200 operating waterpower facilities in Ontario that, collectively, account for approximately one-quarter of the province's current installed capacity (8,000 Megawatts [MW]) and electricity generation (35-38 Terrawatt hours (TWh) annually). Facilities in the province range in size from less than 100 kilowatts (kW) to more than 1,000 MW. The most recent inventories undertaken suggest that there is the economic and practical potential to increase waterpower's contribution in Ontario by fifty percent (50%) or more. **Figure 1** outlines the range in nameplate capacity of the province's current waterpower facilities.

Figure 1 Ontario's Existing Waterpower Facilities – Percentage by Nameplate Capacity



Source: OWA

The mission of the Ontario Waterpower Association (OWA) is to be the collective voice for the Ontario waterpower industry by:

- Representing the common interests of Ontario's waterpower industry in a corporate relationship with government;
- Providing an effective forum for coordinating and promoting the common interests of the waterpower industry in Ontario;
- Enhancing the competitiveness of the Ontario waterpower industry; and
- Identifying common interests and cooperative relationships with interested organizations to promote a positive image for waterpower.

Since its inception in 2001, the OWA has grown to represent the interests of more than 125 individual companies active in the waterpower industry. Members are required to either be:

- the owner of a waterpower facility in Ontario;
- involved in a business related to the Ontario waterpower industry; or
- support waterpower as a renewable and sustainable energy source.

Membership includes more than 95% of Ontario's waterpower generators and a number of firms specializing in engineering, the environment, law, Aboriginal Communities construction and development financing.

The OWA is the applicant for this Class Environmental Assessment (Class EA). The OWA began to pursue this Class EA with the preparation of an initial Terms of Reference (ToR) in 2002. Throughout this initiative, the Association has sought advice and input from:

- provincial and federal government agencies;
- Aboriginal interests;
- resource stewardship, environmental and energy non-government organizations; and
- the public.

The development of the Class EA has provided the OWA with the opportunity on behalf of the waterpower industry to understand, appreciate and consider the interests of representative organizations, regulators and the public. The Class EA positions the OWA as having lead responsibility for remaining current with best practices and information of direct relevance to waterpower projects in Ontario and providing that information to project proponents. It also requires that the OWA continue to foster and maintain positive and productive relationships with those with an interest in waterpower. This role is consistent with the approach the organization has taken in working directly with government agencies, Aboriginal organizations, other interests and the public in the development of the Class EA.

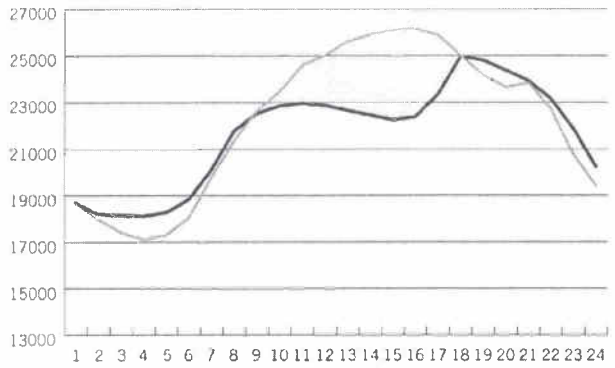
1.2 Waterpower's Contribution to Ontario's Electricity Requirements

Ontario's electricity system is characterized by its diversity – multiple sources, including waterpower, satisfy our electricity demands. Until the early 1950s, almost all of these needs were met by waterpower. In the decades that followed, the province turned to fossil, nuclear and, now, alternative renewable sources including wind, biomass and solar energy. Waterpower currently accounts for approximately one-quarter of the province's installed capacity (MW) and electricity production (MWh).

Waterpower plays a particular role in the province's overall system mix. It provides base-load and peak-load generation. It has proven critical to system reliability – leading Ontario's recovery from the blackout in 2003. It provides voltage support, black start and other ancillary services. Looking ahead, the province's reliance on the attributes of waterpower generation is expected to increase.

As illustrated in **Figure 2**, Ontario now has a "peak demand" for electricity both in the summer and winter months. Along the x-axis of the graph are the MW of electricity required. The y-axis is the hour of the day, beginning at 1:00 a.m. In terms of system operations, as important as the magnitude of the peak is it's duration as is the slope of the curve going up and down. In both summer and winter months, the system must "ramp-up" in the early morning hours. In the winter, a second peak occurs in the early evening. Conversely, the summer is characterized by an extended period of peak demand over the course of the day. Peak demands change constantly (instantly, hourly, daily, seasonally) and Ontario's diversity of electricity supply must be managed to satisfy this changing demand. It is in this context that waterpower's unique flexibility is particularly important.

Figure 2 Ontario's Hourly Electricity Demand – Summer (gray) and Winter (black)



Source: IESO

Figure 3 Hourly Waterpower Production

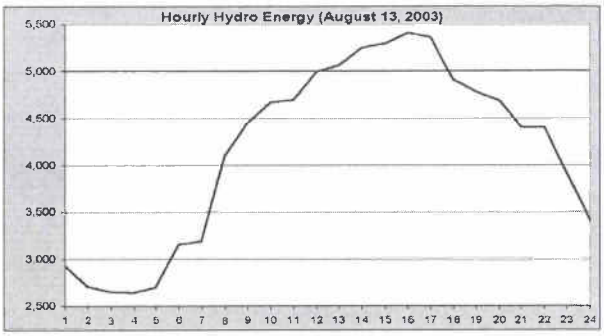


Figure 3 provides a profile of hourly waterpower production on a summer day in 2003. The shape of the graph in comparison to **Figure 2** demonstrates the correlation between the overall provincial electricity system needs and waterpower production. As expressed in a recent system reliability outlook by the Independent Electricity System Operator (IESO), the organization responsible for the integrity and reliability of the province's electricity system:

"Ontario's future generation supply mix will place an increasing reliability value on the flexibility of generating assets to provide load following capability, operating reserve and automatic generation control. Preserving operating flexibility of hydro-electric generating facilities, whether old or new, should be a critical consideration."

1.3 Purpose of the Class EA

The Ministry of the Environment (MOE) describes Environmental Assessment (EA) as a planning process that allows proponents to assess the potential for effects to the environment using best information available in order to make an informed decision about how or whether a project should proceed. In Ontario, this process is defined and finds its authority in the *Environmental Assessment Act* (*EA Act*).

Not all undertakings subject to the *EA Act* need to go through the individual EA process. There are some groups or "classes" of projects which are:

- carried out routinely; and
- have predictable and mitigable effects to the environment and therefore, do not warrant an individual EA. These are known as Class Environmental Assessment (Class EA) projects.

This Class EA sets out a planning process to be followed for waterpower projects included in the class. The *EA Act* formally recognizes the Class EA process and outlines the requirements for EA approval. The Class EA is submitted and reviewed under the individual EA review and approval process. An approved Class EA applies to

the entire class of undertakings. Thus, a proponent of a project included in a class of undertakings does not need to obtain separate approval under the *EA Act* for each specific project provided the class planning process is adhered to for the specific project.

The purpose of this Class EA is to fulfill the requirements of the Terms of Reference (ToR) approved in November 2005 by the Minister of the Environment under the *EA Act*; namely to specify a planning and design process whereby impacts and benefits are considered in waterpower projects before irreversible decisions are made. The Class EA is intended to provide direction on effective project assessment and engagement processes that are appropriate for projects within the class. This will ensure that proponents take into account the potential impacts and benefits of proposed waterpower projects as well as the interests of individuals, communities, agencies and organizations, as appropriate.

It is not the proponent's responsibility to achieve consensus about whether a project should proceed or attempt to resolve issues outside of their project scope. While proponents of projects should make every effort to avoid or minimize potential impacts, it may be impossible to mitigate all of them. There will be times where individuals may be affected by a project that would benefit society as a whole. There may also be instances where the proponent determines that the importance of net effects, the costs of mitigation or the significance of unresolved issues make the project unfeasible.

This Class EA applies only to waterpower projects to which the environmental screening process prescribed under Ontario Regulation 116/01 – Electricity Projects (2001), or as amended (herein referred to as the Electricity Projects Regulation) under the *EA Act* currently applies. It will apply to all proponents of waterpower projects in Ontario, regardless of their affiliation with the OWA.

The objective of this Class EA is to help ensure that projects are planned in an environmentally responsible manner. An additional objective of this Class EA is to coordinate and integrate the multiplicity of environmental approvals and public involvement processes that are relevant to planning a waterpower project. Adhering to this Class EA will facilitate meeting the core planning requirements for this array of approvals. Common to all of these processes are the themes of "environmental responsibility" and "public accountability." This Class EA has adopted these themes and is designed to facilitate coordination with other directly relevant federal and provincial requirements to help ensure effective and efficient public and agency involvement.

Using the Class EA as the planning, evaluation and consultation framework does not remove the decision-making authority of agencies with legislative responsibilities related to a waterpower project. Rather it presumes that those requirements identified at the EA stage of a proposal can be dealt with through the Class EA process. In practice, use of the Class EA process should result in a diligent proponent coordinating and satisfying the information and involvement requirements relevant to the EA stage of the project. Prior to commencing the EA process, projects on provincial Crown land will have satisfied appropriate requirements of the Ministry of Natural Resources' Waterpower Site Release and Development Review process. As such, considerable initial information may already have been assembled by the proponent and relationships with government agencies and stakeholders may already have been established. Proponents must be aware of and comply with any appropriate conditions that may result from MNR's Site Release and Development Review process.

A proponent that completes the Class EA process will also set the stage for the subsequent project-specific permits and approvals. For example, though broad mitigation measures to protect fish and fish habitat are outlined in the Class EA process, specific permit

requirements (e.g., development of a fish habitat compensation plan for *Fisheries Act* authorization) are often completed after the Class EA process when detailed engineering design information is available. The outcome of the EA process is used to inform the more detailed project permitting and construction phases of a project. EA is neither the beginning nor the end of the project cycle.

A listing of potentially relevant key legislation is provided in **Table 1**. **Section 5** provides an overview of how a proponent can facilitate the coordination and integration of the information, involvement, evaluation and documentation requirements through the Class EA process. Note that other legislation may also apply to projects and that legislated or approval requirements may include conditions for project development in addition to those in **Table 1** or in this Class EA. **Appendices B and C** reference resource material in this regard.

Table 1 Key Legislative Considerations for a Waterpower Project

AGENCY	LEGISLATION	REQUIREMENT
Ministry of the Environment	*Ontario Environmental Assessment Act*	Requirements pursuant to the Electricity Projects Regulation.
Ministry of Natural Resources	*Lakes and Rivers Improvement Act,* Section 14 (new works)	Approval of the location, plans and specifications for new works.
	16 (Modification of existing works)	Approval of the plans, specifications for modifications to existing works.
	23.1 (Existing Waterpower Facilities)	Incorporation of a facility into a Water Management Plan.
	Endangered Species Act	Provides for the protection of endangered and threatened species and their habitat and for mechanisms to support their recovery.
	Public Lands Act, 42	The Minister has the authority to fix the terms and conditions upon which waterpower resources and any public lands necessary for their development are disposed.
	Provincial Parks and Conservation Reserves Act, 19	Generation of electricity is not permitted on lands that are part of a Provincial Parks or Conservation Reserve, subject to the exceptions noted below:
	Provincial Parks and Conservation Reserves Act, 19(1)	Facilities that existed prior to the *Act* may continue to operate and be maintained and, with the approval of the Minister, may be improved, rebuilt or altered.
	Provincial Parks and Conservation Reserves Act, 19(2)	Facilities developed for use within communities that are not connected to the IESO-controlled grid.
	Provincial Parks and Conservation Reserves Act, 19(3)	Facilities identified in a Ministry land use plan before the site where the facility is to be located was regulated.

Table 1 Key Legislative Considerations for a Waterpower Project

AGENCY	LEGISLATION	REQUIREMENT
Ministry of Natural Resources	*Provincial Parks and Conservation Reserves Act, 19(4)*	Facilities for use for provincial park or conservation reserve purposes.
	Provincial Parks and Conservation Reserves Act, 54(1)(b)	The Lieutenant Governor in Council may make regulations setting apart an area as a provincial park or conservation reserve or as part of one, decreasing or increasing the area of a provincial park or conservation reserve and establishing the boundary of a provincial park or conservation reserve
Ministry of Culture	*Ontario Heritage Act*	Provides for conservation, protection and preservation of the heritage of Ontario. Its primary purpose is to give municipalities and the provincial government powers to protect real property of cultural heritage value or interest, including heritage buildings and structures; areas, districts or cultural heritage landscapes; and archaeological sites (land based and marine). 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 archaeological site. As a term and condition of the license, consultant archaeologists are required to follow the *Standards and Guidelines for Consulting Archaeologists.*
Ministry of Municipal Affairs and Housing	*Planning Act*	Provides the basis for the "Provincial Policy Statement" that identifies matters of provincial interest, including cultural heritage, renewable energy, natural heritage etc.
Local Conservation Authority	*Conservation Authorities Act*, Section 28 individual CA Regulations	Permission is required for activities in and adjacent to watercourses including valleylands, wetlands, shorelines of inland lakes and the Great Lakes-St. Lawrence River System, and hazardous lands.
Fisheries and Oceans Canada	*Fisheries Act 20*	Fish-ways to be made as Minister directs.
	Fisheries Act, 22(2)	The design of the dam and/or other barriers must allow for the safe passage of both ascending and descending migratory fish.
	Fisheries Act, 22(3)	Authorization of minimum flows that are sufficient for the safety of fish and for the flooding of spawning grounds sufficient for the safety of the deposited ova.
	Fisheries Act, 30	Fish guards where Minister deems necessary.
	Fisheries Act, 32	Authorization is required for the destruction of fish that is not caused by fishing.
	Fisheries Act, 35(2)	Authorization required for the alteration, disruption, or destruction of fish habitat.

Table 1 Key Legislative Considerations for a Waterpower Project

AGENCY	LEGISLATION	REQUIREMENT
Transport Canada	*Navigable Waters Protection Act, 5(1) a*	Approval of the site and plans, including the flows and levels that affect navigation.
Environment Canada Fisheries and Oceans Parks Canada	*Species at Risk Act*	Provides for the recovery and protection of listed wildlife species that are extirpated, endangered, threatened or of concern and secures the necessary actions for their recovery.
Environment Canada and Fisheries and Oceans	*Fisheries Act, 36*	Prohibits deposit of deleterious substances unless authorized by federal regulation.
Environment Canada	*Migratory Birds Convention Act*	Prohibits the disturbance, destruction or taking of a nest, egg, nest shelter, eider duck shelter or duck box of a migratory bird under Section 6 of the Migratory Bird Regulations, under the authority of the *Act*. Under Section 5.1, no person shall deposit or permit to be deposited oil, oil wastes or any other substance harmful to migratory birds in any waters or any area frequented by migratory birds.
Federal authorities and the Canadian Environmental Assessment Agency (CEA Agency)	*Canadian Environmental Assessment Act*	Federal authorities are required to ensure that an environmental screening or comprehensive study is undertaken if the *CEA Act* is triggered.
Parks Canada	*Historic Canals Regulations and National Parks Act*	Any project or works in or directly adjacent to waters on these federal lands are to be referred to Parks Canada for their review and approval.
Indian and Northern Affairs Canada	*Dominion Waterpower Act*	Provides the legislative and regulatory framework for waterpower development on federal waterways.

1.4 Reasons for Using a Class EA

MOE recognizes a Class EA as an efficient and effective approach that is applied to a group or "class" of activities that have common attributes, qualities, or characteristics and have predictable effects to the environment. Projects that form part of the class of undertakings (Class EA projects) can proceed without seeking further approval if they have been planned in accordance with the planning process outlined in the approved Class EA.

When a Class EA is approved by the Minister, the approval is for both the class of undertakings defined in the Class EA and the planning process set out in the document. A Class EA is appropriate for the subset of waterpower projects because:

- The waterpower projects included in this Class EA are identical to those already included in the existing approved EA regulatory framework for electricity projects (i.e., Electricity Projects Regulation). This Class EA builds on that framework and deals specifically with waterpower;
- Ontario Power Generation (OPG) has successfully applied an approved Class EA for Modifications to Hydroelectric Facilities for more than twenty (20) years. This Class EA specifically includes modification projects;
- The Class EA has, as a first-level screen, sorted project streams based on the overall environmental context within which they will occur and the known range of waterpower potential in Ontario;
- The Class EA includes environmental evaluation and reporting processes for all projects subject to the class. The OWA has taken this proactive approach considerate of the practical experience in pursuing waterpower projects in Ontario; and
- The Class EA incorporates a best practices approach in terms of public involvement, Aboriginal community engagement, and project design, allowing for flexibility in adapting to and adopting new and better information.

The Class EA provides for a single document to be used for assessing all projects within the defined class according to their type and scale of activity, potential for effect and/or level and extent of public, Aboriginal and agency interest. Prior to this Class EA, waterpower projects were planned according to three separate self-assessment processes: one, the environmental screening process prescribed by the Electricity Projects Regulation; two, OPG's Class EA for Modifications to Hydroelectric Facilities; and three, the Class EA for Provincial Parks and Conservation Reserves. This document is intended to provide a common process for proponents, the public, government agencies, Aboriginal communities and other interests in the planning, evaluation and documentation for each category of project and each project within the categories.

This Class EA is designed to ensure that proponents of waterpower projects consistently take into account the potential effects that their proposals will have on the environment using an approved process that is specific to waterpower projects. It sets out a planning process to be followed for specific project types identified under the Class EA. The process that is followed through this Class EA enables the proponent to identify potential effects to the environment and public, agency and Aboriginal concerns, along with the preferred means of addressing them.

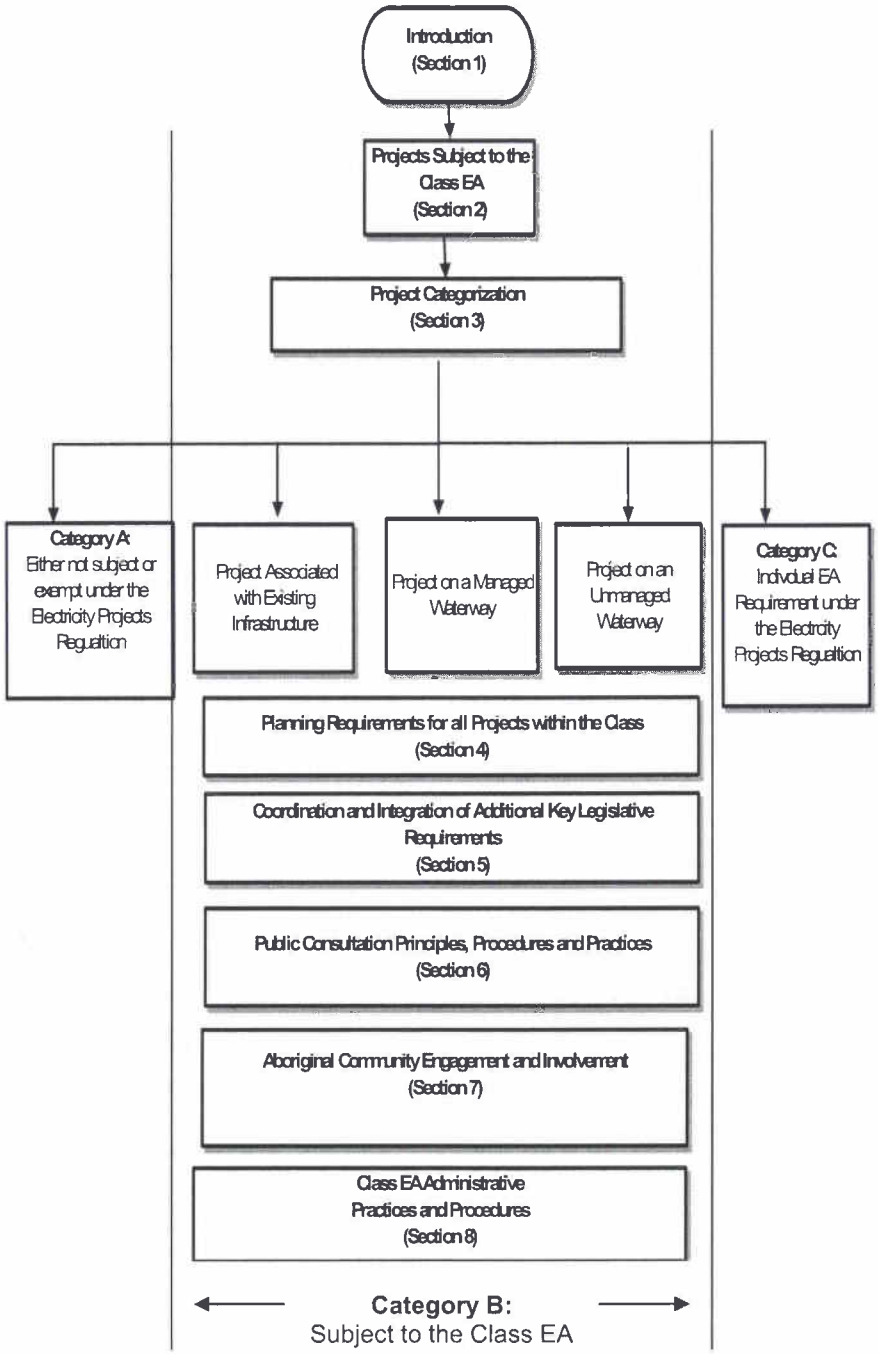
1.5 Relationship of the Class EA to the Electricity Projects Regulation

Section 8 of the Electricity Projects Regulation contemplates that a Class EA shall be used instead of the environmental screening process where a Class EA has been approved and the project falls under that Class EA. In a variety of ways the approach within the Electricity Projects Regulation is similar to that of a Class EA. It defines a proponent-driven self-assessment framework for a subset or class of electricity projects. The regulation defines three (3) categories of undertakings:

- Category A projects are either not subject to provincial EA requirements or are exempt under the Electricity Projects Regulation (though may be subject to other regulatory provisions);
- Category B projects require a self-screening and may require the preparation of an environmental study report; and
- Category C projects require an individual EA.

A deterministic approach to which projects fall within each category was taken in the regulation, largely premised on the resultant nameplate capacity of a new electricity project, with some provisions related to the magnitude of change to an existing facility. Though the thresholds for categorization differ across technologies, an underlying premise of the present regulatory regime for electricity projects is predetermined differentiation based on size. By definition, Category A projects are expected to have minimal effects to the environment. Category B projects have potential effects to the environment that can likely be mitigated. Category C projects are major projects with known significant effects to the environment. For more information, users of this Class EA should refer the Electricity Projects Regulation. This Class EA includes the waterpower projects included in Category B of the Electricity Projects Regulation (see **Figure 4**). For clarity, this Class EA does not make any project subject to the *EA Act* that would not already be subject to the *EA Act*. It builds upon the Electricity Projects Regulation and furthers the concept of pre-determination based on the broader environmental context within which a new waterpower project takes place. This Class EA requires that all new waterpower projects not only consider comprehensive environmental, social, cultural and economic criteria, but that a formal Environmental Report be prepared for every project. This approach is based on the industry's experience in applying the existing regulatory framework and its interest in ensuring that all new projects are developed in an environmentally responsible, publicly accountable manner. **Figure 4** provides an overview of the structure of the Class EA for waterpower projects.

Figure 4 Structure of the Class EA for Waterpower Projects



2.0 PROJECTS SUBJECT TO THE CLASS EA

2.1 The Class of Undertakings

Projects that are planned in accordance with this Class EA do not need to obtain separate approval under the *EA Act*.

The Electricity Projects Regulation describes a waterpower project as "a generation facility that uses water power as its primary power source." Only the waterpower projects subject to the environmental screening process prescribed in the Electricity Projects Regulation (i.e., Category B projects) are subject to this Class EA. This includes new waterpower projects that have a nameplate capacity less than 200 MW and modifications to existing waterpower projects that would result in an increase in nameplate capacity of 25% or more. This may include upgrades, expansions or redevelopments of existing facilities, retrofits of existing infrastructure or new developments. Project elements covered under this Class EA include the planning, designing, establishing, constructing, operating, changing, expanding or retiring of waterpower projects that are the subject of the Class EA. **Section 3** provides a description of the categories of projects.

Projects specifically exempt under the Electricity Projects Regulation through its transition or grand-parenting provisions continue to be exempt. Projects requiring an individual EA under the Electricity Projects Regulation are not included in the class of projects under this Class EA.

Transmission lines that are 115 kV or greater and are used to transmit electricity at the facility or from the facility to the Independent Electricity System Operator-controlled grid, and are associated with the project, are to be considered part of the project and evaluated using the Class EA process. Transformer or distribution stations that are 115 kV or greater and associated with a waterpower project under this Class EA are also to be reviewed through this process. At the discretion of the proponent, the evaluation may be applied separately to the generation and transmission components. Should the categorization of transmission projects in the Electricity Projects Regulation change, the applicant for this Class EA will consider amending the Class EA, and, as appropriate, use the Minor Amendments procedure outlined in **Section 8**.

For additional clarity regarding the items above, proponents are encouraged to refer to the Electricity Projects Regulation (or as amended).

2.2 Waterpower Projects

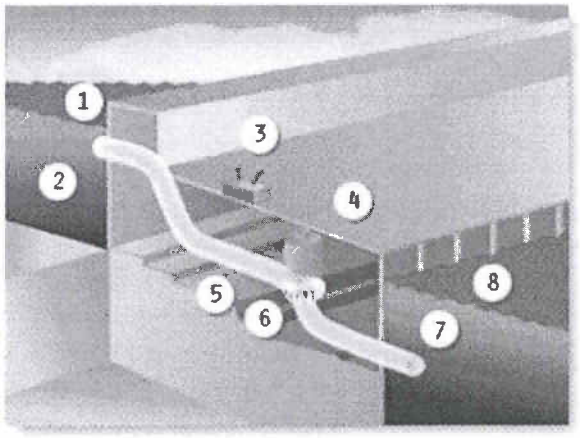
A waterpower project is typically comprised of a combination of one or more of the components listed below. The list is not intended to be all-inclusive.

- Main dam, control dam and side dam
- Powerhouse
- Auxiliary storage
- Auxiliary block dam
- Penstock
- Diversion dam and diversion channel
- Tunnel
- Turbine
- Canal
- Weir
- Aqueducts and pipeline
- Forebay
- Reservoir/Headpond
- Spillway/sluiceway
- Incorporation of electrical transmission lines and transformer station(s)
- Access roads and associated auxiliary structures

Most waterpower facilities use the natural drop or "head" of the river and/or build a dam to raise the water level and provide the drop needed to create a driving force. Water at the higher level (the forebay) goes through the intake into a canal or a pipe called a penstock, which carries it down to the turbine.

The turbine is connected to a generator. When the turbine is set in motion, it causes the generator to rotate and electricity is produced. The falling water then exits the generating station through the draft tube into the tailrace. **Figure 5** depicts this process and some of the above-mentioned components.

Figure 5 Waterpower Facility Components



1. Forebay 2. Intake 3. Transformer 4. Generator 5. Penstock 6. Turbine 7. Draft tube 8. Tailrace

Source: Ontario Power Generation

Other waterpower technologies include "pumped storage," a method of storing and producing electricity to supply high peak demands by moving water between reservoirs at different elevations and "water current" systems that convert hydro kinetic energy from flowing water into electricity. Consistent with the Electricity Projects Regulation, these technologies are considered water-powered and, hence, are included in this Class EA.

2.3 Similarities Among Project Types

Waterpower development and re-development has taken place in Ontario for well over a century and the basis for the production of electric energy from falling water has not fundamentally changed over time. The province has gone through a number of waterpower or hydro eras, most recently from the mid-1980s to the early 1990s. Notwithstanding that waterpower is considered a relatively mature means of producing electricity, advancements in technology, efficiency, water resource management and environmental mitigation continue to be made.

The approach taken in this Class EA recognizes that potential effects on the environment and public concerns associated with a waterpower project are a function both of the nature of the project as well as the conditions and characteristics of the natural and socio-economic environment within which a project is proposed. This broader context provides the most useful means of identifying the generic similarities among projects.

2.4 Differences Among Project Types

Project types covered by this Class EA range from those that modify existing infrastructure (e.g., retrofits and expansions) to new facilities where none existed before. In addition, projects may occur in different environmental settings characterized by managed or unmanaged river systems.

Projects may also differ based on site-specific considerations related to:

- The general natural environment
- Aquatic and riparian ecosystems
- Cultural heritage resources
- Social and economic features
- Community and public interest
- Land and resource use

This Class EA recognizes these differences and sets out assessment and consultation requirements to ensure that the unique characteristics of each project can be appropriately addressed. This is further described in **Section 4.0**.

2.5 The Environment Affected and the Expected Range of Effects

A variety of aspects of the environment may be affected by the projects covered under this Class EA. The definition of "environment" used in this Class EA is the same as that in the *EA Act*. "Environment" in the *EA Act* is broadly defined to include air, land and water, as well as natural, cultural, social and economic components. Waterpower inventories have identified new potential across the province and in a wide range of environments. The categorization is premised on the environmental context within which projects will occur, recognizes this range of environments, and provides for project-specific assessment. The matrix provided as **Table 3** has been designed to help identify both positive and negative potential effects of a project, ensuring that projects are viewed as a whole. In all cases, the assessment of impacts and benefits and the projected significance of the net effect (i.e., after mitigation) will be based on site and system-specific investigations.

All waterpower projects subject to this Class EA will require the preparation and review of an Environmental Report (ER). **Section 4** provides a framework for the proponent to identify and consider the environment as defined in the ***EA Act***. The subsections below are intended to provide an additional emphasis on effects expected to be common and/or important to most projects. It is not the intent that this list be all-inclusive. While the other benefits of new waterpower have not been specifically itemized (e.g., flood mitigation, water supply), the application of the matrix is expected to identify these contributions for each project.

2.5.1 Fish and Fish Habitat

The vast majority of new waterpower projects are anticipated to involve potential effects related to fish and fish habitat (as defined in the federal *Fisheries Act*). These considerations can transcend jurisdictional boundaries, either through legislative mandates and/or implementation protocols. In Ontario, the Ministry of Natural Resources manages fisheries while Fisheries and Oceans Canada manages fish habitat. **Section 5** provides an overview of the potentially relevant requirements of the *Fisheries Act*. **Appendix C** includes information on resources available from the OWA, including information on obtaining an authorization under the *Act*.

2.5.2 Water Level / Flow Management and Aquatic Ecology

Of particular relevance for new projects on unmanaged river systems and of possible consideration for projects on managed river systems is the potential resultant change in the water management regime. The increasing interest in "flow" as one determinant of aquatic ecosystem integrity and the potential considerations for optimal water management regimes for electricity production warrants specific attention. Proponents should have an early concept of water availability and have the flexibility to pursue site-specific strategies. **Appendix C** lists reference material available through the OWA, including that related to water levels and flows.

2.5.3 Interests of Riparian Owners

The legal authority for a proponent to pursue a waterpower project in Ontario involves a riparian right in common law, related to the ownership of the bed and/or banks of the waterway. Riparian rights cannot be exercised in such a manner as to impair the similar rights of others. These interests may be the result of freehold title to the land adjacent to water upstream or downstream of a development or through authority granted by the province (or the federal government) with respect to the use of adjacent Crown lands. By its very nature, waterpower development and water resource

management must consider the interests of other riparian owners. In practice, this can result in competing or complementary interests upstream and downstream of a proposed facility, and trade-offs that seek to balance the impacts and benefits to the extent possible.

2.5.4 Interests of Water-Resource Users

Whether interests are related to navigation, resource-based tourism, water intakes or other forms of water resource use, it is reasonable to expect that water-resource users will be engaged in many new waterpower proposals. While many will bring individual interests and values, they can also be informed and/or represented by collectives or organizations. These potentially interested parties are an important consideration for early involvement in the proposed waterpower project.

2.5.5 Interests of Water-Related Natural Resource Uses

Interests related to the use and enjoyment of natural resources that are water or riparian dependant such as recreational fishing, fur harvesting, baitfish harvesting and wild rice harvesting are also likely to be involved in new projects. An early identification of the likelihood of the project to affect such activities will help to tailor the public consultation plan to the interests identified.

2.5.6 Provincial Parks and Conservation Reserves

Waterpower projects developed inside or near a provincial park or conservation reserve may have affects on the unique values for which the park or conservation reserve was established. An early identification of the likelihood of the project to affect such values will help to establish any necessary mitigation measures with regard to the values identified and help to identify consultation requirements. To the extent possible, consideration must be given to ensure the maintenance of ecological integrity and the protection of cultural and recreational values.

2.6 The Applicant and Project Proponents

This section differentiates the applicant for the Class EA (OWA) from the proponents of individual projects that are the subject of the Class EA. Direction is also provided on instances where there is more than one proponent for a project.

2.6.1 Class EA Applicant

The OWA, representing its members and the waterpower industry in Ontario, submitted a Terms of Reference for the establishment of this Class EA for approval under the EA Act and is the applicant for this Class EA. The OWA is not a project-specific proponent.

The OWA will have lead responsibility for communicating, supporting, monitoring, evaluating, proposing amendments to this Class EA and reporting to MOE on projects undertaken. As detailed in **Section 8.1**, the OWA is responsible for monitoring the implementation of this Class EA to ensure that it is satisfying its purpose, and that it remains relevant and current. Notice provisions will help ensure the OWA is apprised of all projects, regardless of the proponent's affiliation with the OWA.

2.6.2 Project Proponents

This Class EA applies to all proponents of projects within the Class, regardless of their affiliation with the OWA. For a project planned in accordance with the Class EA the proponent means:

- a public or private sector developer, and/or Aboriginal community who has proposed the project, or who is ultimately responsible for the works constructed.

Proponents may identify authorized agents to carry out the Class EA process for projects on their behalf. Notwithstanding the coordination role of the OWA, proponents will retain any associated liabilities for non-compliance.

2.6.3 Co-proponents

For undertakings subject to this Class EA, where public agencies, Aboriginal communities and/or private sector developer(s) jointly undertake a project for their mutual benefits, as co-proponents, all terms and conditions of this Class EA shall apply equally to each co-proponent.

For undertakings subject to this Class EA, where public agencies, Aboriginal communities and/or private sector developer(s) undertake a project for their mutual benefits but select one of the parties to be the lead proponent to carry out the project planning and implementation, all proponents will be subject to the terms and conditions of this Class EA.

When carrying out an undertaking subject to this Class EA, public agencies, Aboriginal communities and private sector proponents are urged to determine and clearly identify who the proponents will be early in the process and include the information in the Notice of Commencement. For further information on the potential for co-proponency related to the coordination of projects under other Class EAs, refer to **Section 5.1**.

3.0 PROJECT CATEGORIZATION

This section explains the categorization of projects subject to this Class EA. The project categories are premised on Category B projects contained in the existing Electricity Projects Regulation; however this Class EA further differentiates waterpower projects based on the environmental context within which they occur. The categories within this Class EA:

- Build on the current regulatory framework for EA of electricity projects, which includes a proponent-led and flexible approach to address project-specific issues;
- Predetermine process, based on key differences in the environment within which projects are proposed;
- Ensure a consistent approach to evaluation, impact management and documentation;
- Provide for scaled and flexible public, agency and Aboriginal involvement and evaluation/documentation; and
- Allow for the relevant range of potential impacts and benefits to be assessed for each project.

3.1 Categorization

Within this Class EA, waterpower projects have been streamed into categories as a means to match development proposals with the general scope and scale of the environmental context within which they occur. Based on very recent inventories of Ontario's remaining waterpower potential, the array of projects that are expected to come forward in the foreseeable future include:

- Projects associated with existing infrastructure;
- New projects on managed river systems; and
- New projects on unmanaged river systems.

As discussed in **Section 2**, waterpower projects occurring in similar environmental contexts have been assigned to categories so that that the scale and scope of assessment and review for a project is matched to its potential for and nature of effects to the environment and public and/or agency concern.

Should the categorization of waterpower projects in the Electricity Projects Regulation change, the applicant for this Class EA will consider amending the Class EA, and, as appropriate, use the Minor Amendments procedure outlined in **Section 8**.

These streams are intended to facilitate focused assessment and effective and efficient engagement. The following sections describe the categories to which waterpower projects have been assigned under the Class EA. **Table 2** provides a summary of the distinctions in process between projects.

3.1.1 Projects Associated with Existing Infrastructure

This category includes waterpower projects that result in additional nameplate capacity and that are expansions, modifications or redevelopments and are proposed at, near or around existing facilities or water management infrastructure. As an example, this could include the retrofit of an existing dam to incorporate a waterpower facility.

Although the Electricity Projects Regulation does not define "retrofitting" or "redevelopment", these terms, as they are commonly applied to waterpower projects, have been defined in this Class EA (see **Appendix A**) for additional clarity in the categorization of projects. Projects associated with existing infrastructure are least likely to involve new significant effects and/or create broad public, Aboriginal community and/or agency interest. In general, this category of projects will involve relatively localized direct effects to the environment and, while project size may vary, the scope of change will often be restricted to the infrastructure itself and the zone of influence resulting from modification. However, these types of facilities may have been in existence for many years and may have built cultural heritage value or interest. These projects, therefore, have the most likelihood to affect buildings or structures of cultural heritage value or interest ("built heritage"). However, the possibility of affecting built heritage is potentially relevant to all categories.

In addition to the limitations imposed by changes to existing infrastructure, it is reasonable to expect that water management regimes are already established, either as expressed through a formal water management plan or through the identification of relevant social and environmental values and interests. Projects within the category that involve significant changes in water management regimes are likely to be more complex than those that do not.

In terms of process, the projects will include a proponent-agency coordination meeting, a mandatory public notice at the beginning of the project (Notice of Commencement) and a second public notice (Notice of Completion) to parties who have requested to be informed and engaged and/or who have participated in the consultation.

Applying the framework of the Electricity Projects Regulation, these projects include:

- Expansion or change to an existing generation facility that has a resultant nameplate capacity of less than 200 MW*;
- Expansion or change to an existing generation facility by less than 25% with an initial nameplate capacity of less than 200 MW and resultant nameplate capacity of 200 MW or more;
- Expansion or change to an existing generation facility by less than 25% with an initial nameplate capacity of greater than 200 MW;
- Retrofitting of existing infrastructure with a resultant nameplate capacity of less than 200 MW.
- Note the transition and grandparenting exemptions of the Electricity Projects Regulation

3.1.2 New Projects on Managed Waterways

These are new projects on waterways that are already subject to water level and/or flow management. These projects may be expected to have potential broader effects and/or public, Aboriginal community and/or agency interest. However, given that projects in this category are restricted to those that take place on river systems already subject to water management, the evaluation and assessment will be primarily focused on the development site, the immediate zone of influence and the potential incorporation of the new operation into the existing water management regime. Some developments may involve changes to the existing regime and, hence, the involvement of a broader scope of interests and potentially a broader study area / zone of influence.

Proponents of projects in this category are required to convene a proponent-agency coordination meeting, issue a mandatory public notice at the beginning of the project (Notice of Commencement) and a second broad public notice (Notice of Completion), regardless of any concerns or interest that come forward as the result of the first notice or the level of participation through consultation.

These projects include:

- Development of a new generation facility less than 200 MW nameplate capacity on a managed waterway.

3.1.3 New Projects on Unmanaged Waterway

These projects occur on unmanaged waterways and can have the most potential to cause broad effects and/or are expected to have considerable public, Aboriginal community and/or agency interest. These projects feature new developments on river systems not previously subject to water level and flow management. They will not only involve consideration of the direct effects of the new infrastructure, but are also most likely to require an assessment of the implications of an introduced water management regime.

Given the potential for greater complexity, the process defined in the Class EA provides for additional public, Aboriginal community and/or agency involvement.

These projects include:

- New development less than 200 MW nameplate capacity on an unmanaged river waterway.

Table 2 provides a summary of the distinctions in process between projects.

Table 2 Distinctions Between Project Types

	New Projects associated with existing infrastructure	New Projects on managed waterways	New Projects on unmanaged waterways
Rationale for Categorization	Greatest potential for site specific effects and focused concern.	Potential for localized effects and concern.	Greatest potential to cause broad effects and medium to high concern.
Mandatory Notification Requirements	• Notice of Commencement • Notice of Completion (to parties who have expressed an interest or participated) • Statement of Completion	• Notice of Commencement • Notice of Completion • Statement of Completion	• Notice of Commencement • Notice of Inspection (to parties who have expressed an interest or participated) • Notice of Completion • Statement of Completion
Key Environmental Themes	Environmental considerations will often be site-specific and localized (i.e. immediately up and downstream; existing infrastructure could have built cultural heritage value in some instances).	Environmental considerations will often involve the relationship between the "zone of influence" for the new proposal and the existing water management regime. Greater potential for changes to the existing regime.	Key considerations will most often extend to the impacts and benefits of water level and flow management. Greatest potential for the establishment of a new water management regime.
Involvement	Agencies, Interested Parties, Aboriginal Communities, as appropriate.	Agencies, Interested Parties, Aboriginal Communities, as appropriate.	Agencies, Interested Parties, Aboriginal Communities, as appropriate.
Documentation	Environmental Report	Environmental Report	Environmental Report
General Level of Detail Expected	Site-specific investigations are expected to be relatively focused.	Broader local concerns/impacts and potential for expanded scope.	Broadest consideration and potential for greatest level of complexity.
Target Timelines for EA Completion*	12 months	12-18 months	12-24 months

* Target timelines are specific to the Class EA process, are approximate and will vary (more or less) depending on factors such as technical study timeframes and consultation requirements, and do not include subsequent permitting and approvals.

3.2 Waterpower Projects beyond the Scope of the Class EA

This Class EA does not cover all waterpower projects. Some waterpower projects have no *EA Act* requirements and some projects require an individual EA. This section explains in further detail how these projects relate to the Class EA; however, they are not in fact subject to this Class EA.

3.2.1 Category A Projects

Under the Electricity Projects Regulation, Category A projects are those that are either exempt from provincial EA requirements or that are not subject to the *EA Act*. By definition, they are expected to have minimal or no new effects to the environment. There are no waterpower projects designated under the definition of Category A under the Electricity Projects Regulation. The minimum threshold for a new waterpower facility is a Category B project.

However, under the Electricity Projects Regulation, some waterpower projects are designated under the *EA Act* but then made exempt for purposes of grandparenting and transitioning. This Class EA does not change the exemptions provided for these projects, which are as follows:

- changing or expanding a water power generation facility for which no approval under Section 5 of the *EA Act* was required to construct; and which result in a less than 25% increase in nameplate capacity at such existing facility; and
- constructing, operating, changing, expanding or retiring of a water power generation facility for which no approval under Section 5 of the *EA Act* was required to construct; and which either began construction before April 23, 2001 or obtained any approvals required to begin construction and any approvals required to operate under the *Environmental Protection Act* or the *Ontario Water Resources Act* before April 23, 2001; and was substantially completed by April 23, 2006.

Although these projects are exempt from the *EA Act*, if there is a related requirement for a new disposition of rights to Crown resources, this aspect of the project will be subject to the MNR Class EA – RSFD or the MNR Class EA – PPCR, as appropriate. In addition, these projects may still be subject to the requirements of the *CEA Act*. Section 5 provides detail on these requirements.

3.2.2 Category C Projects: Individual EA

As described in the Electricity Projects Regulation, Category C projects are determined to be major projects with the potential for significant net effects. These projects require an individual EA and are beyond the scope of the Class EA. The required process for a Category C project would be determined through the preparation and approval of Terms of Reference under Part II of the *EA Act*. Category C projects include:

- Development of a new generation facility with a nameplate capacity of 200 MW or more; and
- Significant modification of an existing generation facility with a nameplate capacity of 200 MW or more.

3.3 Incorporating Waterpower Projects into the Grid

As described in **Section 2.1**, new transmission lines and transformer or distribution stations operating at 115 kilovolts or greater that are associated with the project are to be considered part of the project and evaluated using the Class EA process.

If the transmission lines are proposed to occupy Crown land, MNR will require documentation confirming the completion of the requirements under the *EA Act* (i.e., filing a Statement of Completion), prior to issuing a disposition. Category A projects such as transmission and distribution facilities that are not subject to the Electricity Projects Regulation but require a disposition of rights to Crown Resources will require evaluation pursuant to MNR's RSFD Class EA or the MNR Class EA – PPCR, as appropriate. Opportunities exist to coordinate the generation portion of the project under this Class EA and the transmission portion of the project under the MNR RSFD Class EA or the MNR Class EA – PPCR, as appropriate. Proponents are encouraged to establish an approach to such situations at or before the initial co-ordination meeting with the MNR, the appropriate transmission company and other interested agencies.

4.0 CLASS EA PLANNING PROCESS

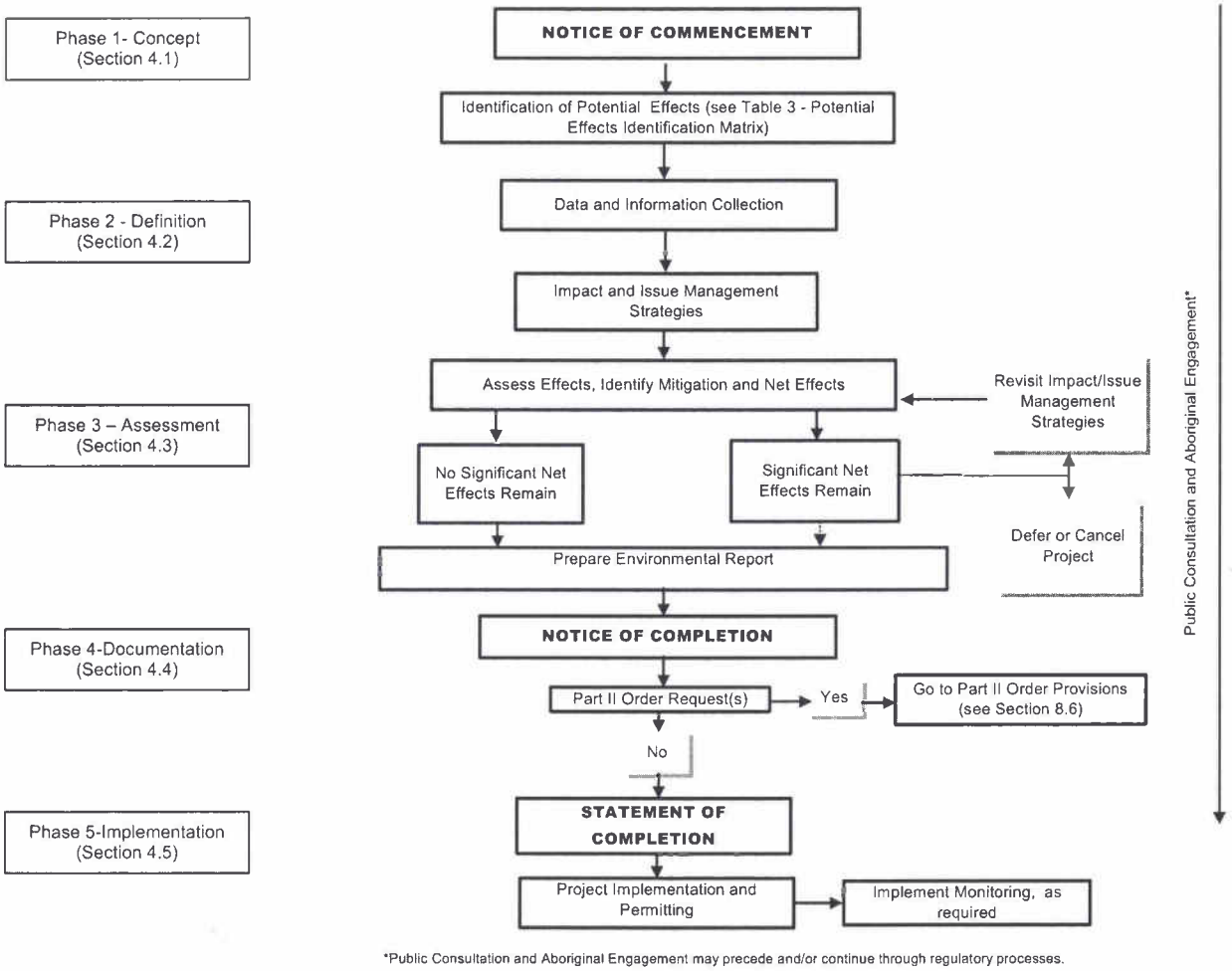
This section describes the steps of the Class EA planning process for all projects. It should be noted that some components of the process may be iterative. For example, the proponent should initiate a coordination meeting early in the process however it may be beneficial to have another meeting after the completion of the matrix or prior to the publication of the Environmental Report (ER). Likewise, a project description should be prepared in the initial concept phase of the project, but a revised and more detailed project description may be prepared in the definition and assessment phases.
In brief, this Class EA outlines the planning process in five phases through which a project proposal moves from concept to implementation phases. These phases are described as follows for each project proposal:

- *Phase 1* – Project Concept: the initial concept phase of a project proposal and the start of public engagement and consultation in the EA process (**Section 4.1**);
- *Phase 2* – Project Definition: the determination of project specific considerations (**Section 4.2**);
- *Phase 3* – Project Assessment: development of mitigation strategies to address identified key considerations (**Section 4.3**);
- *Phase 4* – Documentation: summarizing and reporting on information analyzed and collected, outcomes of consultation and engagement and reaching conclusion on the EA (**Section 4.4**); and
- *Phase 5* – Project Implementation: subsequent permits, approvals and monitoring (**Section 4.5**).

This planning framework is presented in **Figure 6** and key components are expanded upon throughout this section. Elements in **BOLD** denote mandatory points of public notice. Subsequent sections build on this framework, particularly with respect to the incorporation of additional legislative and regulatory planning requirements for waterpower projects that are the subject of the Class EA (**Section 5**).

The process outlined is generic and the timelines proposed within categories are targets. Project specific information and the nature of the concerns of interested parties will help determine the degree to which the process can be expanded or contracted by the proponent.

Figure 6 Class EA for Waterpower Projects Process



*Public Consultation and Aboriginal Engagement may precede and/or continue through regulatory processes.

4.1 Phase 1 – Project Concept

This phase of the EA process is intended to establish the initial basis for project evaluation and public engagement. It is the foundation upon which all subsequent phases are premised and, therefore, warrants particular emphasis by the proponent. In many instances, this phase will follow on the effort and investments already made in securing access to the proposed location or, in the case of projects at existing infrastructure, will be undertaken after initial feasibility has been established. Key aspects of this phase include:

- Describing the Project and the characteristics of the environment within which the project is proposed;
- Establishing a project coordination approach with key provincial and federal agencies; and
- Developing public consultation and Aboriginal engagement plans, as appropriate.

4.1.1 Project Description and Environmental Context

A detailed project description will help to ensure that all aspects of the project are accounted for in the definition and assessment stages. The project description should include, as is practical at the predevelopment stage, sufficient detail to allow for the public, Aboriginal communities and agencies to provide meaningful comment when the Notice of Commencement is issued.

Key elements include:

- purpose of the project
- rationale, location, duration of the project
- watercourse identification
- anticipated zone of influence
- potential effects to the environment
- early avoidance/prevention/mitigation concepts
- proposed project phasing

A separate project description may not be required by provincial agencies where it has already been prepared as part of a Waterpower Site Strategy (e.g., MNR Waterpower Site Release and Development Review Policy). This does not, however, preclude the requirements for a project description to be submitted to the Canadian Environmental Assessment Agency (CEA Agency), for projects for which the *CEA Act* may apply. Expectations should be confirmed at the initial proponent-agency coordination meeting.

Proponents should delineate the study area for the project and identify the potential impact zones of relevance to environmental, social, cultural and economic features. The description of the project components will facilitate the identification of those environmental, cultural and socio-economic components that, if present, could be affected either directly or indirectly. The proponent must give consideration to the implications of a waterpower project to any existing water management regime. Proponents should assess projects in their entirety. It is generally inefficient to break up or "piecemeal" a larger project into separate components or phases with each part addressed as a separate project, though phasing of project implementation may be appropriate.

4.1.2 Project Coordination

A key objective of the Class EA is to help coordinate and integrate requirements of regulatory agencies and the *CEA Act* by using the Class EA as the primary vehicle for identifying environmental concerns appropriately addressed through the Class EA planning process. Of relevance to most waterpower projects are likely to be approvals related to fish and fish habitat (*Fisheries Act*), navigation (*Navigable Waters Protection Act*), infrastructure (*Lakes and Rivers Improvement Act*) and land disposition (*Public Lands Act /Provincial Parks and Conservation Reserves Act*). Of specific relevance to waterpower projects in protected areas is fulfillment of management planning requirements (for example, amendments to management direction). The proponent-led coordination meeting with key agencies (e.g., MNR, MOE, DFO, TC, CEA Agency, CAs, local municipality[ies], etc.) is an important tool to achieve this objective.

Once the proponent has the intent to commence the Class EA process, the proponent should initiate a meeting with relevant agencies to discuss, among other things:

- overview of project concept;
- agency mandates and how the proposed project relates to the statutes and policies administered by each agency;
- roles and responsibilities of the proponent, Federal Environmental Assessment Coordinator (FEAC), Responsible Authorities (RAs), expert Federal Authorities (expert FAs) and provincial ministries;
- known project-specific environmental, social and economic values;
- the approach to data and information collection;
- the approach to public consultation;
- the approach to involving Aboriginal interests and relative roles and responsibilities;
- expectations for future communication (e.g., when, who) and expected timelines and tasks associated with the stages of the process; and
- other potential permitting and approval requirements.

In advance of the meeting, the proponent should provide the agencies invited to the coordination meeting with the project description and environmental context prepared earlier in the process, as described in **Section 4.1.1** above. In order to be effective the coordination meeting requires the timely commitment of staff and information from key regulatory agencies with an interest in the project. For the vast majority of new waterpower projects, the window of opportunity with respect to the timing of environmental studies and surveys is seasonally dependent. In practice, this can mean that a short period of time lost at the commencement of the process can translate into an extended delay for the project. Early investment by all parties will yield efficiencies throughout the process. The inability of agencies to participate, however, will not prevent the continuation of a project through the Class EA process.

4.1.3 Developing Public Consultation and Aboriginal Engagement Plans

Early and meaningful engagement of representative interests and publics that may be affected by the project is prudent business practice and a critical element of achieving the intent of the Class EA. The purpose of public consultation and Aboriginal engagement is to provide those who may have an interest in the project, or those who may wish to participate with the opportunity to contribute to and inform decisions relating to a project. It provides the proponent with the opportunity to gain information and knowledge related to social, cultural, economic and environmental considerations of relevance to the project. Proponents are expected to design and implement their consultation plans considerate of the context (e.g., geography, timing, needs of interested parties) most relevant to the proposal. In practice, this can mean adopting project-specific approaches to notification and involvement or both. As with the project description, plans at this stage will be anticipatory, and may be refined as the planning process unfolds. Specific information on consultation planning and implementation is included in Section 6. With respect to the engagement of Aboriginal interests, some project proposals may have been developed with the direct involvement and participation of communities prior to commencing EA. In these instances, the Class EA component of Aboriginal engagement will be informed by the relationships already established. Specific advice is included in **Section 7**.

4.2 Phase 2 – Project Definition

While the Class EA process is not linear, it does provide a framework that moves a proposal from the general to the specific. The evaluation of potential impacts, benefits and issues informs not only the design of the proposal, but can also be used to tailor the process. In this phase proponents are expected to:

- identify potential effects on the environment;
- implement public consultation and Aboriginal engagement; and
- address data and information collection/acquisition priorities.

4.2.1 Notice of Commencement

In order to help ensure that potentially interested parties are aware of the project, the proponent must issue a Notice of Commencement of a Class EA for a Waterpower Project. This public notice is a mandatory point of contact and must be directly provided to:

- adjacent and potentially affected riparian landowners/tenants;
- potentially affected Aboriginal communities;
- the MOE Regional EA Coordinator at the appropriate Regional Office of the MOE;
- the Ontario Regional Office of the Canadian Environmental Assessment Agency;
- the local MNR office and/or park zone office (for projects within a provincial park or conservation reserve);
- other potentially interested government agencies (e.g., Municipal Affairs and Housing, Culture, Parks Canada etc.) as appropriate;
- potentially interested municipalities, including those hosting project-related infrastructure;
- other potentially directly affected water management infrastructure owners/operators;
- other directly interested or affected parties (e.g., local interest groups, businesses, resources licensees, members of the public that may be directly affected by some aspect of the project); and
- the President of the OWA.

For all projects under this Class EA, a Notice of Commencement must also be published in a local newspaper having general circulation within the area of the project. Where local newspapers do not exist, the proponent should use an equivalent means of achieving the same objective of adequate notification of local interests. Additional notification methods may also be employed at the proponent's discretion. The OWA will post all Notices of Commencement on its website.

A Notice of Commencement must include:

- The project title;
- The name of the proponent;
- A brief description of the project and tentative schedule;
- A map showing project location and anticipated zone of influence;
- A statement that the project is subject to a defined process under the Class EA for Waterpower Projects;
- An invitation to participate in the process;
- A contact name, address, fax and telephone number and/or e-mail address to whom questions or requests for additional information should be directed or comments can be sent;
- For projects associated with existing infrastructure, an explicit statement that subsequent direct notices will be provided to those who express an interest in the project; and
- An indication of additional opportunities to be informed and/or involved in the project.

A template for a Notice of Commencement is included in **Appendix D**.

4.2.2 Identification of Potential Effects

This section, and the accompanying matrix provided as **Table 3**, is intended to provide guidance to proponents in assessing the relevance of potential impacts and benefits under individual criteria and for the project as a whole. The evaluation completed during this phase of the Class EA will assist proponents in the identification of considerations of most relevance to the project and the determination of relative priorities for investigation and investment in the creation of the ER.

The evaluation, like the entire Class EA process, is proponent-led, and will help inform the proponent's approach to obtaining input and information specific to planning and assessing the project. However, the proponent may wish to consult with relevant federal and provincial agencies and municipal authorities, appropriately qualified persons, potentially affected and interested individuals and the public when completing the potential effects identification matrix. The results of the environmental, social, cultural and economic evaluation are to be used by the proponent to inform the subsequent consultation, data collection and assessment phases of the Class EA process.

An effect is any change to the environment, positive or negative, that could occur as a result of a project. Effects include the impact or benefit that a project could potentially have, directly or indirectly, on the environment at any stage in the project life cycle. This Class EA requires the proponent to assess the potential effects as well as any net effects after mitigation and focuses on those effects common to waterpower projects. This includes consideration of both direct and indirect effects.

The following guidance explains the intended meaning for assigning the level of potential effect to each project, for the criteria listed in **Table 3**.

- A "nil" effect would be assigned where there is no effect on that criterion.
- A "low" potential effect would be assigned where the potential impact and/or benefit is considered low or minimal.
- A "high" potential effect would be assigned where the potential impact and/or benefit is believed to be considerable.
- An "unk" would be assigned where the potential effects are unknown or there is insufficient information to assign a potential level of effect with reasonable certainty.
- "-" means a potential negative effect.
- "+" means a potential positive effect.

To document the early identification of potential effects of the project, the proponent will complete the matrix provided as **Table 3** by marking the appropriate column and noting any clarifying comments or rationale for the rating. A project may have both positive and negative effects in one criterion, and will be noted in the columns and described in the comments/rationale column. Where information is unavailable for the proposal it should be noted and, where the information is of significance to the proposal, the gap will need to be addressed. The criteria are not intended to be numerically scored or tallied, but rather to scope the potential issues and the proponent's priorities.

The proponent will record in the matrix the potential effects before applying possible mitigation measures. Following completion of the matrix described in this section, the proponent has more clarity with respect to the focus of consultation activities, data and information collection/acquisition priorities and the emphasis of impact management strategies. **Section 4.2.4**

For cultural heritage resources, regardless of potential benefits or level of effect, any project that may affect a built heritage resource, cultural heritage landscape, a known archaeological site, or an area of archaeological potential may require further technical heritage studies by qualified persons. In general, areas within 300 metres of a historic or present-day water source have the greatest potential for the presence of cultural heritage resources. Proponents should recognize this when completing **Table 3**.

Definitions of "Qualified persons" and "Technical Heritage Studies" are included in **Appendix A**. **Section 5.3.8** provides additional guidance on the consideration of cultural heritage values.

Note that the federal EA only evaluates negative effects, not positive. In this context, no matter how many or how large the positive effects of a project, a significant unresolved negative effect can preclude federal approval. In such instances, the project could be referred to mediation or a review panel.

Table 3 Potential Effects Identification Matrix

The proponent should view each criterion prefaced with the phrase: *"This project has the potential to affect...."*

Criteria	Potential Level of Effect						Comments, Rationale
	-H	-L	Nil	Unk	+L	+H	
General Natural Environment Considerations							
Air quality, including GHG Offsets							
Water quality or quantity (surface water)							
Water quality or quantity (groundwater)							
Species at risk and their habitat							
Significant earth or life science features							
Land subject to natural or human-made hazards							
Terrestrial wildlife (including numbers, diversity and movement of resident or migratory species)							
Natural vegetation and terrestrial habitat linkages							
Soils and sediment quality							
Significant natural heritage features and areas							
Other (specify)							

Table 3 Potential Effects Identification Matrix

Criteria	Potential Level of Effect						Comments, Rationale
	-H	-L	Nil	Unk	+L	+H	
Aquatic and Riparian Ecosystem Considerations							
Shoreline dependant species							
Wetland dependant species							
Fish Habitat							
Fish Migration							
Fisheries							
Erosion and Sedimentation							
Fish Injury or Mortality (impingement and entrainment)							
Water levels, flows and movement (surface or groundwater)							
Drainage, Flooding and Drought patterns							
Water Temperature							
Other (specify)							
Aboriginal Community Considerations							
First Nation reserves or other Aboriginal communities							
Spiritual, ceremonial, cultural, archaeological, or burial sites							
Traditional land or resources used for harvesting activities							
Employment							
Lands subject to land claims							
Economic Development							
Other (specify)							
Land and Resource Use Considerations							
Access to inaccessible areas (land or water)							
Navigation							
Riparian rights or privileges							
Recreational use – (land or water)							
Angling and hunting opportunities							
Trapping activities							
Baitfish harvesting activities							
Views or aesthetics							
An existing land or resource management plan							
An existing water management plan							
Protected areas							
Other (specify)							

Table 3 Potential Effects Identification Matrix

Criteria	Potential Level of Effect						Comments, Rationale
	-H	-L	Nil	Unk	+L	+H	
Cultural Heritage Resources Considerations							
Archaeological sites							
Buildings or structures							
Cultural heritage landscapes							
Other (specify)							
Social and Economic Considerations							
The Location of people, businesses, institutions, or public facilities							
Community character, enjoyment of property, or local amenities							
Employment							
Public health and/or safety							
Local, regional, or provincial economies							
Tourism values							
Water supply							
Aesthetic image of the surrounding area							
Other (specify)							
Energy/Electricity Considerations							
Reliability (e.g. voltage support)							
Security (e.g. Black Start)							
Electricity flow patterns							
Other (specify)							

4.2.3 Public Consultation and Aboriginal Engagement

As outlined in **Sections 6** and **7**, respectively, effective public consultation and Aboriginal engagement by the proponent is key to ensuring meaningful and reasonable participation.

Within the boundaries established in the public consultation and Aboriginal engagement plans and/or processes, consultation approaches should incorporate some flexibility so the proponent can respond to circumstances that were not originally anticipated. For example, where a project creates a greater level of public concern than expected, the proponent may expand upon the process to ensure that consultation techniques employed are relative to the concerns or interest expressed. Where a project shows a lower level of public interest or concern than was anticipated, a proponent may contract the consultation approach to reflect this, provided all mandatory points of notification are made. Interested parties have the responsibility to take advantage of opportunities provided by proponents for public involvement during the Class EA project process. The interested party should bring to the attention of the proponent concerns that they may have about the

potential effects of the project as early as possible. The sooner the concerns are brought to the attention of the proponent, the greater the flexibility the proponent has to attempt to accommodate these considerations in the project and in the planning process. Interested persons should make their request very clear and should focus on concerns associated with the potential effects of the project, not on previous planning decisions, broad policy or just not wanting the project in their community.

In some instances, the proponent will need to assess the likelihood of issue resolution and may wish to consider the early use of alternative dispute resolution methods (see reference in **Appendix C**). It may also be of benefit for the proponent to identify the concern(s) with MOE and/or other agencies, as appropriate. The proponent's impact and issue management strategies should document such concerns and the approach taken.

4.2.4 Gap Analysis, Data and Information Collection/ Acquisition

Completion of the Potential Effects Identification Matrix will help inform the relative priorities for addressing key data and information gaps and contribute to the design and implementation of the proponents' data acquisition strategy. The proponent will also have had the benefit of the agency coordination meeting, response to the Notice of Commencement and initial advice from public consultation and Aboriginal engagement, as appropriate. This evaluation of the project impacts and issues should also be undertaken considerate of other project-specific legislative requirements such the *CEA Act*. While some information may not be required until the permitting and approval stage, (i.e., after EA), early identification of these requirements will facilitate coordinated and efficient information gathering.

4.3 Phase 3 – Project Assessment

This phase of the project focuses on prioritizing and assessing key potential impacts and issues and developing strategies and mitigation measures to manage them. All projects follow a similar project path, but reflective of the specific considerations identified through the potential effects identification and public response. At the completion of the project assessment phase, the proponent should be in a position to asses the overall environmental advantages and disadvantages of the project.

4.3.1 Assessment of Effects

At this part of the process the proponent, using the potential effects identified during the phase discussed in **Section 4.2.2** as a guide, confirms the potential effects of the project, determines the appropriate avoidance, prevention and/or mitigation strategies and assesses the net effects of the project. If the project has potential to cause negative effects, the resultant ER must provide information that summarizes:

- the potential negative effect;
- the relative level of the effect;
- the mitigation or impact management measures that will be used;
- any individual net effects (after mitigation) and their significance; and
- the overall positive, neutral and negative effects of the project.

The assessment of the significance of net effects after impact management and mitigation should consider the value of the resource affected, geographic extent of the effect, duration and frequency of the effect, irreversibility of the effect, and ecological / social context, as described below:

The importance of the value affected

Some values may be given a higher priority than others. For example, an affect on public safety would most often be of more importance than an affect on recreational use.

Duration and frequency
Longer term or more frequent effects may be greater.

Geographic extent
While the categorization of projects is premised on the environmental context within which projects will occur, potential impacts and benefits should nonetheless be considered based on their geographic extent.

Irreversibility of the effect
Some potential effects may not be easily remedied or mitigated. Some effects can be reversed over a period of time. The potential irreversibility of an effect should be considered.

Ecological / Social Context
All potential effects should be assessed in both an ecological and social context. The potential impacts or benefits of projects may be significant. For example, impacts that occur in areas or regions that are ecologically fragile and have little resilience to imposed stresses may be of particular importance. Similarly, benefits to local communities (e.g., flood/drought mitigation) may provide value above and beyond electricity production.

4.3.2 Impact and Issue Management Strategies

A key purpose of applying this Class EA is to help proponents identify and avoid, prevent or mitigate effects that may be potentially negative. This Class EA has adopted the conceptual hierarchy of avoidance, prevention and mitigation for all projects across the categories. Where impacts cannot be avoided or prevented (e.g., project location), mitigation measures will be considered.

Mitigation measures can include:

- reducing the magnitude, duration etc. of the impact;
- repairing the situation post-impact to achieve (more of a) pre-impact state;
- offsetting the impact through other means, not necessarily directly related to that impact; and
- enhancing positive effects where possible.

While there is a suite of standard approaches to mitigation of effects associated with waterpower projects (see **Appendix B**), the state of the science(s) continues to evolve and improve and the toolbox of approaches continues to expand. As listed in **Appendix C**, the OWA will undertake to provide access to the best available information on mitigation techniques on an ongoing basis, rather than to limit the creativity of proponents through prescriptive measures.

With respect to issue management, the proponent should consider the degree to which the concerns expressed are persistent or new and the effectiveness of investments already made in attempting resolution. It is at the discretion of the proponent to determine whether or not additional public consultation is appropriate at this stage of the project. This determination is most likely to be made considerate of the results of previous consultation and the degree to which any outstanding issues and/or impacts could reasonably be expected to be resolved. The proponent may also wish to consider the potential effectiveness of self-directed mediation for significant outstanding issues.

If the proponent determines that net effects and outstanding issues (after mitigation) are significant and have not been resolved through the proposed impact and issue management strategies, these strategies may be revisited or revised. In terms of time and efficiency, it is in the proponent's best interest to attempt to address significant concerns associated with potential effects to the environment. This approach can help reduce the potential for such concerns to be the subject of a Part II Order request later in the process. The proponent may also determine that the importance of net effects, the costs of mitigation or the significance of unresolved issues make the project unfeasible.

4.4 Phase 4 – Project Documentation

The outcome of the project assessment phase of the Class EA process will be documented the Environmental Report (ER), including a description of impact management strategies, the significance of any remaining net effects, concerns or issues, and the overall project advantages and disadvantages. The following subsections describe the required contents of the ER and associated mandatory notices under the Class EA process.

4.4.1 Environmental Report

After seeking input and advice from the public, agencies and Aboriginal communities, as appropriate, determining the relative priorities and identifying methods to address impacts and issues, the proponent will prepare the project's ER. The report will be reflective of the relative complexity of the project, as informed through the evaluation and consultation processes. The ER includes a description of the environmental factors assessed, the potential adverse effects on these factors, details of the effects and an impact management strategy. Issues that remain outstanding and the approach taken by the proponent in attempting to resolve them must be documented in the ER. In addition, the proponent must summarize how comments received from the Notice of Commencement and from public consultation and Aboriginal engagement activities were considered, as appropriate.

The ER must contain:

- Background information (project description, purpose);
- Map of project location and study area;
- Description of the study area and the existing environmental context;
- A completed potential effects identification matrix;
- A description of potential effects (positive and negative);
- The results of the analysis, evaluation, and assessment conducted for the subject effects, concerns or issues;
- Information on public and agency consultation, including a description of the public and agency consultation program and consultation activities/ events, a list of agencies contacted, summary of public and agency concerns or issues and how they have been or have attempted to be addressed;
- Information on Aboriginal community involvement, including a description of the engagement program and activities/events, a list of communities contacted, summary of community concerns or issues and how they have been or have attempted to be addressed;
- Changes to the original proposal, if any, resulting from the environmental evaluation and/or consultation and engagement processes;
- Description of the net effect(s) (after mitigation), if any, including an identification of the significance of the net effect(s);
- Planned avoidance/prevention/mitigation and/ or other impact management measures for any potential negative effects;
- A review of overall advantages and disadvantages of the project, including a discussion of any benefits that might offset disadvantages;
- A summary of planned construction and post-construction monitoring programs, as required, including mechanisms for their implementation and reporting;
- Technical reports supporting the findings, as appropriate;
- Anticipated timelines for project implementation; and
- A listing of any other known required approvals and permits.

The ER should also facilitate the provision of the required documentation for review and decision through the federal EA process, after which, provided the decision is favorable, the proponent may pursue the required federal permits.

4.4.2 Notice of Inspection for Projects on Unmanaged Waterways

The Notice of Inspection is an additional notice required for projects on unmanaged waterways. It provides participants in the process with an additional opportunity to review the ER and to comment on a proponent's proposed implementation approach. This step, although not required by the Electricity Projects Regulation, has been added recognizing the increased likelihood of complexity for these types of projects. The manner of distribution will be at the discretion of the proponent, but the Notice must be provided to participants who have expressed an interest in the project. Participants will be given the opportunity to provide comments during the Notice of Inspection period (30 days) and will be placed on a mailing list to be directly notified of the Notice of Completion. Proponents will collate the comments received and consider any outstanding issues. Proponents will then finalize the ER before issuing the Notice of Completion. The Notice of Inspection should include:

- A title indicating the project name and location;
- A summary description of the project;
- A map of the location of the project and anticipated zone of influence;
- An invitation to provide comments on the ER;
- A description of how the ER can be accessed (e.g. electronically, in hard copy at convenient locations) and reviewed;
- An invitation to any additional public consultation activities (if planned), along with the date, time, location, etc.;
- A contact name, address, telephone and fax number, and email address; and
- Deadline for comment (30 days).

A template for the Notice of Inspection is included in **Appendix D**.

4.4.3 Notice of Completion

For Projects Associated with Existing Infrastructure, the Notice of Completion will be directly sent to all Aboriginal communities, agencies and other parties who expressed interest when the Notice of Commencement was issued and to those who participated in the consultation process. For all other categories of projects, the Notice of Completion will also be sent to the distribution list created for the Notice of Commencement.

The Notice of Completion must include:

- The information required for the Notice of Commencement;
- The conclusions of the ER;
- Information regarding how the ER may be accessed and reviewed;
- Deadline for comment (30 days);
- A stipulation that concerns should be addressed with the proponent, and if the issue should remain unresolved, that a written request can be made to the Minister of the Environment (or delegate) for a Part II Order;
- The address of the Minister of the Environment (or delegate); and
- The last date when Part II Order requests will be received.

Proponents will consider comments received and any outstanding issues that may require further consultation. Further consultation is at the discretion of the proponent at this stage of the process. Input and advice received during the comment period will be discussed in the Conclusion of EA component of the Statement of Completion. A party requesting a Part II Order must make such a request within 30 days of the issuance of the Notice of Completion. **Section 8.6** provides detail on the process involved in a Part II Order request.

A template for a Notice of Completion is included in **Appendix D**.

4.5 Phase 5 – Project Implementation

4.5.1 Statement of Completion

Proponents will document in the project files any outstanding issues resulting from the Notice of Completion and review period. Proponents should also contact the Environmental Assessment and Approvals Branch to verify that no Part II Order Requests (see **Section 8.6**) were received during the Notice of Completion comment period. Once comments are documented and addressed, as appropriate, and it has been confirmed that no Part II Order requests were received, the proponent may file the Statement of Completion and will make the final project documentation publicly available. Filing of the Statement of Completion indicates completion of the project under the *EA Act* and the conclusion of the EA component of the project and the proponent may proceed with the project permitting and approvals processes.

Proponents will complete a Statement of Completion form, and file a copy with the MOE Regional EA Coordinator and the Director of MOE's Environmental Assessment and Approvals Branch, with copies to the District MNR Office, and the President of the OWA. The proponent is also required to retain a copy for a minimum of ten years.

The Statement of Completion for all projects must include the following information:

- Proponent information
  - Proponent name
  - Contact name
  - Proponent mailing address, telephone and fax numbers, and email address
- Site information
  - Site mailing address
  - Site survey address
- Project information
  - Project name
  - Nameplate capacity of facility (MW/kW)
  - Category of Class EA completed
- Document Availability Information
  - Details of where records are kept and can be accessed
- Part II Order Request Information
  - Describe how many Part II Order Requests were received and basis of concern
  - If any received, a description of how they were addressed
- Statement of Proponent
  - A statement that the information contained in the Statement of Completion is complete and accurate and that it has complied with the requirements of the Class EA
- Conclusion of Class EA
  - Conclusion of the final Environmental Report
- Documentation of Aboriginal engagement (as appropriate)
  - A summary of key points of engagement, issues and outcomes
- Documentation of public and agency consultation
  - A summary of key points of consultation, issues and outcomes

A template for the Statement of Completion is included in Appendix D.

4.5.2 Subsequent Permits and Approvals

Once the Statement of Completion has been filed and subject to any other approval requirements the proponent can proceed with the next stage of the project. As detailed in **Section 5**, of specific relevance to most waterpower projects are likely to be approvals related to fish and fish habitat (*Fisheries Act*), navigation (*Navigable Waters Protection Act*), infrastructure (*Lakes and Rivers Improvement Act*) and land disposition (*Public Lands Act /Provincial Parks and Conservation Reserves Act*).

The proponent should have satisfied the substantive environmental planning-related requirements for these subsequent permits and approvals and, through the coordination meeting and subsequent dialogue with provincial and federal agencies, will have identified project-specific requirements.

The project must be implemented in the manner described in the ER. Any further commitments the proponent made to address concerns after the report was prepared must also be fulfilled as the project is implemented. The proponent must also comply with any conditions that the Minister or his/her delegate applies in a decision not to issue a Part II Order for a project. During implementation of the project, the proponent must undertake any effects monitoring programs outlined in the ER. As detailed below, monitoring is often necessary to ensure that the mitigation measures identified in the ER are fulfilled and are effective.

4.5.3 Effects Monitoring

Effects monitoring strategies may be required for any project subject to this Class EA. Potential monitoring requirements and the level of monitoring that is necessary for the undertaking should be considered throughout the planning process for these projects (e.g., during the project assessment stage of the Class EA process). Monitoring can be relevant at all stages of a project (e.g., site preparation, construction, commissioning, operation etc.) and may also be a condition of subsequent permits and approvals.

It may be important to monitor to verify the extent of effects (and compare actual with predicted effects), effectiveness of impact management strategies and whether additional measures are warranted. This may be particularly true in cases for projects where the ER indicates that there may be significant net effects.

Monitoring programs should consider and document the following:

- Component: the environmental component or strategy being monitored and the scope of the program;
- Rationale: the reason for monitoring;
- Methods and timing/duration: the procedures that are to be used for monitoring (e.g., techniques, equipment, indicators, measurements, duration, frequency, etc.);
- Reporting: provision for reporting of data, results and action taken, including frequency and to whom results are reported; and
- Adaptive Management: provision for additional actions that may be required to mitigate an impact, including any related monitoring.

Appendix C references resource material available from the OWA on the subject of effects monitoring.

4.5.4 Document Retention

Proponents are required to retain all Notices, a copy of the ER and any Monitoring Reports. Records of public, agency and Aboriginal consultation may support subsequent approvals and permitting processes. These records must be retained for a minimum of ten years and be made available pursuant to Freedom of Information and Protection of Privacy Provisions.

5.0 CO-ORDINATION WITH AND INTEGRATION OF OTHER LEGISLATIVE REQUIREMENTS AND PROCESSES

A key objective of this Class EA is to identify opportunities to create a process that facilitates coordination with and integration of other legislative and regulatory requirements specific to a project. The consultation, evaluation and documentation prepared through the Class EA process can help to meet the requirements of legislation that has common environmental planning and public involvement features. Adoption of the "one project-one process" model will help ensure agency, Aboriginal community and public engagement is efficient and effective. This approach can also provide much of the information required for subsequent approvals. It is expected that when completing permitting applications, the proponent will be able to refer to the Environmental Report prepared under this Class EA for much of the required information.

The Class EA provides an opportunity to identify potentially relevant requirements early in the process and to coordinate these requirements with appropriate agencies. The proponent-agency coordination meeting described in **Section 4** is designed to help determine project-specific legislative requirements. Of particular relevance in terms of coordination are the following:

- EA provisions of other provincial Class EAs;
- Federal requirements for waterpower projects; and
- Additional provincial approvals for waterpower projects.

5.1 Environmental Assessment Provisions of other Class EAs

There may be circumstances when there are elements of a waterpower project that could involve more than one Class EA, and, potentially, more than one proponent. In such situations, both proponents or project elements would require *EA Act* approval and if they were each working or undertaken alone, would follow their respective Class EAs. However, arrangements can be made to provide for the use of one or the other Class EA in order for proponents to fulfill their *EA Act* requirements for the project. This can reduce redundancy and duplication of effort, simplify the planning and development of the project and eliminate confusion on the part of the public and other stakeholders.

For example, two proponents of Class EA projects may want to jointly proceed with a project that is included in the respective Class EAs. Both require *EA Act* approval and both have the option of using their respective Class EAs. It would be logical to work together under one Class EA or the other. For this to be possible, the Class EAs must have corresponding provisions providing for co-proponency under one or the other Class EA. In the absence of such provisions, proponents of waterpower projects pursuant to this Class EA are encouraged to establish a coordination approach with the proponent(s) of the other Class EA (s) and ensure that the preferred approach is made clear to MOE and in all Notices and public consultation initiatives.

5.1.1 Class EA for Minor Transmission Facilities – (Hydro One, 1992)

The Class EA for Minor Transmission Facilities, as prepared by Hydro One, sets out a planning process for undertakings that involve transmission facilities projects, as does this Class EA when these transmission facilities are planned in association with a generation facility (see **Section 3.3**). New waterpower projects and significant redevelopments can involve construction of new and/or modification to existing Hydro One Transmission and sub-transmission infrastructure complete with Rights of Way (RoW). Providing a single EA process for assessing generation and associated transmission projects together increases efficiency and transparency. Building on the requirements of the environmental screening process,

this provides good rationale to have such proposals evaluated through this Class EA. Minor transmission facilities are described to include:

- all transmission line projects involving more than 2 km of line and that:
  - o are capable of operating at a nominal voltage level of 115 kV
  - o are capable of operating at a nominal voltage level higher than 115 kV and less than 500 kV and which involve less than 50 km of line; and
- transformer and distributing stations whose station's nominal operating voltage level is not less than 115 kV and not more than 500 kV.

Though the Class EA for Minor Transmission Facilities does not include provisions for co-proponents, the Guide to the Electricity Projects Regulation stipulates that transmission lines that are associated with a Category B project are to be considered part of the generation project. This provides good rationale to have such proposals evaluated through this Class EA, though the evaluation may be applied separately to the generation and transmission components, at the discretion of the proponent. Similarly, transformer or distribution stations that are 115 kV or greater and associated with a waterpower project under this Class EA can be reviewed through this process. In instances wherein the generation and transmission proponents are different parties, a cooperative approach may be arranged and should be communicated to MOE Regional EA Coordinator prior to the issuance of the Notice of Commencement. In cases of common transmission facilities for multiple generation facilities, proponents may develop a cooperative approach or proceed individually, at their discretion. Again, the approach should be communicated to MOE Regional EA Coordinator prior to the issuance of the Notice of Commencement.

5.1.2 Class EA for MNR Resource Stewardship and Facility Development Projects (MNR, 2002)

The Ontario Ministry of Natural Resources' (MNR) Class EA for Resource Stewardship and Facility Development Projects (Class EA-RSFD) sets out requirements for MNR projects (including projects not initiated by MNR) involving an application for the disposition of certain or all rights to a Crown resource.

The Class EA-RSFD states that proponents of electricity sector projects are required to fulfill their *EA Act* requirements before applying to the MNR for the disposition of certain or all rights to Crown resources through such means as permits, land sales, licenses, approvals, permissions or consents. For waterpower projects, this may include dispositions such as:

- A waterpower lease agreement;
- An easement; or
- Any other authorization that involves the disposition of certain or all rights to Crown resources.

The Class EA-RSFD provides that projects subject to an EA under the *EA Act* are not subject to the screening criteria in the Class EA-RSFD. This means that, if waterpower projects are planned according to this Class EA for Waterpower Projects, MNR will participate in and recognize that process.

Proponents of waterpower projects must provide MNR with evidence that they have fulfilled their requirements under the *EA Act* before MNR will proceed with the disposition. This should be in the form of the Statement of Completion. Note that under exceptional circumstances, the Class EA-RSFD may apply if an unanticipated project component on Crown land has not been included in the initial project description (i.e., a road to do unanticipated assessment work).

Projects that are covered under Category A under the Electricity Projects Regulation and involve a new disposition of rights to Crown resources are subject to the Class EA-RSFD, but are not subject to the requirements of this Class EA. Proponents are encouraged to engage MNR early in the process to allow MNR to bring forward information. MNR retains decision-making and approval authority for all dispositions regardless of a project's authorization under the *EA Act*.

5.1.3 Class Environmental Assessment for Provincial Parks and Conservation Reserves (MNR, 2004)

The types of projects described in the Class EA PPCR include:

- Carrying out projects related to the management of parks and conservation reserves, such as general operations, constructing facilities, and managing natural resources;
- Establishing, amending and rescinding boundaries for provincial parks and conservation reserves; and
- Acquiring and disposing of land for a new or existing park or conservation reserve.

This Class EA anticipates and deals directly with the issue of coincident EA processes and, in particular with "Projects by Other Proponents Not for Protected Area Objectives," such as public highways, transmission lines or pipelines. The Class EA stipulates that "Such projects are not subject to this Class EA, and are dealt with through other EA mechanisms, such as:

- The appropriate Class EA;
- for highway development, Class EA for Provincial Transportation Facilities;
- for municipal road or municipal services development, Municipal Class EA; or
- for a hydro transmission line and associated facilities 115 kV or over and less than 500 kV, Class EA for Minor Transmission Facilities.

Specific to electricity projects, the Class EA indicates the following types of projects either exist now or may be expected to arise in the future:

- Existing waterpower facilities and associated infrastructure (e.g., transformer stations, transmission lines, access roads) within a protected area may undergo maintenance or modification of the facility from time to time, for example to improve efficiency.
- Where a binding commitment by the Crown was made prior to the release of the Proposed Ontario's Living Legacy Land Use Strategy on March 29, 1999, to permit the development of a new waterpower facility.
- Maintenance and modification of existing electricity transmission line corridors.
- Development and maintenance of new electricity transmission line corridors.

Where proposed projects are not for the purpose of the protected area but may be permitted in accordance with provincial policy, MNR will participate in the required EA process and may have information and requirements to help ensure that protected area values are properly identified and considered. As such, where waterpower projects are proposed in a protected area, the Class EA for Waterpower Projects will be followed and MNR will participate. In such instances, proponents are advised to consult with MNR early in the project planning process.

5.1.4 Class Environmental Assessment for Remedial Flood and Erosion Control Projects (Conservation Ontario, 2002)

Under this Class EA, Remedial Flood and Erosion Control Projects refer to those projects undertaken by Conservation Authorities that are required to protect human life and property in previously developed areas from an impending flood or erosion problem. Such projects do not include works which facilitate or anticipate development. Major flood and erosion control undertakings which do not suit this definition, such as multipurpose projects, lie outside the limits of this Class and require an individual EA.

While this Class EA does not stipulate an approach for the coordination of EA processes, it is reasonable to expect that, in some instances, a waterpower project may coincide with work being proposed under this Class EA. Where such intersection occurs, coordination and cooperation is encouraged.

Moreover, there are a number of Conservation Authorities that are proponents or co-proponents of waterpower projects. In these instances, the Class EA for Waterpower Projects will apply to the Conservation Authority for the project.

5.1.5 Other Class EAs

The specifics of some projects may also involve overlap with a project subject to another Class EA, such the Municipal Engineers Association Municipal Class EA. Where such overlap does occur, proponents of waterpower projects will be expected to consult with proponents of projects under other Class EAs and are encouraged to review project details with the MOE Regional Office.

5.2 Federal Requirements for Waterpower Development Environmental Assessment Processes in Ontario

This section focuses on an area of significant interest and effort in EA generally: federal-provincial coordination. In 2006, the Ontario Waterpower Association partnered with Fisheries and Oceans Canada to develop a "Practitioner's Guide" to Federal Requirements for Waterpower Development Environmental Assessment Projects in Ontario. The advice provided here relies heavily on that publication and on progress made in improving coordination since. **Appendix C** references that document and additional resource material specific to federal-provincial coordination.

5.2.1 Canadian Environmental Assessment Act Requirements (CEA Agency)

The *CEA Act* is a federal law that applies to the federal government where it is the proponent, providing financial assistance, owns or administers federal lands or is issuing a permit or approval in order to enable a project in whole or in part to proceed. The purpose of the legislation is to ensure that the effects of projects are considered before irrevocable decisions are made by federal authorities. The *CEA Act* requires federal decision-makers or responsible authorities (RAs) to consider the effects of proposed projects prior to their taking an action that would enable a project to proceed.

In order for the *CEA Act* to apply, there must be: (1) a federal authority; (2) a subsection 5(1) trigger (i.e., a federal power, duty or function in respect of the project); and (3) a project that is not excluded. It is expected that the *CEA Act* will apply to many waterpower projects that are the subject of this Class EA due to the need for *Fisheries Act* authorizations and/or approvals under the *Navigable Waters Protection Act* (*NWPA*).

Despite a few key differences between these requirements, there are opportunities to coordinate federal and provincial EA processes. One of the important differences is the consideration of "cumulative effects" under the *CEA Act*. Guidance on cumulative impact assessment is provided as a reference in **Appendix C**.

The Class EA process is intended to allow flexibility to address the specific requirements and responsibilities of the federal responsible authorities while at the same time increasing the predictability of the process. This will allow RAs to rely upon the information collected under the Class EA process to help meet their obligations under the *CEA Act* and create a more consistent and predictable process for proponents.

As outlined in the Practitioner's Guide, there are a number of steps within the EA process where coordination can help avoid duplicate efforts, including:

- Preparation of Project Descriptions;
- Communication;
- Scoping/Evaluation;
- Public Consultation;
- Technical Studies and Assessments; and
- EA Documentation.

These steps may also provide opportunities to convene discussions between the proponent and the federal and provincial agencies with an interest in the project.

Project Descriptions

One of the first steps under both the Waterpower Class EA process and the *CEA Act* is the preparation of a project description. Under the Class EA a project description is prepared in support of the Notice of Commencement. At this time, the project description can also be submitted to the Agency to facilitate the initiation of the Federal Coordination Process under the *CEA Act* (a process by which federal authorities determine if they will have an interest in the project as an RA or as an expert federal department). Details on information requirements for project descriptions for waterpower projects are found in the Practitioner's Guide and in the CEA Agency's Operational Policy Statement on Preparing Project Descriptions under the *Canadian Environmental Assessment Act*.

Due to the nature of waterpower projects, it is likely that key federal authorities will be able to make an early determination of whether they have a *CEA Act* trigger for the proposed project, even before very specific details on the project are known. Federal authorities recognize the importance of identifying information needs to the proponent as early in the EA process as possible and, therefore, will likely agree to participate as if they are an RA in accordance with the "in until you're out" principle.

Communication

Coordination is facilitated by effective communication, hence the emphasis on the participation of all key federal and provincial agencies early in the process at the proponent-agency coordination meeting. Where there are projects subject to both the *CEA Act* and the Class EA, the Federal Environmental Assessment Coordinator (FEAC) will often coordinate federal participation. Ongoing dialogue with the FEAC and RA(s) as required will help facilitate the completion of good quality EAs that meet legislative requirements.

Scoping

One of the initial steps in the federal EA process is the determination of the scope of project and the scope of assessment. The responsibility for determining the scope of project (i.e., what components are to be considered to be part of the project for the purpose of the assessment) and the scope of assessment (i.e., what are the factors and scope of factors to be considered in the EA) rests with the RA(s). For more complex projects, a scoping document may be prepared to identify the scope of project and scope of assessment. Scoping documents can be prepared either by the RA(s) or the proponent. While not a legislated federal requirement for screening level EAs, a scoping document is an efficient way to ensure that all parties participating in the EA process have the same understanding of the scope of project and scope of assessment. The scoping document is then used as a basis for the preparation of the EA document. Up-front scoping ensures that the assessment focuses on the most relevant issues and results in more efficient EA processes.

For projects covered under the Class EA, the federal scope of assessment will involve the determination of: the undertakings and activities that must be assessed and the factors that need to be considered in the environmental assessment. The results of the application of the potential effects identification matrix in **Section 4** will also assist proponents in an early identification of potential effects. The purpose of the criteria is to identify

the potential for any positive and negative effects on the environment. However, the federal EA only evaluates negative effects. In this context, no matter how many or how large the positive effects of a project, a significant unresolved negative effect can preclude federal approval. The scope of the federal assessment may also encompass other factors not addressed by the criteria in the potential effects identification matrix. Proponents should identify such additional factors with federal agencies as early as possible.

Public Consultation

Public participation for federal screenings is at the discretion of the RA. However, if public consultation is being undertaken for a federal screening, there may be opportunities to coordinate this consultation with that which is being undertaken by the proponent through the Class EA. There may also be other opportunities to coordinate consultation undertaken for other legislation (e.g., approvals under the *Navigable Waters Protection Act*).

In addition, subsection 18(3) of the *CEA Act* provides an opportunity for the consideration of public comments on a federal screening report. The opportunity for public comment is provided at the discretion of the RA. If an RA(s) determines that public participation will be undertaken in accordance with subsection 18(3), there is an opportunity to coordinate this with the public consultation undertaken under the Class EA. In instances where such coordination is possible, comments from the public could be received within the same time frame and the RA and proponent should meet to discuss the resolution of the comments. The Class EA includes mandatory notifications and recommends the development of public consultation and Aboriginal engagement plans, as appropriate. Since consultation under the federal process is discretionary, an RA could consider the results of the proponent's consultation initiatives in undertaking the federal screening and when making their *CEA Act* decision.

If an RA(s) determines that public participation will be undertaken, there is a requirement for notification or EA documentation to be made available in both official languages. This should be discussed with the RA(s) in sufficient time to allow for translation to occur.

Technical Studies and Assessments

Successful coordination of technical studies and assessments is facilitated by early discussions with provincial ministries and federal departments to determine their information requirements. The Class EA emphasizes the value of these discussions through the inclusion of a proponent-agency coordination meeting as a key initial step in the EA process.

The inclusion of relevant federal departments will help determine the nature and extent of technical information that will be required to undertake the *CEA Act* assessment. Ideally, the technical studies and investigations that are undertaken will be sufficient to meet the needs of both the *CEA Act* and the Class EA for Waterpower Projects under the *EA Act*.

EA Documentation

Information on existing conditions, the assessment of potential effects and mitigation measures should be documented to address both federal and Class EA processes. While the *CEA Act* component of the assessment must be prepared in a manner that allows the RAs to delineate the basis for their decision, the Canada – Ontario Agreement on Environmental Assessment Cooperation indicates that "proponent(s) will present its findings on predicted effects of the project in a single body of documentation" (November, 2004).

In order to achieve this, it may be practical and reasonable to prepare a single body of documentation that meets the needs of both the *CEA Act* and the Class EA. For example, the documentation prepared for the social, cultural, economic and environmental evaluation

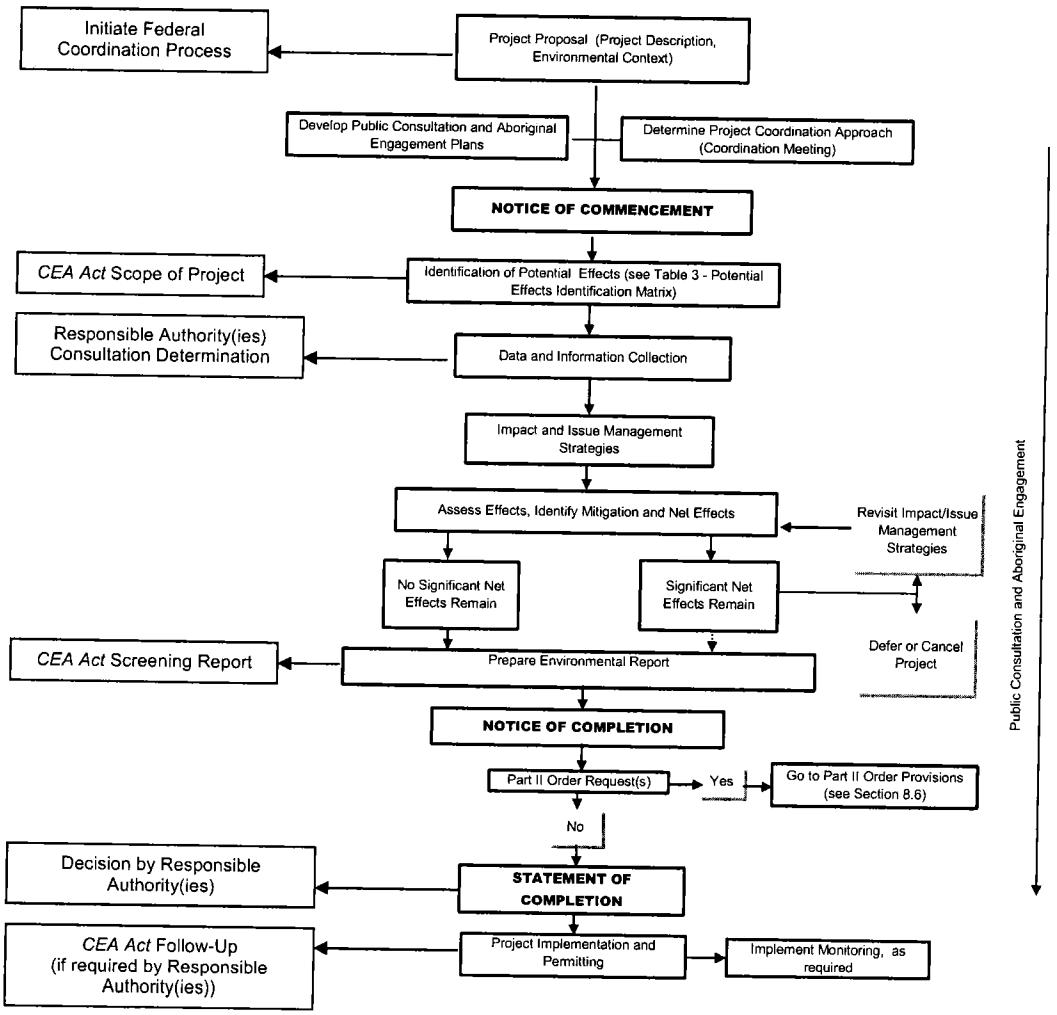
(**Section 4.2.2**) or the ER in accordance with the Class EA could explicitly address and document federal issues and areas of federal interest.

A single body of documentation can also be created by incorporating technical information pertaining to specific federal issues into the overall assessment, but documenting elements specific to the *CEA Act* in a separate screening document which would serve as an appendix to the provincial EA documentation.

Discussions held with federal authorities should determine their documentation needs. The most appropriate approach will be determined by the proponent on a project-by-project basis.

Figure 7 provides an overview of the integration of these key steps in the federal process into the Class EA for waterpower projects flow chart. **Appendix E** provides a list of potential federal triggers for a waterpower project.

Figure 7 Incorporation of Key Federal Environmental Assessment Process Requirements



The majority of EAs for waterpower projects undertaken in accordance with the *CEA Act* are expected to be classed as Screenings. In these instances, screening reports are prepared. However, projects on the Comprehensive Study List Regulations must be assessed as a comprehensive study, in accordance with the *CEA Act*. Comprehensive study reports are prepared for these projects.

The following waterpower projects are on the Comprehensive Study List Regulations:

- the proposed construction, decommissioning or abandonment of a hydroelectric generating station with a production capacity of 200 MW or more;
- the proposed construction, decommissioning or abandonment of a hydroelectric generating station that would result in an increase in production capacity of 50% or more and 200 MW or more;
- the proposed construction, decommissioning or abandonment of a dam or dyke that would result in the creation of a reservoir with a surface area that would exceed the annual mean surface area of a natural water body by 1,500 hectares or more, or an expansion of a dam or dyke that would result in an increase in the surface area of a reservoir of more that 35%;
- the proposed construction, decommissioning or abandonment of a structure for the diversion of 10,000,000 m^3/year or more of water from a natural water body into another natural water body or an expansion of such a structure that would result in an increase in diversion capacity of more than 35%;
- the proposed construction, decommissioning or abandonment of a facility for the extraction of 200,000 m^3/a or more of ground water or an expansion of such a facility that would result in an increase in production capacity of more than 35%; or
- the creation of a lake in excess of 1,500 ha.

5.2.2 Fisheries Act (Fisheries and Oceans Canada)

The federal *Fisheries Act* provides for the protection of fish habitat, which is defined as: "spawning grounds and nursery, rearing, food supply and migration areas on which fish depend directly or indirectly in order to carry out their life processes." Under the *Fisheries Act*, no one may carry out any work or undertaking that results in the harmful alteration, disruption or destruction (HADD) of fish habitat, unless this HADD has been authorized by the Minister of Fisheries and Oceans Canada. An authorization under Section 35(2) of the *Fisheries Act* is a regulatory trigger under the *CEA Act*.

In particular, the following requirements of the *Fisheries Act* are of potential importance in the context of the planning process through the Class EA:

- *Section 35:* The prohibition against the harmful alteration, disruption or destruction of fish habitat, unless authorized by DFO;
- *Section 20:* Passage of fish around migration barriers;
- *Section 22:* The provision of sufficient water flows;
- *Section 30:* Screening of water intakes;
- *Section 32:* Prohibition against the destruction of fish by means other than fishing, unless authorized by DFO; and
- *Section 36:* Prohibition to deposit deleterious substances unless by regulation (administered by Environment Canada, with the exception of subsection 36(3) with respect to sediment).

Based on the above provisions, a waterpower project will almost always involve review and possible authorization under the federal *Fisheries Act* and studies conducted under this Class EA should involve collection of appropriate information on fish and fish habitat. The completion of an undertaking under this Class EA does not remove Fisheries and Oceans Canada's decision-making authority under the *Fisheries Act*, but it is expected that a proponent using this Class EA will satisfy the substantive planning requirements related to completing an EA under the *CEA Act*.

Proponents should also note that agreements have been negotiated between individual Conservation Authorities and DFO to review plans for development that may harm fish habitat pursuant to Section 35 of the *Fisheries Act*. Levels of the Agreement include:

- *Level I:* The local Conservation Authority conducts the initial review of the project to identify any impacts to fish and fish habitat. If there are potential impacts to fish and fish habitat, the project is forwarded to the local DFO office for further review.
- *Level II:* In addition to the above, the Conservation Authority determines how the proponent can mitigate any potential impacts to fish and fish habitat. If impacts to fish and fish habitat can be mitigated, then the Conservation Authority issues a letter of advice. If impacts to fish and fish habitat cannot be fully mitigated, the project is forwarded to the local DFO office for further review.
- *Level III:* In addition to all of the above, the Conservation Authority works with the proponent and DFO to prepare a fish habitat compensation plan. The project is then forwarded to the local DFO office for authorization under the *Fisheries Act*.

DFO also has partnering agreements with Parks Canada. Additional information regarding the requirements for an "Application for Authorization for Works or Undertakings Affecting Fish Habitat" is available through the OWA and from DFO.

5.2.3 Navigable Waters Protection Act (Transport Canada)

The *Navigable Waters Protection Act* (*NWPA*) applies to all navigable waters in Canada and includes a canal and any other body of water created or altered as a result of construction of any work. Of particular relevance to the planning of an undertaking conducted under this Class EA is Section 5(1) of the *NWPA*, which requires approval by the Minister of Transport for the construction or placement of work in, on, over, under, through or across navigable waters. A bridge, boom, dam, or causeway always requires approval. Other work (e.g., docks, pipes, spawning bed construction) requires approval unless the federal Minister or delegate is of the opinion that the work does not interfere substantially with navigation. If an approval under *NWPA* is required, this would trigger the requirement for an assessment by the responsible federal agency under the *CEA Act*.

During the preliminary design of a project under this Class EA, a proponent must determine whether the waterpower facility involves navigable waters. To determine whether or not a waterway or watercourse is considered to be navigable, proponents should contact Transport Canada – Coast Guard. It is expected that a proponent using this Class EA will satisfy the substantive planning requirements related to obtaining a permit under the *NWPA*, but completion does not remove the decision-making authority under the NWPA.

5.2.4 Historic Canals Regulations and National Parks Act (Parks Canada)

The protection of natural and cultural resources is an important objective of the Historic Canals Regulations, while protection of ecological conditions is an important part of managing Canada's national parks. The beds of lakes, rivers, streams and other water bodies within these sites are owned by the federal government and administered by the Parks Canada Agency. Any projects or works in or directly adjacent to waters on these federal lands are to be referred to the Parks Canada Agency for their review and approval. Proponents are advised to determine as early as possible and with the assistance of MOE whether the *EA Act* and subsequently this Class EA applies to projects that have implications with or components on federal lands.

5.2.5 Species at Risk Act (Environment Canada, Fisheries and Oceans Canada)

The purposes of the *Species at Risk Act* (*SARA*) are to:

- prevent Canadian indigenous species, subspecies, and distinct populations from being extirpated or becoming extinct;
- provide for the recovery of wildlife species that are extirpated, endangered or threatened as a result of human activity; and

- manage species of special concern to prevent them from becoming endangered or threatened.

Two federal Ministers are responsible for the administration of *SARA*. The Minister of Fisheries and Oceans Canada is responsible for aquatic species at risk. The Minister of Environment (through the Parks Canada Agency) is responsible for species at risk found in national parks, national historic sites or other protected heritage areas. The Minister of the Environment is also responsible for all other species at risk, and for the administration of the *Act*. *SARA* gives these Ministers the authority to make decisions in their areas of responsibility.

In particular, the following requirements of *SARA* are of potential importance in the context of the planning process through the Class EA:

- *Section 32:* It is an offence to kill, harm, harass, capture or take an individual of a wildlife species that is listed as Extirpated, Endangered or Threatened.
- *Section 33:* Prohibits damage or destruction to the residence of one or more individuals of a wildlife species that is listed as an endangered species or threatened species.
- *Section 58(1):* Prohibits the destruction of critical habitat of species at risk.
- *Section 79(1):* Every person who is required by or under an Act of Parliament to ensure that an assessment of the environmental effects of a project is conducted must, without delay, notify the competent minister or ministers in writing of the project if it is likely to affect a listed wildlife species or its critical habitat.
- *Section 79(2):* The person must identify the adverse effects of the project on the listed wildlife species and its critical habitat and, if the project is carried out, must ensure that measures are taken to avoid or lessen those effects and to monitor them. The measures must be taken in a way that is consistent with any applicable recovery strategy and action plans.

For materials on the methodology of determining whether adverse effects on listed wildlife species may be significant under the *CEA Act*, please see **Appendix C**.

5.2.6 Dominion Waterpower Act (Indian and Northern Affairs Canada)

For waterpower projects proposed on federal lands (e.g., Trent-Severn Waterway, Rideau Canal, Indian Reserves), the provisions of the *Dominion Waterpower Act* will generally apply. This legislation and the accompanying regulations provide for, among other things, the opportunity for the public to request a hearing to consider the project proposal. Specifically, the regulations stipulate that:

"(5) Where a protest or objection is filed within the period specified in subsection (4), or when for other reasons, the Minister considers that a hearing should take place before action is taken, he shall designate a time and place for the hearing and shall name a person to preside over and conduct the hearing."

While its is expected that the federal EA process will be applied to these projects, in situations involving both federal and provincial EAs, it is expected that the substantive objectives of such a hearing will have been satisfied though the evaluation, public involvement and reporting requirements of the Class EA process. Proponents are advised to determine as early as possible and with the assistance of MOE whether the *EA Act* and subsequently this Class EA applies to projects that have implications with or components on federal waterways.

5.3 Relationship of Projects within the Class EA to Other Provincial Legislation

A key objective of coordinating assessment and approval processes is to achieve an efficient process where information required for other approvals is identified at the beginning of a project, so that one program of data and information collection can be designed and carried out. As outlined in **Section 1**, **Table 1**, the planning and development of a waterpower project in Ontario can involve legislative requirements beyond EA. In many cases, such legislation has objectives and process requirements shared with the Class EA – providing for the consideration of the effect of the proposed project on the environment and ensuring that interested parties have an opportunity to participate. To the extent possible, the Class EA has been designed to allow for proponents to coordinate common process elements. As is the case with provincial/federal EA coordination, these can generally be described to include:

- Preparation of Project Descriptions;
- Communication;
- Scoping/Evaluation;
- Public Consultation;
- Technical Studies and Assessments; and
- Documentation.

Proponents with a plan that identifies the potential for requirements of other legislation specific to their project can determine which of these elements are most effective in satisfying those requirements. In addition to the legislation featured in this section, **Appendix C** includes a reference to the array of other legislative requirements that may be associated with a waterpower project.

5.3.1 Lakes and Rivers Improvement Act (Ministry of Natural Resources)

The *Lakes and Rivers Improvement Act* (*LRIA*) is an important piece of legislation of direct relevance to almost all waterpower facilities. Dams, diversions, works in water and improvements thereto are the key focus of the *Act*. The MNR administers the *Act*, and as such is the lead ministry for regulating siting, construction, operation and maintenance of dams.

The *LRIA* has broad purposes, as set out in Section 2 of the *LRIA*, including the:

- management, protection, preservation and use of the water of Ontario's lakes and rivers and the land under them;
- protection and equitable exercise of public rights in or over the waters of the lakes and rivers of Ontario;
- protection of the interests of riparian owners;
- management, perpetuation and use of the fish, wildlife and other natural resources dependent on the lakes and rivers;
- protection of the natural amenities of lakes and rivers and their shores and banks; and
- protection of persons and of property.

All new or redeveloped waterpower facilities that involve the construction of a dam or modification to a dam require approval under Section 14 or 16 of the *LRIA* (O. Reg. 454/96 sets out the projects that require approval under Sections 14 and 16). The requirements for approvals under the *LRIA* are summarized in **Table 4** and are described in detail in the Guidelines and Criteria for Approvals under the *LRIA* (see **Appendix C**).

Table 4 *Lakes and Rivers Improvement Act* Provisions

LRIA Approvals	Applicable Project types	Requirements
Section 14	New works	1. **Location Approval** ensures that in the location of the works, operational requirements/ constraints, flooding rights, mitigation to reduce impacts, compensation measures to address impacts and monitoring requirements have been identified to provide for the purposes of the *LRIA*.
		2. **Plans and Specifications Approval** ensures that the requirements identified during the location approval phase have been addressed and incorporated into the plans and specifications, including safe design, construction, operation and maintenance practices to provide for all of the purposes of the *Act*.
Section 16	Modification, alteration, improvement or repairs to existing works	A dam operating plan (DOP), as part of the plans and specifications approval, will address all flow and level conditions for the individual waterpower facility as a whole, as well as for each appurtenance and/or discharge facility under expected and possible adverse operating conditions. **Plans and Specifications Approval** (outlined above)

MNR has identified that an integrated project description that meets the requirements for consideration under Section 14 of the *LRIA* includes the following:

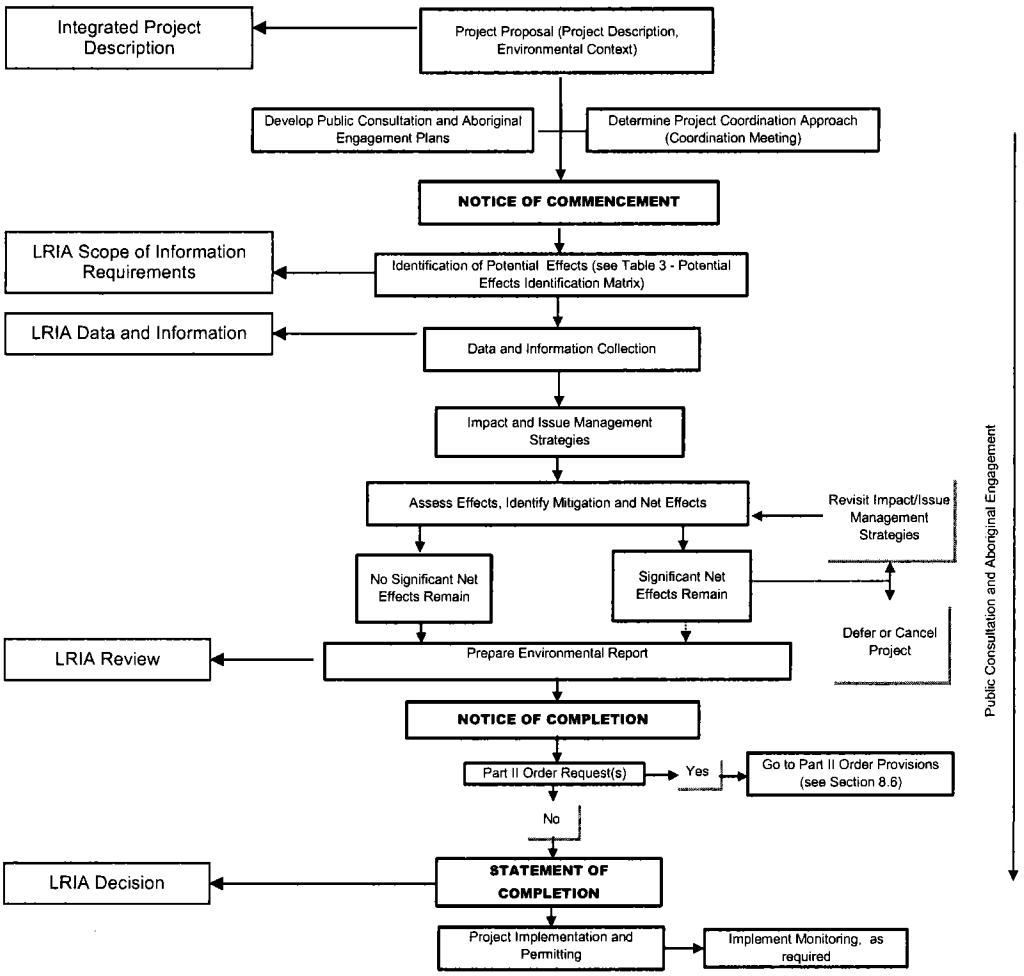
- Multi-Use Work Permit Application
- Basic stream information
- Ownership of work site
- Purpose of work
- Description of the work
- Temporary or permanent
- Specific project information (dam, water crossing, channelization, etc.)
- Quantity of water to he held
- Rate of flow of water that may be diverted
- Any other information deemed necessary to further the purposes of the *Act*

Figure 8 outlines the potential relationship between the Class EA and decision-making pursuant to the LRIA. Note that in most instances, projects undertaken at existing infrastructure may not require a location approval decision to be made (i.e., the structure is already there). In such instances, *LRIA* approvals may be restricted to Plans and Specifications. However, data and information collected and evaluations undertaken through the EA process can be used to support subsequent approvals.

Appendix C includes a reference to MNR's "Guide to Coordinated Approvals Processes" for Wind and Water Power Projects in Ontario.

In addition Section 23(1) of the *LRIA* provides for the Ministerial authority to require an owner of a dam to develop a "management plan" in accordance with approved guidelines. To date, this provision has been applied only to waterways with existing waterpower facilities. It is the expectation that a proponent using this Class EA will meet the intent of water management planning, as expressed through the resultant Dam Operating Plan and that Section 23(1) will be applied to confirm the water management compliance requirements under the LRIA for newly constructed facilities.

Figure 8 Incorporation of *LRIA* Requirements



5.3.2 Public Lands Act (Ministry of Natural Resources)

The *Public Lands Act* provides the legislative framework for, among other things, the disposition of rights to provincial Crown (public) lands. As the authority to develop and produce waterpower in Ontario is founded on a "riparian right" in common law, tenure to the beds and banks over which water flows is a legal requirement. MNR grants a short-term Crown lease during the construction of a waterpower facility and a long term rolling waterpower lease agreement for the occupation of the land by the capital works after construction. Ancillary tenure in the form of easements and/or land use permits may also be issued for other land occupation required (e.g., access roads). While registerable tenure (Crown Lease) is granted subsequent to the completion of the Class EA process, the proponent should have satisfied the appropriate requirements under relevant legislation related to the decision to dispose of Crown land. Applying the same conceptual framework as the integration of EA and *LRIA* requirements, the Statement of Completion under the Class EA should provide the basis for MNR to make a disposition decision.

5.3.3 Provincial Parks and Conservation Reserves Act (Ministry of Natural Resources)

The *Provincial Parks and Conservation Reserves Act* (*PPCRA*) generally prohibits electricity projects in provincial parks or conservation reserves (including waterpower), with the following exceptions:

- facilities located in a provincial park or conservation reserve that existed prior to the *Act*'s coming into force (2006) may continue to operate and be maintained and, with the approval of the Minister, may be improved, rebuilt or altered;
- facilities for the generation of electricity may be developed in provincial parks and conservation reserves for use within communities that are not connected to the IESO-controlled grid;
- facilities specifically identified in a Ministry land use plan before the site where the facility is to be located was regulated as part of a provincial park or conservation reserve; or
- facilities for use for provincial park or conservation reserve purposes.

As outlined in **Section 5.1.3**, the Class EA for Provincial Parks and Conservation Reserves includes specific provisions with respect to electricity projects planned within a provincial park or conservation reserve.

5.3.4 Endangered Species Act (Ministry of Natural Resources)

In 2007, the government of Ontario introduced a new *Endangered Species Act*. Compared to Ontario's previous legislation, the new act provides broader protection provisions for species at risk and their habitats, greater support for volunteer stewardship from private landowners and partners, a stronger commitment to recovery of species and more effective enforcement provisions.

Ontario's *Endangered Species Act*'s purpose is to:

- identify species at risk based on the best available scientific information, including information obtained from community knowledge and Aboriginal traditional knowledge;
- protect species that are at risk and their habitats, and to promote the recovery of species that are at risk; and
- promote stewardship activities to assist in the protection and recovery of species that are at risk.

The *Act* establishes a general prohibition against harming listed extirpated, endangered or threatened species and damage or destruction to their habitat. Habitat is broadly defined to include:

(a) with respect to a species of animal, plant or other organism for which a regulation is in force, the area prescribed by that regulation as the habitat of the species; or

(b) with respect to any other species of animal, plant or other organism, an area on which the species depends, directly or indirectly, to carry on its life processes, including life processes such as reproduction, rearing, hibernation, migration or feeding, and includes places in the area described in clause (a) or (b), whichever is applicable, that are used by members of the species as dens, nests, hibernacula or other residences.

The *Act* also includes a suite of "tools" (permits, agreements, regulation) that provide for the integration of human activities with the objectives of the legislation.

It is expected that listed species and their habitat and strategies (avoidance/prevention/mitigation/offsetting) to address these important values will be identified and addressed early in a waterpower project proposal and that, as relevant, such strategies will become key components of the approach to construction and planned facility operation. Further, as described in Section 5.3.1, Section 23(1) of the *LRIA* provides for the Ministerial authority to require an owner of a dam to develop a "management plan" in accordance with approved guidelines. It is the expectation that a proponent using this Class EA will meet the intent of water management planning, as expressed through the resultant Dam Operating Plan. As such, with respect to considerations of direct relevance to the purposes of the *Endangered Species Act*, the approved Water Management Plan will provide the basis for any ongoing monitoring, evaluation, assessment and actions specifically related to endangered species. Plans may also provide important contributions to broader species recovery plans and initiatives. As is the case with other "best practices," the OWA will provide proponents with state of the knowledge information through the suite of guidance included in or added to **Appendix C** of this Class EA.

5.3.5 Conservation Authorities Act (Ministry of Natural Resources)

Ontario's 36 Conservation Authorities are empowered by the *Conservation Authorities Act* to undertake programs to further the conservation, restoration, development and management of natural resources on a watershed basis. Under Section 28 of the Conservation Authorities Act and O. Reg. 97/04 "Development, Interference with Wetlands, and Alteration to Shorelines and Watercourses,' each Conservation Authority has an individual regulation approved by the Minister of Natural Resources. Section 28 regulations require CAs to grant permission (or not) for certain activities in and adjacent to watercourses (including valley lands), wetlands, shorelines of inland lakes and the Great Lakes-St. Lawrence River System, and hazardous lands.

Subsection 28(1) (b) speaks to "prohibiting, regulating or requiring the permission of the authority for straightening, changing, diverting or interfering in any way with the existing channel of a river, creek, stream or watercourse, or for changing or interfering in any way with a wetland."

Subsection 28(1)(c) speaks to "prohibiting, regulating, or requiring the permission of the authority for development if, in the opinion of the authority, the control of flooding, erosion, dynamic beaches or pollution or the conservation of land may be affected by the development."

Section 28(25) of the *Conservation Authorities Act* defines development as:

a) the construction, reconstruction, erection, or placing of a building or structure of any kind
b) any change to a building or structure that would have the effect of altering the use or potential use of the building or structure, increasing the size of the building or structure or increasing the number of dwelling units in the building or structure

c) site grading, or
d) the temporary or permanent placing, dumping, or removal of any material originating on the site or elsewhere.

A proponent should contact the local Conservation Authority for information on the application process early in the planning process.

5.3.6 Ontario Water Resources Act (Ministry of the Environment)

The *Ontario Water Resources Act* (*OWRA*) regulates the taking of water from wells or surface water sources and the treatment and disposal of sewage. The MOE administers this act and approval may consist of a certificate of approval and/or a Permit to Take Water (PTTW) depending on the proposed undertaking. Section 34 of the OWRA requires anyone taking more than a total of 50,000 litres of water in a day from a lake, stream, river or groundwater source, with some exceptions, to obtain a PTTW. A PTTW may be required during the construction phase of a facility.

In order to obtain a PTTW, a proponent must complete and submit to the MOE an application. While a permit is granted subsequent to the completion of the Class EA process, the proponent should have satisfied the appropriate environmental planning requirements related to the information required in such an application.

5.3.7 Clean Water Act (Ministry of the Environment)

The *Clean Water Act*'s intent is to ensure communities are able to protect their municipal drinking water supplies through developing collaborative, locally driven, science-based Source Water Protection Plans. Communities will identify potential risks to local water sources and take action to reduce or eliminate these risks. Should a project under this Class EA have the potential to impact municipal water supplies, consideration of the Source Water Protection Plan would be required. This potential would be expected to be identified early in the process (e.g., coordination meeting).

5.3.8 Ontario Heritage Act (Ministry of Culture)

The *EA Act* defines environment broadly to include cultural conditions that influence the life of humans or a community. Cultural heritage resources are important components of those cultural conditions. Therefore, a standard aspect of EA processes in Ontario involves assessing the effects an undertaking may have on known or suspected cultural heritage resources and addressing those effects.

The Ministry of Culture (MCL) is responsible for the administration of the *Ontario Heritage Act* and is responsible for determining policies and programs for the conservation of the cultural heritage of Ontario. Cultural heritage resources encompass buildings and structures of cultural heritage value or interest (built heritage), cultural heritage landscapes and archaeological resources, which include artifacts, archaeological sites and marine archaeological sites. The *Act* provides powers for cultural heritage resource identification and protection, the chief of which are heritage designation by municipalities and "automatic" protection for all archaeological sites. Additionally, the Minister of Culture may designate property that is of provincial heritage significance within any municipality or in unorganized territory.

MCL is responsible for licensing archaeological work in Ontario, including archaeological fieldwork required of proponents under the *Planning Act* and the *EA Act*. As a condition of their license, archaeologists must comply with the standards and guidelines established by MCL. The *Ontario Heritage Act* also enables MCL to develop standards and guidelines for the identification and protection of cultural heritage property owned or managed by the Crown or prescribed public bodies. Recent regulations under the *Ontario Heritage Act* set out the criteria for determining the value and significance of cultural heritage resources. If a potential heritage resource is present, the proponent should complete appropriate heritage assessments and evaluations to confirm the existence of heritage resources. Cultural heritage value or interest is determined through application of criteria found in Ontario Regulations 9/96 and 10/96 under the *Ontario Heritage Act*. Underlying the legislation are some basic principles. Cultural heritage resources should be identified and evaluated based on research and documentary evidence. Also, decisions that affect heritage resources should be made in an open, accountable way, taking into account the views of interested persons and communities. Assessment of the impact of proposed activities on the cultural heritage value of heritage resources should inform the decisions that may affect them.

As reflected in **Table 1**, the *Ontario Heritage Act* empowers municipalities and the provincial government to protect real property of cultural heritage value or interest. Across Ontario many properties of cultural heritage value have been identified and protected. However, many more are not clearly identified. Since waterpower projects may occur in areas of Ontario without municipal organization, it is important for proponents to recognize potential cultural heritage resources and attempt to address possible effects to them. For example, projects adjacent to a designated property, an Ontario Heritage Trust easement property or heritage conservation district may have cultural heritage value. Similarly, a cultural heritage landscape may be present when, for example, the project is within a designated Canadian Heritage River watershed.

Appendix A includes the definition of some important heritage terms. Advice on approaches to mitigation is included in **Appendix B**. Information on approaches to considering cultural heritage through the Class EA process is referenced in **Appendix C**. Consistent with the commitment to continuous improvement, the OWA will pursue opportunities to develop and/or support best practices specific to waterpower and cultural heritage resources.

6.0 EFFECTIVE PUBLIC INVOLVEMENT

Early and meaningful engagement of representative interests and publics that may be affected by or have an interest in the project is prudent business practice and a critical element of achieving the intent of the Class EA. The purpose of public consultation is to provide those who may wish to participate the opportunity to contribute and inform decisions relating to a project. It provides the proponent with the opportunity to gain information and knowledge related to social, cultural, economic and environmental considerations of direct relevance to the project as well as the means to inform and explain the approach to and value of the proposal. Proponents are expected to design and implement their consultation activities considerate of the context (e.g., geography, timing) most relevant to the proposal. In practice, this can mean project-specific approaches to notification and involvement.

This section provides:

- A general outline of the role of consultation for an undertaking subject to this Class EA; and
- Consultation principles and a summary of consultation techniques that may be employed to ensure the objectives of consultation are met.

6.1 Legislated Requirements for Public Consultation

Proponents are required to consult with the public as part of the planning process for any undertaking subject to the *EA Act*. The proponent must document the consultation approach that was employed as well as the results of the consultation and how the input and advice was considered.

6.1.1 Mandatory Consultation Requirements

This section discusses the mandatory notification requirements for the project categorizations discussed in **Section 3**. The mandatory points of contact for a project associated with existing infrastructure include:

- Notice of Commencement;
- Notice of Completion (to those who either responded to the Notice of Commencement or have otherwise expressed an interest in the project to the proponent); and
- Statement of Completion.

The mandatory points of contact for a project on a managed waterway include:

- Notice of Commencement;
- Notice of Completion; and
- Statement of Completion.

The mandatory points of contact for project on an unmanaged waterway include:

- Notice of Commencement;
- Notice of Inspection (to those who either responded to the Notice of Commencement or have otherwise expressed an interest in the project to the proponent);
- Notice of Completion; and
- Statement of Completion.

6.2 Creating a Public Consultation Process or Plan

A proponent should consider the following when designing a consultation process or plan:

- A schedule of consultation events;
- The consultation methods to be used at each step and the rationale for their use;
- The scope of information to be provided and messages to be conveyed;
- The flexibility to accommodate unforeseen needs;
- How concerns will be considered and inform the project;

- The documentation of consultation efforts and outcomes; and
- The application of the Class EA consultation process to other legislative requirements and approvals.

6.2.1 Public Consultation Principles

Effective engagement and participation is premised on commonly-held principles of the EA process. These core principles include:

- *Mutual Respect*
  - for differing values
  - for differing roles in environmentally responsible development
  - for timelines
  - for each parties' constraints

- *Clarity*
  - of purpose and objectives
  - of how, when and which decisions can be influenced and those decisions that cannot
  - of mandates and/or stake in the development of the project
  - of how information will be used or may be used during the planning of the project
  - of how participants can be engaged

- *Transparency*
  - sufficient information for meaningful and constructive participation and consideration of values
  - how participation informs the outcome of and the final decisions for the project

- *Flexibility*
  - adaptive participation programs to address the public's ability to be involved
  - considerate of the ability of participants, to the extent practical, to contribute to the development of the timelines and specifics of how the process will be executed
  - translation of publications and information to local languages, as appropriate

- *Trust*
  - that all have a vested interest in ensuring the sustainable development and use of Ontario's waterpower resources
  - that information gathered will not be used as a means of penalizing the people who provided it
  - that there will be follow-through on commitments made

- *Certainty*
  - a defined beginning and end to the process
  - use of a single coordinated process

6.2.2 Consultation Approaches

In preparing for public consultation, proponents of projects under the Class EA should consider the following approaches:

- *Broad initial identification of probable and potential interests*

  Interests in waterpower projects will be those who are most likely to be affected by, or concerned with, the proposed project and are likely to include the public, riparian right holders, local interest groups, local community members and government agencies. At the initial stage of the proposal, it is important to cast the net of engagement as wide as is practical relative to the nature and scope of the proposal.

- *Early engagement*

  Consultation should be initiated as early in the process as possible. Bringing together all relevant viewpoints at the earliest opportunity is more likely to ensure that all potential concerns are identified. Early consultation also ensures that people's values, concerns and interests are built into the development of plans and projects from the point of inception. A lack of contact in the initial stages can lead to a loss of confidence in the process among the parties that are not informed about the project until significant decisions have been made.

- *Variety in participatory techniques*
  A range of opportunities for public participation in the Class EA process will optimize the potential for all interested parties to provide input. Techniques should be chosen according to the purpose of the engagement, the audience and the desired outcomes.

- *Adequate provision of information*
  Provision of good quality background information regarding the project is essential to ensuring good levels of understanding amongst participants. Information should be provided so that parties can provide constructive input. Consultation materials should be provided in plain language and where additional material is of value, it should be provided in a timely manner.

- *Ongoing dialogue*
  A key objective of early engagement of probable and potential interests is to determine those for whom the project is of specific relevance or importance. Ongoing dialogue with these interests can augment the mandatory notice opportunities and facilitate more informed involvement.

6.2.3 Notification Techniques

There are a number of ways that a proponent may notify the public about the characteristics of a waterpower development project. As the mandatory component of consultation, notices are critical to achieving effective and efficient engagement both for the proponent and the public. Notices allow the proponent to disseminate information regarding the project to a wide range of participants. This section summarizes some of the methods that can be used to provide notification of project activities. The list is not intended to be an either/or approach, nor is it presumed to be all-inclusive.

- *Newspaper Advertisements*
  Newspaper advertisements are one means to provide broad formal notice. The amount of information contained in these advertisements will be limited, but all the necessary information must be included. The proponent must be clear and concise in conveying the intended message. Newspapers selected should be related to the potential geographic extent of interest.

- *Direct Mail*
  Mail outs are typically used to provide information on a project because they ensure a uniform provision of information to a known list of potential interests, or a group of people within a given geographic area. Mail can also be used as a means to provide individual responses to members of the public who have expressed interest in the project. Mailings can convey large amounts of information, including reports. Contact information should always be provided for those who may want to respond to the information being sent out.

- *Internet and email*
  A project website is an efficient way to post information regarding the status of the project as it becomes available. Copies of reports and useful background information can be readily accessed and easily obtained from an Internet site. Proponents will also be provided the option of having project notifications posted on the OWA website. Email correspondence enables a quick turnaround time for information sharing. The proponent should be aware that some members of the public may not have access to a computer. The use of electronic communications should primarily be used to complement other consultation techniques.

- *Newsletters*
  Project newsletters can be used to keep interested members of the public updated as to the status of the project. Newsletter distribution can be designed so as to focus on expressed interests in the project, allowing for the provision of more detailed information to an already engaged and informed public.

- *Local Cable TV*
  Local Cable TV, where available, can be an effective means of notifying a wide community of potential interest.

6.2.4 Consultation Techniques

This section summarizes some of the methods that can be used to stimulate active consultation.

- *Public Information Centres*
  A Public Information Centre (PIC) is a way to provide the public with information on the project with display boards, posters, interactive displays, surveys, etc., and to immediately respond to any concerns that may arise. PICs can include presentations followed by a "question and answer session."

  PICs should be held at an appropriate venue in the community closest to the project location. The venue should be easily accessible for interested parties to attend. Proponents (and support staff) should be on site to answer any questions an interested party may have.

- *Meetings/Workshops*
  Smaller, focused meetings with specific stakeholders may be more successful for resolving contentious issues associated with an undertaking. Proponents should arrange meetings on an as-needed basis to discuss any concerns related to the project.

- *Comment Cards*
  Comment cards are typically distributed at a PIC where members of the public can submit concerns and opinions directly to the proponent, or bring them home and mail them to the proponent after the event. Comments cards can be structured in a way so that the proponent can determine on a larger scale what the most common concerns about a project may be.

Attention should be paid to the format of the comment card, to ensure that relevant information is obtained without using questions that are too narrow and that may influence a response. The comment card should be formatted so an interested party can include their address for potential follow-up.

- *Site Visits*
  Site visits enable the proponent to discuss any concerns a party may have in person. This allows the proponent to fully understand any issues a concerned party may have and address these issues accordingly.

- *Direct Correspondence*
  Parties may also be invited to submit written comments on the project by using mail, fax or email. Responses should be acknowledged within a reasonable time period.

- *Advisory Committees*
  In some instances, there may be value in developing a cohesive group of local stakeholders who are representative of the varied interests in the project, particularly in situations where there may be public values and expectations that may be in conflict with one another.

- *Draft Reports*
  At its discretion, the proponent may elect to issue draft reports (e.g., technical studies and/or ER) to all or a subset of project stakeholders. This may be done to facilitate enhanced understanding of the project, or to provide additional opportunities to review and comment on project documentation before it is finalized.

6.3 Documentation

A key element of satisfying the requirements of the Class EA process is documentation of the approaches applied and outcome of public engagement. In support of the Notice of Completion, the ER must summarize:

- the consultation process;
- the participants to the process;
- how advice and input was considered; and
- how the advice and input affected the project proposal.

As described in **Section 4.5.1**, additional consultation undertaken following the issuance of the Notice of Completion should be documented and summarized prior to issuance of the Statement of Completion.

7.0 ENGAGING AND INVOLVING ABORIGINAL COMMUNITIES

7.1 Aboriginal Interests

Aboriginal communities are expected to have a range of views to offer and contribute. Some communities are interested in the economic opportunities that a waterpower project, as a form of renewable energy, can offer. Others may have concerns with the potential impact of project on their traditional uses of land, water and resources. Engagement may take on different forms in each community, depending on both the scope of the project and the interests of the community. The common thread with respect to Aboriginal interests and waterpower development is the need for openness and inclusiveness. It is important to be aware of the potential impacts that environmental change can have on Aboriginal communities. In many cases, activities that affect the environment will also affect the ability of communities to exercise their Aboriginal and Treaty rights to use the land and its resources, and may also have far-reaching economic, social and cultural effects. Thus, it is important that the rights and concerns of Aboriginal communities are acknowledged during the planning of waterpower projects.

Aboriginal communities include First Nations communities, whether recognized under the *Indian Act* or not, and Métis communities.

Proponents are expected to involve Aboriginal communities who may be directly affected by, or have an interest in, the development of a waterpower project and to develop an engagement approach specific to these interests. When considering which Aboriginal communities to contact, proponents should be mindful that the traditional territories, treaty areas, or areas of claims involving Aboriginal or treaty rights of some Aboriginal communities are extensive.

Proponents should also be mindful of the need to communicate with both the formal leadership of an Aboriginal community as well as others who may represent the interests of that community. For example, in some communities, there may be both an elected Band Council as well as a traditional council. Sometimes it may also be appropriate to discuss the project with the whole community.

As noted in **Section 4.1.3**, some project proposals may have been developed with the involvement of Aboriginal communities prior to commencing the EA, and the Class EA will be informed by the relationships with Aboriginal communities that have already been established. Proponents should be aware that the Crown undertakes consultation with Aboriginal communities in the course of different regulatory processes, including MNR's Site Release and Development Review process, some planning approvals processes, and processes put in place by the Ontario Power Authority ("OPA"), as appropriate. To the extent possible, consultation under these processes should be coordinated and harmonized with consultation under the Class EA. In addition, before distributing the Notice of Commencement for a project, proponents shall contact the Director of the EAAB for a list of bodies (such as the Ministry of Energy and Infrastructure, for certain OPA-procured projects), that would be able to assist in identifying Aboriginal communities that may be interested in the project.

Aboriginal engagement and involvement is intended to allow the proponent to identify and consider the concerns and issues of Aboriginal communities and to provide those communities with an opportunity to receive information about and have meaningful input to the project proposal. Some possible considerations for the design and implementation of a participation program specific to Aboriginal communities may include:

- The local language;
- Physical and electronic accessibility of communities;
- Governance structures;

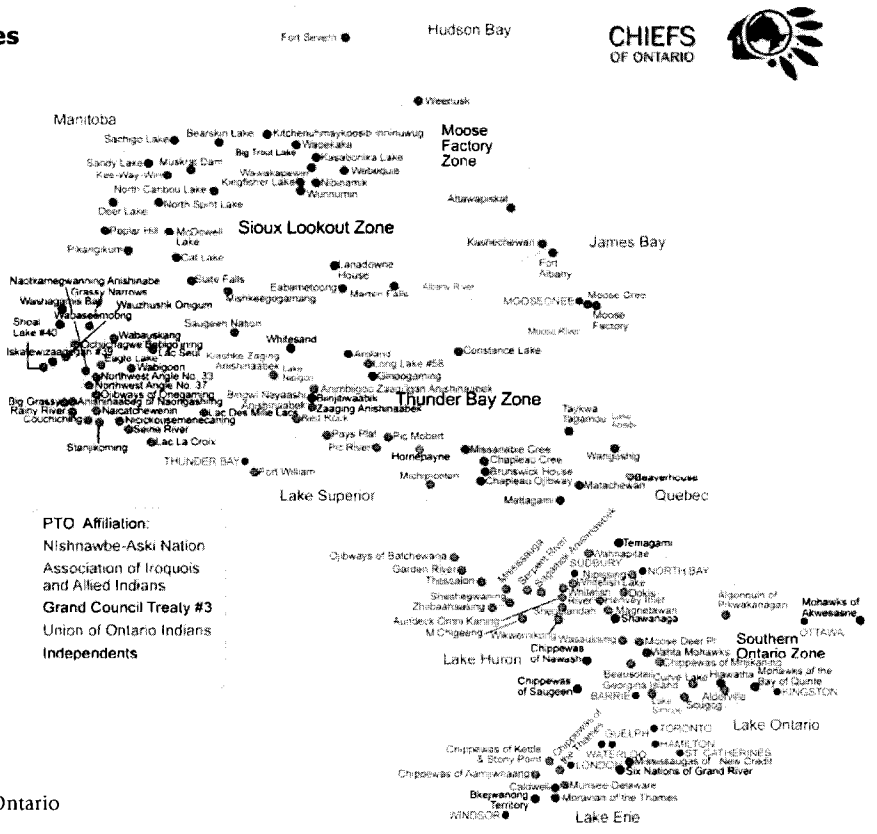
- Differing decision-making structures than found in provincial, federal and municipal agencies and potentially between Aboriginal communities themselves;
- Consultation protocols established between federal, provincial and municipal agencies and Aboriginal communities;
- The particular role of women with respect to water in many Aboriginal cultures;
- Relationships between Aboriginal communities; and,
- The unique values, traditions and interests of each Aboriginal community.

In addition, it should be noted that the Aboriginal community may wish to:

- Work solely with government(s);
- Work directly with the proponent; and/or,
- Work with the government and proponents simultaneously.

Figure 9, courtesy of the Chiefs of Ontario provides an example of an overview of the First Nations Communities in Ontario and their Provincial Treaty Organization affiliation, if any.[1] Additional information sources and contact information for First Nations Communities, Tribal Councils and Treaty Organizations is available from the OWA, as referenced in **Appendix C**.

Figure 9 –
First Nations Communities in Ontario



1. For updates, check the Chiefs of Ontario website at *www.chiefs-of-ontario.org*.

Many Aboriginal communities, tribal councils and provincial territorial organizations have their own websites where information about their communities may be found. Information on Aboriginal and Métis communities may also be found on the Ontario Ministry of Aboriginal Affairs and the Indian and Northern Affairs Canada websites.

7.2 Aboriginal Traditional Knowledge

Many of the activities related to EA involve environmental studies and environmental data collection. Aboriginal peoples have the potential to make important contributions in this area. Aboriginal Traditional Knowledge (ATK) can also be referred to as "traditional knowledge," "indigenous knowledge," or "naturalized knowledge." ATK usually refers to those indigenous systems of knowledge, as well as cultural practices and methodologies related to the production of knowledge based on traditional belief systems, relationships to the environment, and community practices. It is the accumulated and living knowledge possessing a depth and breadth of information built upon the historic experiences of peoples living on the land and adapts to social, economic, environmental, spiritual and political change. It can have particular value in understanding species, ecosystems, sustainable management, conservation and wise use. It comprises a deep understanding of complex interrelationships between individual environment components, the dynamics of local ecosystems and the peoples that live in them. ATK is often used to denote systems which may differ from western approaches to science and knowledge. Much of this knowledge may be orally transmitted, and it may be considered sacred, thus it is important that ATK as well as community attitudes and desires regarding the use of ATK be treated with the utmost respect.

7.3 The Crown's Duty to Consult

Some waterpower projects may affect Aboriginal communities who hold or claim Aboriginal or treaty rights, or lands that may be subject to a land claim. Any project that interferes with or infringes on the exercise of these rights or potential rights may result in a duty to consult on the part of the Crown. Nothing in the Class EA is intended to alter or detract from any obligation the Crown may have to consult with Aboriginal communities in light of the protection provided for the existing Aboriginal and treaty rights of the Aboriginal peoples of Canada as recognized and affirmed in Section 35 of the *Constitution Act*, 1982. Although the ultimate responsibility for fulfillment of the Crown's duty to consult and accommodate rests with the Crown, the Crown may delegate certain procedural aspects of consultation to proponents.

The Crown has a duty to consult with and accommodate Aboriginal communities when it has knowledge, real or constructive, of the existence or potential existence of an Aboriginal or treaty right and contemplates conduct that might adversely affect it.

During the consultation and engagement process with Aboriginal communities, it may be determined that the proposed Class EA project may potentially adversely affect an existing or asserted Aboriginal or treaty right protected under Section 35 of the *Constitution Act*, 1982 and that the Crown has a legal duty to consult.

The Class EA is not intended to fully describe how any duty to consult on the part of the Crown, if it is triggered, may be discharged. However, the Crown may delegate the procedural aspects of consultation to proponents and recognizes a corresponding responsibility of Aboriginal communities to participate in the process, make their concerns known and respond to efforts to address their concerns. Respective roles and responsibilities for engaging Aboriginal communities should be discussed prior to or at the initial proponent-agency coordination meeting and throughout the Class EA process.

If an Aboriginal community has asserted that the Crown has a duty to consult based on the potential adverse effects on an Aboriginal or treaty right during the course of engagement about the potential effects of the Class EA project, the proponent should notify the Director of the EAAB.

Proponents can assist the MOE by providing the list of the Aboriginal communities that have been engaged and details of what has transpired to date between the proponent and the Aboriginal community(ies). The MOE will determine whether additional consultation is required or whether additional Aboriginal communities should be consulted. The Director may request that the proponent seek and provide further particulars of the assertion where appropriate.

When the duty to consult has been engaged, all parties should realize that:

- The nature, scope, and content of the duty to consult and accommodate varies with the circumstances;
- Meaningful consultation requires the Crown to listen with an open mind to what the Aboriginal communities have to say;
- Consultation may oblige the proponent to make changes to its proposed project based on information obtained;
- Accommodation requires a process of balancing interests; and
- Responsiveness is a key element of both consultation and accommodation.

8.0 CLASS EA ADMINISTRATIVE PRACTICES AND PROCEDURES

8.1 Compliance Monitoring Program for the Class EA

The OWA will be responsible for monitoring the implementation of this Class EA to ensure that it is satisfying its purpose and that it remains relevant and current. Where feasible, the OWA will identify areas for improvement that would enhance the effectiveness of the Class EA.

To monitor the progress and experience arising from the implementation of this Class EA, the OWA will:

- Retain Notices of Commencement and Statements of Completion provided to the OWA by project proponents; and
- Submit annual reports to the Director of the EAAB for projects initiated, planned and implemented during the previous year. Annual reports will be submitted to the Director for placement on the Public Record. The annual report will include, as a minimum:
  - A statement of whether the Class EA document is providing an effective and efficient planning process for protecting the environment.
  - Identification of any changes to the Class EA that would serve to improve the Class EA itself or its administration.
  - Identification of any common problems experienced with Class EA projects that may suggest the need for amendment.
  - A summary table listing of all projects known by the OWA to have been carried out following the Class EA document and a breakdown by project type. The summary table shall include the following information:
    - Name and brief description of the undertaking;
    - Name of the contact person;
    - Location of the undertaking;
    - The date undertakings were started; and
    - EA Project status.

8.2 Amendments to this Class EA

The OWA or any other party may submit written requests for amendments to the Class EA to the Director of the EAAB (for minor amendments), or to the Minister of the Environment (for major amendments). An outside party should consult with the President, Ontario Waterpower Association before submitting a proposed amendment, and should also provide the President with a copy of the proposed amendment. Proposals must set out the specific concern or issue being addressed, the reason for the proposal and the proposed amendment. The Minister of the Environment may require that consideration of a major or minor amendment be deferred for consideration as part of a five-year review, as described in **Section 8.3**. Upon approval, minor and major amendments would be appended to this Class EA, or consolidated into the written text. A master copy of the Class EA will be held at the OWA office and a copy will be provided on the OWA website (*www.owa.ca*). A copy will also be maintained by the EAAB for the public record.

8.2.1 Minor Amendments

Minor amendments are those amendments that would not substantially change the Class EA. These may include administrative corrections and clarifications, minor updates (e.g., reference to a guideline) and changes to procedures that, in the opinion of the Director of the EAAB do not affect the intent of the Class EA. Extending the Class EA approval period would also be considered a minor amendment.

Again, the OWA will consider aligning the Class EA project categorizations with any future changes to the Electricity Projects Regulation, as applied to waterpower developments and/or transmission infrastructure. Such changes would generally be considered a minor amendment to this Class EA.

The following process will be used for proposed minor amendments:

Minor amendments proposed by the OWA:

1. The OWA will notify the Director of the EAAB of the proposed amendment, provide the Director with the description and rationale for the amendment.
2. The Director of the EAAB will reach an opinion as to whether or not the proposed amendment is valid, and confirm whether it is minor within 30 days of receiving the request.
3. The Director shall provide notice of the decision to the OWA. The Director must also state reasons for the decision.

Minor amendments proposed by another party:

1. A party will bring the proposed amendments in writing to the attention of the President of the OWA, describing the proposed amendment and rationale for the amendment.
2. The OWA will notify the Director of the EAAB of the proposed amendment, provide the Director with the requesting party's description and rationale for the amendment, and the OWA's comments and opinion in response to the proposed amendment.
3. The Director of the EAAB will reach an opinion as to whether or not the proposed amendment is valid, and confirm whether it is minor within 30 days of receiving the request.
4. The Director shall provide notice of the decision to the OWA and the requesting party. The Director must also state reasons for the decision.

Given the limited scope and administrative nature of minor amendments to this Class EA, they will be approved through an abbreviated process that will not require public notice.

8.2.2 Major Amendments

Major amendments would substantially change this Class EA or have a significant effect on how the Class EA is carried out. As such, proposals for major amendments are required to be submitted by the applicant (OWA). This could include changes to:

- The range and type of projects within the class or the assignment of projects to categories.
- The essential elements of the categorization processes, and the provisions found in this section of the Class EA.
- Mandatory public notification procedures or timelines.

Other parties may request a major amendment by submitting such a request to the OWA for consideration. The following process will be used for proposed major amendments:

1. Prior to submitting a request for an amendment, the OWA will assess whether the proposal has material relevance for interested parties, agencies and aboriginal communities. Based on this assessment, the OWA may seek input and advice from these interests prior to submitting the amendment request.
2. The OWA will notify the Director of the EAAB of the proposed amendment, provide the Director with the description and rationale for the amendment,
3. If the proposed amendment is considered to be valid and major and, in the opinion of the Director of the EAAB, the proposed amendment is reasonable and appropriate, a consultation period of 45 days shall be carried out by the OWA in a manner that is to be determined by the Director. Interested parties will be invited to submit comments to the Director of the EAAB copied to OWA.
4. Based on any input received during the 45-day review and further consultation with the OWA, the Minister or delegate will approve or deny the amendment, with or without conditions, within 60 days after the deadline for comments.

5. A notice of the decision, including reasons for the decision, shall be provided to those who submitted comments or indicated interest in the amendment, and if the Minister or delegate determines, additional public notice shall be given by the OWA.

8.3 Five Year Review of this Class EA

A review of the Class EA will be submitted by the end of the calendar year five calendar years after the year in which the Class EA is approved, and every five years thereafter. The review will consider the efficiency and effectiveness of the Class EA planning process, assess new legislative requirements and evaluate best practices of direct relevance to waterpower projects. The OWA will provide, by letter, to the Director of the EAAB the results of the review. This review will also include a summary of issues and amendments that arose during the review period, and an account of how the issues and amendments that have been or will be addressed, for approval by the Director of the EAAB. Any revisions, additions, or updates can be made using the amending procedure described in **Section 8.2**.

8.4 Urgent Situation Provisions

Though very unlikely to involve new capacity, situations may develop where there is a threat or potential threat to human life or safety, property, public service, or the environment. Examples of urgent situations include flooding, erosion, or collapse of a structure. In these situations, the proponent may proceed with actions that would otherwise be subject to the processes under this Class EA. Should this occur, the proponent will provide notice to the Director of the EAAB within 30 days of the commencement of action taken, containing the following information:

- The location and nature of the situation;
- The effects of the situation;
- Actions taken to resolve the situation and the effects of the actions;
- The effectiveness of the actions; and
- Anticipated future remedial works and monitoring, if any.

These provisions are not intended to apply to the construction of new facilities.

Note also that projects that are in response to an emergency, as is defined in the *CEA Act*, are excluded from requiring a federal EA. This determination will be made by the appropriate federal department.

8.5 Transition Provisions

Some waterpower projects that would be considered within the class of undertakings may be in progress using the environmental screening process pursuant to the Electricity Projects Regulation on the date of approval of the Class EA. Projects for which a Notice of Commencement has been issued are considered to be in progress. In order to ensure a smooth transition between previous requirements and those of the new Class EA, this Class EA offers the following transition provision. Where a project is the subject of Ontario Regulation 116/01 – Electricity Projects (2001) and would be covered by this Class EA, the project should, in most cases, continue under the environmental screening process if the Notice of Commencement has been issued.

The option of completing the remaining process through the provisions of the Class EA may be available if the proponent so chooses and through discussion with the Director of the EAAB. The proponent seeking to transition to this Class EA is required to notify the OWA and the Director of the EAAB, as well as the MOE Regional EA Coordinator of the desire to transition into this Class EA and the rationale therefore in writing. The Director of the EAAB may stipulate any requirements for the proponent to notify interested persons of the transition. In most circumstances, the proponent shall be required to provide notice to all participants in the environmental screening process that it is planning to transition to this Class EA. The proponent will then be required to comply with the provisions of this Class EA. This requires the proponent to ensure that work it has already undertaken through the environmental screening process is incorporated into the Class EA documentation required under this Class EA.

If a proponent has filed its Statement of Completion under the environmental screening process and later wishes to prepare an addendum, the proponent may use the addendum provisions in this Class EA at the discretion of the Director of the EAAB. A proponent seeking to use this provision is required to notify the OWA and the Director of the EAAB, as well as the MOE Regional EA Coordinator of the desire to transition into this Class EA and the rationale therefore in writing. The Director of the EAAB may stipulate any requirements for the proponent to notify interested persons of the proposed addendum.

If the Notice of Commencement has not been issued, projects that are covered by this Class EA must follow the Class EA process.

8.6 Part II Order Provisions

If an interested party is not satisfied with a project assessment and the evaluation process, and/or the proponent's response to concerns expressed during the Notice of Completion period, they can request that the Minister of the Environment or his/her delegate require that an individual EA be prepared for the project. A request for a Part II Order for a project must be submitted to the MOE and a copy sent to the proponent within the 30-day review period after the Notice of Completion of the ER has been issued. In most circumstances, Part II Order requests made before the 30-day review period will be considered to be premature. This is because later stages of the Class EA planning process typically provide opportunities for interested persons to raise concerns and the proponent to attempt to address and resolve them.

Part II Order provisions are applied if there is a concern that the process for a project under this Class EA is insufficient to address public concerns, or if there are significant remaining concerns regarding the characteristics and effects of the project.

A Part II Order request should be:

- A way in which the proponent, an interested person or government agency with a serious concern about the potential effects to the environment of a proposed Class EA project can request that the Minister of the Environment or his/her delegate require that an individual EA be prepared for the project.

A Part II Order request should not be:

- A mechanism to stop, delay or frustrate the planning and implementation of a Class EA project.
- A mechanism to revisit issues with which the requester does not agree and that have already been dealt with through another planning process such as Official Plans, Growth Plans, Integrated Power System Plans, Land Use Plans and Master Plans.
- A mechanism to be used simply because the project is not desired in a community.
- A means to resolve issues that can be dealt with through other methods such as permits, licenses or other planning processes.
- A mechanism to deal with broad policy issues that do not have government policy direction and are not directly related to the proposed Class EA project.

8.6.1 Initiating a Part II Order Request

The procedure for initiating a Part II Order request is as follows:

Preliminary Stages

1. The interested person(s) with a concern about a Class EA project brings the concern to the attention of the proponent as early as possible in the Class EA process.

2. If the concern cannot be resolved by the proponent, the interested person may make a request directly to the proponent that the project be subject to an individual EA. The proponent will provide a copy of the request to the Minister of the Environment or delegate.

The resolution of concerns directly between the proponent and the party raising the concern is always preferable. When outstanding environmental concerns are raised during the 30-day ER review period (Notice of Completion), the proponent should be prepared to attempt to resolve the concerns. Where a commitment is made by a proponent to address concerns raised during the review period, the commitment must be documented by the proponent and filed with the final ER (Statement of Completion). The proponent is required to fulfill any such commitments in the implementation of the project. If additional time is needed to try to resolve issues, the proponent and the concerned party may agree to continue discussions for a mutually acceptable specified time period beyond the 30-day review period. The proponent shall notify the Director of the EAAB that it and the concerned party have agreed to continue discussions, and what the specified time period is. Following the specified time period, if the issues remain unresolved, a Part II Order request can be made to the Minister of the Environment or delegate within a further seven days.

Requesting that the MOE make a Part II Order

3. If the proponent decides not to subject the project to an individual EA, and the interested person(s) wish to pursue the matter, they may request that the Minister of the Environment or his/her delegate make a Part II Order. Such requests are to be directed to the Minister or delegate with a copy to the proponent.

4. A Part II Order request will be considered by the MOE only after the following:
   a. The proponent has issued a Notice of Completion; and
   b. The proponent has indicated to MOE that they cannot resolve the request themselves (Step 2 above).

8.6.2 Part II Order Request Requirements

In addition to making the request a request for a Part II Order, the submission should specify:

- That a Part II Order Request is being made;
- The name of the project and proponent;
- The nature of any specific concerns that remain unresolved, and actions other than a Part II Order that might resolve these concerns;
- The specific nature of the concerns on which the request is based;
- Information about any efforts to discuss/resolve these concerns/effects to the environment with the proponent;
- The adequacy of the planning and public consultation process conducted under this Class EA, and the proponent's response to concerns and submissions;
- The involvement of the person or agency making the request in the Class EA process, and details of any previous discussions held with the proponent;
- Why the project would be more appropriately considered under the Part II Order provisions and the benefits that would result;

- Any factors suggesting that the proposed project differs from other projects subject to this Class EA, and the significance of these factors and differences; and,
- Any other information that the interested party may feel is relevant to assist the MOE in making a decision.

The submitter shall copy the Part II Order request to the proponent.

8.6.3 Early Resolution

Once a formal Part II Order request has been made, the proponent should consider the potential benefit of resuming (or initiating) discussions with the interested party(ies) and may request their involvement in some form of alternate dispute resolution. If there is potential for progress in resolving the concerns raised the proponent and the interested party may agree to advise the Director, EAAB, in writing and request a deferral the review of the Part II Order request to allow adequate time so that further discussion may take place prior to a final decision. The proponent and the interested party will provide MOE with a written account and outcome of the discussion and whether the Part II Order request is confirmed or withdrawn. In turn, MOE will acknowledge the same, in writing, with the interested party and the proponent. Such initiatives are the responsibility of the proponent and the interested party. Appendix C includes a reference to the use of mediation in helping to resolve potential issues. When, following a request having been made, the requester's concerns have been addressed by the proponent, the requester is responsible for withdrawing the Part II Order request. Written notice of withdrawals must be made in writing to the Director of the EAAB, and must be copied to the proponent. Where commitments are made by a proponent to address a requester's concern, the commitment must be documented by the proponent and filed with the proponent's copy of the ER. A copy of the documented commitment must also be sent to the Director of the EAAB. The proponent is required to fulfill any such commitments in the implementation of the project.

8.6.4 MOE Consideration of the Request

Upon receipt of the Part II Order request, the MOE may request the proponent to provide a copy of any relevant project documentation and the proponent shall provide the information to the EAAB. The proponent shall forward a copy of the ER, and any other relevant project documentation within 15 days to the Director of the EAAB. The proponent may make a submission to the Director addressing the issues raised in the Part II Order request and/or request a longer period of time to make a submission. MOE's review period will commence upon receipt of the necessary information from the proponent. Part II Order requests that are clearly made with the intent of delaying a project, are frivolous or vexatious or which contain insufficient information may be denied.

MOE will consider the views of the proponent and the requester(s) and may consult other government agencies before making a decision. In making a decision, MOE will consider the following, based on the matters set out under subsection 16 (4) of the *EA Act*:

1. The purpose of the *EA Act*.
2. The factors suggesting that the proposed undertaking differs from other undertakings in the class to which the class environmental assessment applies.
3. The significance of the factors and of the differences mentioned in paragraph 2.
4. Any reasons given by a person who requests the order.
5. The mediators' report, if any, following a referral under subsection (6).
6. Such other matters as may be prescribed.
7. Such other matters as the Minister considers appropriate.

8.6.5 MOE Decision

When a Part II Order request is not deemed premature, the MOE will consider the views of the proponent, the requester(s) and any government agencies the MOE chooses to consult before making a decision. MOE will also consider the evaluation criteria for Part II Order requests found in Section 16(4) of the *EA Act*.

Within 45 days of receiving all necessary information from the proponent, the Minister or his/her delegate will decide to do one of the following things:

i) Make a Part II Order;
ii) Deny the Part II Order request with or without conditions;
iii) Refer the Part II Order request to mediation before making a decision; or
(iv) Advise the proponent to redo its project planning where there is evidence that the project documentation not been prepared in accordance with the Class EA.

There may be instances where the Minister or delegate is not able to make a decision within 45 days. Where this is the case, a subsequent decision will not be considered invalid on the grounds that it was made after 45 days. If none of the above four options has been determined after 45 days, the proponent is entitled to proceed with the project. Before proceeding, proponents will confirm with the EAAB that no decision has been made on the Part II Order request. The proponent may also inquire as to the timeframe within which a decision can be expected. Should the proponent proceed after 45 days, it should recognize that it is doing so at its own risk, as a Part II Order could still be made or denied with conditions.

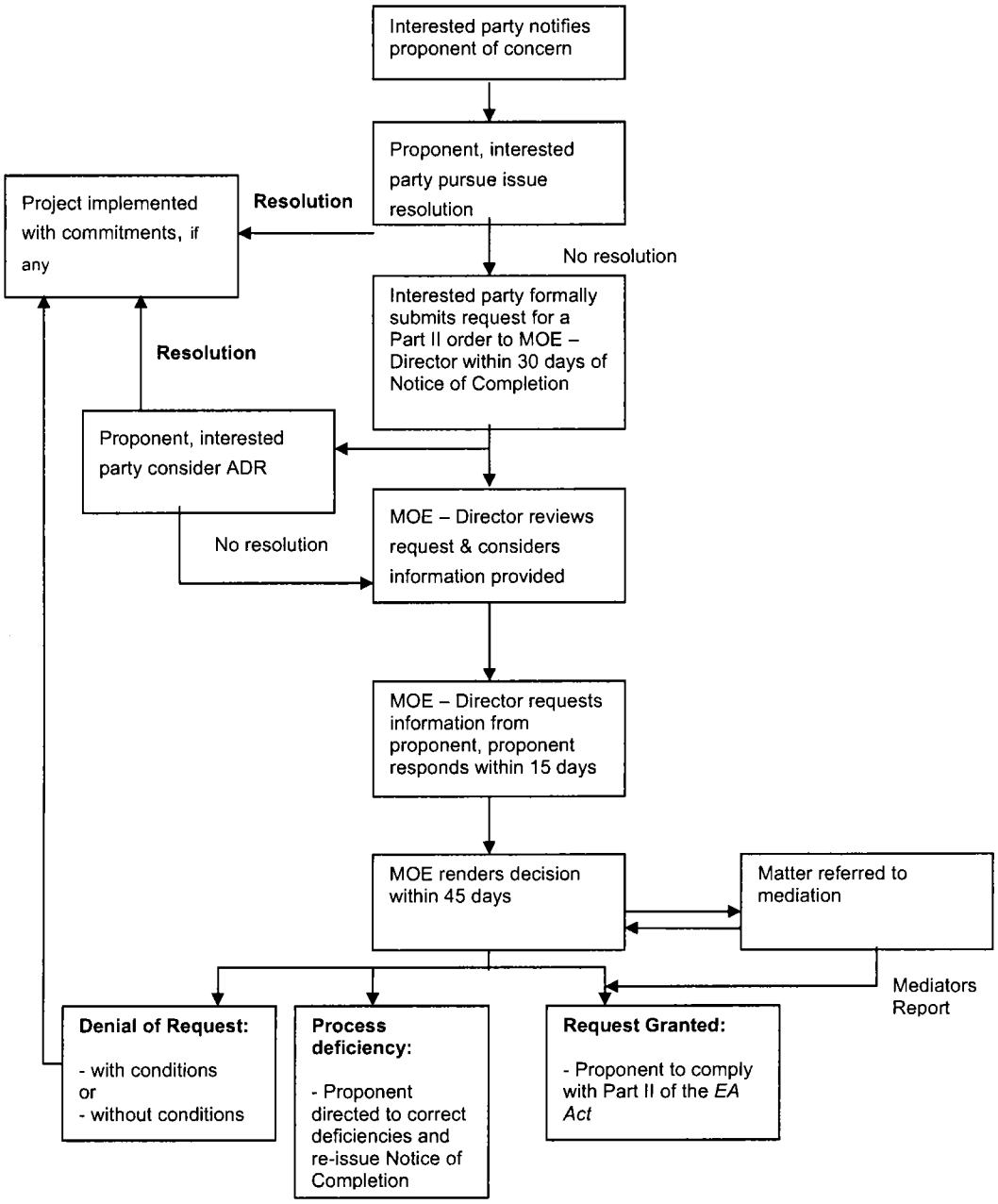
If the Minister or delegate decides to issue a Part II Order, he/she will notify the proponent, the Part II Order requester(s) and other interested persons and provide them with reasons for that decision. In approving the request, the Part II Order may:

- Set out directions for the preparation of Terms of Reference, which would govern the preparation of the required individual EA; or
- Declare that the proponent has satisfied such requirements for the preparation of an individual EA as specified in the Order.

If the Minister or his/her delegate decides to deny the Part II Order request, he/she will notify the proponent, the Part II Order requester(s) and other interested persons as he/she considers advisable and provide them with written reasons for that decision. The proponent shall then continue to plan and implement the project in accordance with the commitments set out in the project's documentation. The proponent will also be required to comply with any conditions specified in deciding not to make a Part II Order.

The Minister or delegate may also refer the matter to mediation before making a decision under the provisions of subsection 16(6) of the *EA Act*. For more information about mediation, proponents should refer to the *Code of Practice: Using Mediation in Ontario's Environmental Assessment Process* (see **Appendix C**).

Figure 10 Process for a Part II Order Request



8.7 Period of Project Approval

The proponent may proceed with a project within five years of filing a Statement of Completion. If a project has fulfilled the Class EA requirements but has not yet reached the start of construction within five years of completing the Class EA the proponent shall review the planning and design process and the current environmental setting to ensure that the project and the mitigation measures are still valid.

If through technical review and by applying the potential effects identification matrix set out in **Table 3**, the review does not identify important changes, the project can proceed without amendments to the ER. The proponent is required to retain a copy of the review results with the original ER.

If changes have occurred or modifications to the project are required that may result in negative effects to the environment, the review shall be recorded in an Addendum to the ER as described in **Section 8.8** below.

8.8 Addendum Provisions for Environmental Reports

The purpose of the addendum provisions is to require proponents to consider the significance of changes to projects after completing the Class EA process or with implementation of a project more than five years after filing a Statement of Completion, and to require consultation on changes that are environmentally significant. The changes may include, for example, environmental conditions, alternative project approach, new government policies, new engineering standards or new technologies for mitigating measures.

Circumstances under which proponents must apply the addendum provisions outlined in this section:

- Where a project has been planned in accordance with the Class EA, but where a proponent decides prior to or during construction that it is not feasible or desirable to implement the project in the manner described in the completed ER.
- Where a project has been constructed/implemented as described in a completed ER under the Class EA or Screening Report/Environmental Review Report under the Environmental Screening Process, and where the proponent wishes to make a minor modification to the project.
- Where a project was approved under an individual EA, and the proponent wishes to make a minor modification to the project that is not covered by the original approval.

For the purposes of this Class EA, a minor modification is a modification that is below the threshold for a significant modification under the Electricity Projects Regulation. A significant modification is any expansion of or change in the facility that would increase the name plate capacity of the facility by 25 per cent or more.

Proponents shall determine, through technical review and/or consultation with interested and affected parties and by applying the potential effects identification matrix set out in **Table 3**, whether the proposed change to the project may have new negative effects to the environment.

8.8.1 No Potential for New Negative Effects

Where it is determined that there will be no new negative effects, the proponent shall document that determination in the project files.

8.8.2 Potential for New Negative Effects

Where it is determined that there may be new negative effects, the proponent shall prepare an Addendum. Alternatively, the proponent may elect to prepare a new ER, rather than prepare an Addendum.

The Addendum shall:

- reference the original ER and describe the change(s) being considered;
- summarize the circumstances necessitating the change(s);
- describe the implications of the change(s); and
- review mitigation measures that will be employed to reduce new negative effects of the change.

The proponent must then provide a Notice of Addendum. The notice will describe the project, its Category, and the date of filing the Statement of Completion (or Notice of Approval in the case of an individual EA), request comments, indicate the basis upon which the Addendum is proposed, and provide contact information and information regarding the opportunity to request a Part II Order. Requests shall be sent to both the contact person named in the notice and the MOE – Regional EA Planner.

The Notice is to be sent to those who would have received the Notice of Completion as issued in accordance with **Section 4.4.3** of the Class EA. A 30-day response period is to be provided. If a Part II Order request is received, the process described in **Section 8.6** will be followed. In addition to the requirements in **Section 8.6**, a request for a Part II Order should refer to changes in circumstances that have occurred since the project was originally approved that justify an individual EA. Where the addendum is filed due to a change to the proposed undertaking, the Part II Order provision applies only to the significant changes to the undertaking; not the aspects that were previously approved under this Class EA process or through the individual EA.

During the 30-day review period, no work shall be undertaken that will adversely affect the matter under review. Furthermore, where implementation of a project has already commenced, those portions of the project that are the subject of the addendum, or have the potential to be directly affected by the proposed modification, shall cease until the termination of the 30-day review period.

If no Part II Order request is received within the notice of period, the proponent may proceed with the project. The proponent shall keep a copy of the Addendum with the original project documentation on site (or in an alternate location where it will be readily available) for the life of the project.

Appendix A: GLOSSARY OF TERMS AND ACRONYMS

A note on terms used in this document:

Terms commonly used in this document are defined in Appendix A. For other terms, the normal meaning of the word applies. At all times, legislated or formal government policy definitions of a term prevail over those used in this document. Defined terms in Appendix A are intended to capture both singular and plural forms of these terms in the policies.

Abandonment – A retirement option involving the surrender of responsibilities and claims for such facilities. Some or all of the physical structures and components of the facility would be left behind.

Access Road – A road built to a site or facility for the purpose of construction, operation and/or maintenance.

Archaeological Resources – Include artifacts, archaeological sites, and underwater archaeological sites. The identification and evaluation of such resources are based upon archaeological fieldwork undertaken in accordance with the *Ontario Heritage Act*.

Archaeological resources are often on or below ground, or form part of a cultural landscape. Their integrity can be compromised by any land use activity, including, but not limited to, site alteration, grading, soil removal, construction, shoreline stabilization, alteration to watercourses, extraction of aggregates, and the clearing of woodlots or forested areas.

Archaeological site – Any property that contains an artifact or any other physical evidence of past human use or activity that is of cultural heritage value or interest. Areas of archaeological potential – means areas with the likelihood to contain archaeological resources. Criteria for determining archaeological potential are established by the Province, but municipal approaches which achieve the same objective may be used. Archaeological potential is confirmed through archaeological fieldwork undertaken in accordance with the *Ontario Heritage Act*. Associated with Existing Infrastructure – means projects physically attached and/or logically connected to existing infrastructure including but not limited to dams, diversions, weirs, conveyances, auxiliary structures, powerhouses and other appurtenances, the creation or improvement of which would result in new or increased nameplate capacity.

Auxiliary Structure – Any structural device, other than the powerhouse, which affects the operation of the generating station (e.g., dams, weirs, etc.).

Block Dam – A dam structure, consisting of impermeable material, normally located at topographical/geological depressions to prevent leakage of water from a storage or head pond and to "block off" previous inflows or outflows to the watercourse may also be referred to as a side dam. The structure is designed for water retention; therefore, it has no specific facilities for passing water.

Built Heritage Resources – One or more significant buildings, structures, monuments, installations, or remains associated with architectural, cultural, social, political, economic, or military history and identified as being important to a community. These resources may be identified through designation or heritage conservation easement under the *Ontario Heritage Act*, or listed by local, provincial, or federal jurisdictions.

Canal – A channel dug or built to carry water. May be associated with the intake or tailrace of a generating station or may be a component of a diversion scheme. Cultural heritage landscape – a defined geographical area of heritage significance, which has been modified by human activities and is valued by a community. It involves a grouping(s) of individual heritage features such as structures, spaces, archaeological sites and natural elements, which together form a significant type of heritage form, distinctive from that of its constituent elements or parts. Examples may include, but are not limited to, heritage conservation districts, designated

under the *Ontario Heritage Act*; and villages, parks, gardens, battlefields, mainstreets and neighbourhoods, cemeteries, trailways and industrial complexes of cultural heritage value. A cultural heritage landscape may be present when documentation suggests a possible cultural heritage landscape (research studies, heritage impact assessment reports, etc.); or a property shows evidence of notable interaction between humans and their environment (e.g., a traditional portage route and a body of water, etc).

Cultural Heritage Resources – includes built heritage, cultural heritage landscapes, and marine and other archaeological sites.

Dam – a structure that is constructed as a barrier across a river, lake, pond, or stream to hold back water in order to raise its level, create a reservoir to control flooding, or divert the flow of water.

Day – for all timelines in the Class EA means calendar day.

Disposition – The granting by the MNR of certain or all rights to Crown resources through such means as permits, licenses, approvals, permissions, consents, leases, licenses of occupation, or sale.

EAAB – Environmental Assessment and Approvals Branch

Effect – A the occurrence of change or alteration associated with the environment within the defined study area, positive or negative, that would occur as a result of a project.

Electricity Projects Regulation – Prescribed as Ontario Regulation 116/01 – Electricity Projects (2001), as amended, under the *Environmental Assessment Act*. Defines the environmental assessment requirements for electricity projects.

Endangered Species – Any species, as listed in the Regulations under the *Ontario Endangered Species Act*, and/or the schedules of the *Federal Species at Risk Act*.

Environment– under the *Environmental Assessment Act*, environment means:

(i) air, land or water;
(ii) land and animal life, including man;
(iii) the social, economic and cultural conditions that influence the life of man or a community;
(iv) any buildings, structure, machine or other device or thing made by man;
(v) any solid, liquid, gas, odour, heat, sound, vibration or radiation resulting directly or indirectly from the activities of man; or
(vi) any part or combination of the foregoing and the interrelationships between any two or more of them, in or of Ontario.

Environmental Assessment (EA) – The identification and evaluation of effects of an undertaking on the environment, as contained within a document prepared in accordance with the *Ontario* and/or *Canadian Environmental Assessment Act*.

***Environmental Assessment Act* (EA Act)** – A provincial statute that has the purpose of the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management in Ontario of the environment.

Fish – (as defined in the federal *Fisheries Act*) includes parts offish, shellfish, crustaceans, marine animals and any parts of shellfish, crustaceans or marine animals, and the eggs, sperms, spawn, larvae, spat and juvenile stages of fish, shellfish, crustaceans and marine animals.

Fish Habitat – (as defined in the federal *Fisheries Act*) includes spawning grounds and nursery, rearing, food supply, and migration areas on which fish depend directly or indirectly in order to carry out their life processes.

Forebay – A reservoir immediately upstream of the generating station intake. Also referred to as headpond.

Generating Station/Facility – a facility in which the force of failing or flowing water spins turbines to drive generators for electricity production. It is a general term, which includes a powerhouse, dam, headpond and a means of carrying water from the headpond to the powerhouse. This also includes pumped storage and in-stream facilities.

Generator/Generating Units – A machine for converting mechanical energy into electric energy.

Habitat – The place or environment where a plant or animal naturally or commonly lives and grows.

Head – The difference in elevation between the water surface at the intake and the tailrace level of the hydroelectric facility.

Headpond – The reservoir typically used for waterpower generation.

Headrace – a channel through which water passes to reach the hydro plant intake; also called an intake channel.

Heritage Attributes – means the principal features, characteristics, context and appearance that contribute to the cultural heritage significance of a protected heritage property.

Hydroelectric – Generation of electricity from falling water.

Impact management strategy – refers to the range of environmental protection strategies such as avoidance/prevention/mitigation and post-construction monitoring/evaluation/adjustment.

Individual Environmental Assessment – An environmental assessment that is subject to the requirements set out in Part II of the *EA Act*.

Intake – A structure that forms the transition from the headpond or channel to a water-conveying conduit. The intake or headworks commonly incorporates trashracks to preclude debris, and gates to stop flow to the conduit and generating unit(s) beyond.

Kilovolt (kV) – One thousand volts (see volt). Used to describe "high voltage" electrical conductors, as in 115kV.

Listed Species – Species at risk listed under the federal *Species at Risk Act* and/or the provincial *Endangered Species Act*.

Load – The power requirement (usually measured in kilowatts) of a system or a piece of equipment at a given instant, or the average rate of energy consumption during a designated period of time.

Maintenance – The regular, routine actions, taken to retard the natural deterioration of a resource (or fixture and/or equipment). These actions are intended to keep the resource from premature loss due to failure, decline, wear or change attributable to normal use or the effect of the natural environment.

Managed Waterway – A waterway on which other water management infrastructure (dams, diversions, weirs etc.) and/or waterpower facilities exist and for which a human-made water management regime (i.e., levels and flows) has been established.

MCL – Ministry of Culture Mechanical – Those components of a hydroelectric facility that operate by way of machinery or a mechanism. This includes machinery such as cranes, pumps, compressors, turbines and systems such as compressed air, cooling water, sewage and domestic water.

Megawatt – One thousand kilowatts or one million watts, abbreviated as MW. (A gigawatt is one million kilowatts; a terawatt equals one billion kilowatts.)

Megawatt-Hours – the energy value of the production of a megawatt of electricity, abbreviated as MWh (a gigawatt-hour is s one million kilowatt hours; a terawatt-hour equals one billion kilowatts hours.)

Mitigation – The elimination, reduction or control of the adverse effects to the environment of a project, including restitution for any damage to the environment caused by such effects through replacement, restoration, compensation or any other means. The means, by which, projects can be modified to minimize or eliminate potential negative effects.

MNR – Ministry of Natural Resources

Modification – A significant modification means any expansion of or change in the facility that would increase the name plate capacity of the facility by 25 per cent or more. A minor modification is any expansion of or change in the facility that would increase the name plate capacity of the facility by less than 25 per cent.

MOE – Ministry of the Environment

Nameplate Capacity – The total of the designed electricity generating capacities of all the generation units in the facility. Measured in megawatts (MW) or kilowatts (kW).

Natural Heritage Features and Areas – Features and areas such as wetlands, fish habitat, woodlands, valleylands, and portions of the habitat and area of natural and scientific interest, which may be important for their environmental and social values.

Net Effect – Positive or Negative effects of a project and related activities that will remain after mitigation and impact management measures have been applied. One project-one process- a concept that in practice will allow a proponent to apply a single coordinated process (i.e. description, evaluation, consultation, assessment, documentation) to the multiplicity of legislative requirements that can reasonably be addressed or anticipated at the EA stage of a project.

Operation – Includes operation, maintenance and repair, rehabilitation, as well as upgrading and replacement, provided that the function or capacity of the facility remains similar.

Part II Order – A decision by the Minister of the Environment to require that a project or activity that would normally be considered under a Class EA be designated and subject to an individual environmental assessment in accordance with Part II of the *EA Act*.

Penstock – An assembly of pipes or a civil structure designed to carry water under pressure to a turbine. Large penstocks are usually made of curved steel plates embedded in concrete.

Pipeline – An assembly of hollow cylinders for carrying water.

Powerhouse – A primary part of a hydroelectric facility where the turbines and generators are housed and where power is produced by falling water rotating turbine blades.

Primary Power Source – With respect to a generation facility, the primary power source used by the facility to generate electricity, based on the energy input of the power sources used by the facility to generate electricity.

Proponent – A person who: carries out or proposes to carry out a project; or is the owner or person having charge, management or control of a project.

Protected Heritage Property – means real property designated under Park IV, V or Vl of the *Ontario Heritage Act*; heritage conservation easement property under Parts 11 or IV of the *Ontario Heritage Act*; and property that is the subject of a covenant or agreement between the owner of a property and a conservation body or level of government, registered on title and executed with the primary purpose of preserving, conserving and maintaining a cultural heritage feature or resource, or preventing its destruction, demolition or loss.

Pumped Storage – a method of storing and producing electricity to supply high peak demands by moving water between reservoirs at different elevations.

Qualified Persons – with regard to cultural heritage resources, means experts with demonstrated, relevant experience in heritage conservation and currently employed in the appropriate field (i.e., built heritage or landscape heritage specialists, or licensed archaeologists)

Redevelopment – Redevelopment involves a major modification to, or an extension of, a hydroelectric facility. A redevelopment is normally carried out on a facility that is beyond economic maintenance/repair and is often at the end of its useful life. Redevelopment involves the replacement of a facility or a substantial portion thereof. Facility redevelopment may result in the construction of a new facility and retirement of the existing one. The redevelopment of generation facilities may not necessarily occur at the same locations, but may take place in the same general area as the existing facilities. An extension to a generating station traditionally refers to the addition of one or more complete generating unit(s) which increases the name plate capacity of the facility. This extension may be in the same general area or near the existing facilities.

Reliability – The degree of continuity of electricity supply.

Retrofit – The conversion of an existing dam, canal, conduit, or similar, that does not generate electricity to a Generating Station/Facility.

Riparian – Refers to the area adjacent to the shoreline.

Runner – Is an enclosed waterwheel that transforms the static and kinetic energy of the water into useful work.

Sluiceway – An opening or channel in a dam with a gate, valve or stop log at its head to regulate flow; and water flows under the gate.

Spillway – A passageway or channel located near or at the top of a dam, to remove surplus water from a reservoir; and water flows over the gate or control structure.

Storage Dam – Is a dam structure, normally with some water passing capability, the purpose of which is to store or impound a quantity of water further upstream from the hydroelectric generating station in order that outflow may be regulated in a manner suitable for power production.

Tailrace – A channel through which the water flows away from a hydro plant following its discharge from the turbine(s).

Technical Heritage Studies – may include archaeological assessments (Stage 1-4); historic research, site analyses and evaluations of cultural heritage value or interest; heritage impact assessments; heritage conservation plans; or studies of mitigation options appropriate to each.

Transformer – An electromagnetic device for changing alternating current electricity to either higher or lower voltage. Transformers make transmission of power over long distances possible.

Transmission Line – The conductors and their supporting towers, used to convey electric energy from a generating station to a distant point.

Tunnel – A conduit, usually constructed through solid rock, and sometimes lined with concrete, which is used to convey water.

Turbine – Is the mechanical machinery, of which the runner is a part, which transforms the kinetic and potential energy of water into mechanical energy that is used to drive the generator. The generator subsequently converts this mechanical energy into electrical energy.

Unmanaged Waterway – A waterway on which no other water management infrastructure (dams, diversions, weirs etc.) and/or waterpower facilities exist and for which no human-made water management regime (i.e. levels and flows) has been established.

Volt (V) – A measure of electrical "potential difference" between two points in an electrical field. A volt is a unit of electrical pressure, which causes an electric current to flow through a wire.

Water Management Regime – The physical conditions of a watercourse characterized by its water flow and level.

Waterway – a river, stream, canal, lake or other water-related feature.

Watt (W) – A standard unit used to measure amounts of electrical power. One horsepower is equivalent to approximately 746 watts.

Weir – Water control structure that either diverts water or holds water back.

Zone of Influence – immediate area beyond the site directly affected by the project.

Appendix B: Examples of Typical Mitigation Measures

The following are examples of the types of mitigation measures generally considered for waterpower projects. This is not an all-inclusive list. Alternatives to the measures listed below may be considered and/or implemented as circumstances dictate. **Appendix C** includes specific references to approved mitigation approaches.

Examples of Mitigation Measures for Potential Environmental Effects

ENVIRONMENTAL EFFECTS	MITIGATION MEASURES	APPLICATION
1.0 Natural Environment		
1.1 AIR		
Equipment Exhaust	• avoid unnecessary engine idling • ensure proper equipment maintenance	Throughout construction
Smoke from Burning Project Waste Materials	• avoid or minimize vegetation clearing and open burning • do not burn waste plastics, rubber, used engine oil waste or chemically treated/ contaminated materials • chip* and compost waste timber slash, utilize select materials for wildlife habitat creation • burn timber only when it is dry and configure timber slash piles to promote good internal air circulation and rapid burning • carry out burning only under favourable ambient air quality and meteorological conditions • identify locations of sensitive ecological and human receptors in proximity to proposed burn location • maintain an adequate buffer between burn area and sensitive ecological and human receptors • avoid burning at locations, and during conditions when sensitive receptors downwind are potentially impacted • monitor smoke plume density and direction and take any required actions to minimize impacts on sensitive receptors • apply fine water mist to dense smoke plumes potentially affecting sensitive receptors • prepare a contingency plan to address excessive smoke and out of control burns	Throughout construction

Examples of Mitigation Measures for Potential Environmental Effects

ENVIRONMENTAL EFFECTS	MITIGATION MEASURES	APPLICATION
1.1 AIR cont.		
Dust	• wet down dry soils or apply other dust suppressants • temporarily plant vegetation • use wind control structures (e.g. tarpaulin on trucks)	
Odour	• use approved waste disposal site for organic waste and backfill frequently	
1.2 SOIL		
Soil Compaction and Topsoil-Subsoil Mixing	• avoid rutting by vehicles • schedule construction to minimize soil disturbance (e.g. winter) • use vegetation, gravel or woodchips in roads • use vehicles with low bearing pressure • stop activities when ground conditions give rise to severe soil profile disruption	Throughout construction
	• plough or cultivate • backblading/grading	At completion of construction
Wind and Water Erosion	• avoid areas with high erosion potential • schedule activites to the most stable ground conditions and low water levels • install wind control structures • stabilize slopes	Prior to construction
	• use mechanical and vegetative erosion controls • minimize vegetation clearing • avoid trenching parallel to the fall of a slope • avoid access road grades of greater than 12% (5% near river banks) • minimize stream crossing and install adequate crossings • provide buffer zones along water bodies	During initial phases of construction Operational Phase

Examples of Mitigation Measures for Potential Environmental Effects

ENVIRONMENTAL EFFECTS	MITIGATION MEASURES	APPLICATION
1.2 SOIL cont.		
Shoreline Erosion in Headpond/Reservoir	• monitor shoreline for headpond-induced erosion • implement riverbank protection and stabilization as appropriate	
Contamination by Petro-Chemicals and Other Chemicals	• build impervious dikes around oil, fuel and chemical storage areas • install impervious liners • ensure availability of spill control material and procedures • investigate restoration methods • properly store and dispose of materials containing oil (including crankcase oil), chemicals, fuel and other hazardous materials • supervise oil and fuel extractions from storage areas • fuel trucks at properly designed fuelling stations • prohibit crankcase oil draining onsite	
1.3 WATER		
Sedimentation of Streams Due to Erosion from Construction Activities	• use mechanical and vegetative erosion controls	During initial phases of construction and throughout
Bank and Shoreline Erosion	• retain buffer strip of bank vegetation • use mechanical and vegetative erosion controls	Throughout construction
Impedance of Flow of Streams and Other Surface Waters (Especially Spring Freshet)	• use and maintain appropriate stream crossing devices • use equalizing culverts in roads across wetlands • use corduroy in wetlands, where practical • maintain adequate flushing rates	During initial phases of construction
Ponding or Channelization of Surface Waters Due to Rutting	• schedule activities for stable ground conditions	Prior to construction
	• use gravel roads	Throughout construction
	• backblading	At completion of construction

Examples of Mitigation Measures for Potential Environmental Effects

ENVIRONMENTAL EFFECTS	MITIGATION MEASURES	APPLICATION
1.3 WATER cont.		
Contamination of Surface Waters through releases of Cement and/or Concrete Cuttings and Debris, Dust and Leachate, Form Oils	• ensure a spill response plan is in place and known to workers • maintain appropriate emergency response measures (e.g., absorbent mats, booms) are available onsite	Construction and Operational/ Maintenance Phase
Contamination of Surface or Ground Waters Through Spills or Leaks of Hazardous Substances	• build impervious dikes around oil, fuel and chemical storage areas with impervious liner • store fuel, oil and chemicals at least 150 m from water • minimize salt usage on access roads • ensure availability of spill control material and procedures	Throughout construction
Contamination of Surface Waters and/or Ground Waters through releases of Contaminated Drainage, or Acid Rock Drainage (ARD)	• avoid or minimize exposure/excavation in rocks having highly leachable and/or reactive contaminants (e.g., heavy metals, pyrite minerals, potash, etc.) • control of the amount of surface area exposed to leaching from natural processes (e.g., precipitation; freeze thaw, temperature variation, desiccation, etc. contributing to further fragmentation; etc.) • control of the oxidation and acid generating processes • control of contaminant migration • collection and treatment of contaminated drainage	Throughout construction
Sedimentation of Streams from Dewatering Operations	• contain material when working in the vicinity of water bodies • use sediment traps or settling ponds	Throughout construction
Channel Disturbance Sediment Production at Stream Crossings	• remove material from the site • install an appropriate crossing device • use sediment traps or settling ponds	During initial phases of construction
Increase in Water Temperature due to Vegetation Removal at Stream Crossings	• retain bank vegetation and overhanging vegetation	Throughout construction
Methyl mercury contamination	• tree and vegetation clearing of reservoir area before flooding	During construction

Examples of Mitigation Measures for Potential Environmental Effects

ENVIRONMENTAL EFFECTS	MITIGATION MEASURES	APPLICATION
1.3 WATER cont.		
Changes to Ice formation and movement	• optimize facility to minimize formation of anchor or frazil ice • use ice chutes, wing walls, log booms, sluice gates or bubblers, as appropriate	Construction and Operational Phases At completion of construction
Reduction in Water Storage Capacity due to Removal of Vegetation (i.e., slopes, wetlands)	• selectively remove vegetation • revegetate with compatible species	
1.4 VEGETATION		
Loss of Vegetation	• minimize clearing • use blast mats • minimize off-site vehicular activities • protect sensitive vegetation areas • confine activities to designated areas	Throughout construction
Injuries to Vegetation	• fell trees into clearing • schedule construction and clearing to take advantage of stable soil conditions	Prior to and throughout construction
Growth Retardation due to Dust	• control dust levels	
1.5 WETLANDS		
Drainage Impairment	• schedule activities to minimize effects (e.g., winter) • use corduroy • use equalizing culverts • remove granular fill used on roads • avoid filling in wetlands • avoid construction during periods of high water table	Prior to and throughout construction
Soil Disturbance	• use extra wide-tracked equipment • minimize access • confine activities to designated areas • cut muskeg brush just prior to fill replacement on access road	Throughout construction
Loss of Wildlife Habitat	• selectively remove vegetation • retain dead snags to provide wildlife habitat • retain compatible vegetation	During Construction
Loss Due to Flooding	• dyke off from reservoir	

Examples of Mitigation Measures for Potential Environmental Effects

ENVIRONMENTAL EFFECTS	MITIGATION MEASURES	APPLICATION
1.6 FISH AND WILDLIFE		
Loss of Habitat Breeding and/ or Food Source for Terrestrial Wildlife due to Vegetation Removal	• inventory sensitive areas • avoid filling in small wetlands	Prior to construction
	• avoid areas containing rare/endangered species	Prior to and throughout construction
	• promote wildlife habitat through vegetation control and brush piles	Throughout construction
Changes in Composition of Vegetation as a Result of Soil Disturbance	• schedule construction to minimize soil disturbance • restore soils to a stable condition	Prior to and during construction
Removal or Burial of Stream Bottom Habitat and Increased Turbidity due to Sedimentation	• minimize erosion from cleared area by maintaining cover vegetation • use mechanical erosion control • minimize stream bank erosion by retaining shrubby bank vegetation • install sediment traps or silt curtains where necessary	During initial phases of construction
	• contain or filter pumped soil/water near watercourses • minimize amount and duration of instream work	Throughout construction
Impediments to the Migration and/or Breeding of Fish or Wildlife	• time construction activities to avoid disturbance to migrating and breeding fish and wildlife	Prior to construction
	• install and maintain appropriate stream crossing device	During initial phases of construction
	• restrict noise levels and duration	Throughout construction
	• design intakes to avoid fish entrainment	Prior to construction; operation
	• placement of intakes near to natural barriers to migration or to non-fish bearing reaches	
	• incorporate fish passage structures into project design where appropriate	Prior to construction; operation

Examples of Mitigation Measures for Potential Environmental Effects

ENVIRONMENTAL EFFECTS	MITIGATION MEASURES	APPLICATION
1.6 FISH AND WILDLIFE cont.		
Loss of Habitat and/or Terrestrial Wildlife Mortality during reservoir filling	• appropriate timing of reservoir filling	Construction and Operational Phases
Change in the Chemistry of Water Bodies	• minimize sedimentation of streams • prevent cut vegetation from entering watercourses	Throughout construction
Increased Water Temperature as a Result of Clearing Vegetation Near Streams	• retain bank vegetation	Throughout construction
2.0 Land and Resource Use		
2.1 AGRICULTURE		
Loss of Standing Crop due to Access Road and Other Construction Activities	• limit width of access and size of site • time construction to avoid growing season	Prior to construction
Soil Compaction	• schedule activities to times of the year when soils are least susceptible to compaction	Prior to construction
	• stop activities when ground conditions are poor • use equipment with low bearing capacity • use gravel roads with filter fabric underlay • locate access roads along existing traffic routes or fences	Throughout construction
	• plough or cultivate	At completion of construction
Topsoil-Subsoil Mixing and Soil Rutting	• schedule activities for firm ground • stop activity when ground conditions are poor • use equipment with low bearing capacity • use gravel roads with filter fabric underlay • compensate for reduced soil productivity • segregate topsoil from subsoil at work site • schedule activities to avoid growing season	Throughout construction
	• backblade and grade • add manures to offset fertility loss	At completion of construction
Disturbance to Farm Operations	• maintain contact with landowner/resident regarding timing	Prior to and throughout construction

Examples of Mitigation Measures for Potential Environmental Effects

ENVIRONMENTAL EFFECTS	MITIGATION MEASURES	APPLICATION
2.1 AGRICULTURE cont.		
Damage to Field Tiles	• avoid tile beds • minimize tile crossings	Prior to construction
	• use of soft track equipment • protect tile crossings by the placement of heavy steel plate or gravel • stop activities when ground conditions are poor	Throughout construction
	• repair damaged drains	At completion of construction
Disturbance to Livestock	• construction of farm gates	During initial phases of construction
	• secure farm gates • inform property owner of work schedule to allow adaptation of grazing practices • clean-up construction materials which could be ingested • maintain water access • employ additional noise control measures near sensitive livestock	Throughout construction
2.2 RECREATION, FORESTRY, HUNTING, TRAPPING AND MINING		
	• time construction to avoid peak recreation periods • inform forestry and mining operators, hunters, trappers and recreational users of construction schedules and progress • recovery of timber resources before flooding of reservoir • keep portage, traplines and trails clear of slash • minimize harassment to wildlife population • minimize turbidity and alteration of fish habitat • contain disturbed areas to minimize off-site effects	Prior to and throughout construction
	• removal of temporary access roads	At completion of construction

Examples of Mitigation Measures for Potential Environmental Effects

ENVIRONMENTAL EFFECTS	MITIGATION MEASURES	APPLICATION
2.3 HERITAGE RESOURCES		
Disturbance or destruction of archaeological sites and / or human burials	Conservation plans and mitigation recommendations by a licensed archaeologist after Stage 1 to 3 assessment, which may include: • Stage 4 excavation by a licensed archaeologist or • Stage 4 avoidance and protection on site as recommended and monitored by a licensed archaeologist	Prior to construction and throughout construction
Changes to built heritage resources	The following mitigation options are arranged according to level or degree of intervention from minimum to maximum. They are to be applied in rank order such that Option 1 must be shown to be non-viable, before Option 2 can be considered, and so on. It is understood that conservation plans will be integrated into all options. 1. Retain existing built heritage attributes with no major change. 2. Restore missing or deteriorated elements where physical or documentary evidence (e.g., photographs or drawings) exists. 3. Retain existing built heritage attributes, but sympathetically modified. 4. Retain existing built heritage attributes with sympathetically designed new structures in proximity. 5. Retain existing built heritage attributes with limitations on use or adapted for a new use. 6. Retain built heritage attributes as a monument or remnant for viewing purposes only. 7. Relocate built heritage attributes to an appropriate new site for continued use or adaptive re-use. 8. Remove and/or replace built heritage attributes with a sympathetically designed structure and a. Salvage building elements for incorporation into new structure or for future conservation work or displays; b. Undertake full recording and documentation of existing building.	Prior to construction and throughout construction

Examples of Mitigation Measures for Potential Environmental Effects

ENVIRONMENTAL EFFECTS	MITIGATION MEASURES	APPLICATION
3.0 Socio-Economic Environment		
3.1 POPULATION AND ECONOMIC BASE		
	• employ local labour force where possible • use onsite camp to minimize population influx • schedule to avoid peeks and valleys and workforce • encourage local spending where possible • minimize effect on traditional Aboriginal hunting, fishing, trapping and gathering practices and patterns	Throughout construction
3.2 EMPLOYMENT AND LABOUR SUPPLY		
	• inform local residents of skill requirements and consider training programs • Identify and plan labour force housing requirements • encourage local spending where possible	Prior to construction
3.3 RECREATION AND TOURISM		
	• avoid disruption to tourism businesses by minimizing changes in access • maintain continuity of linear recreation corridor • retain tree screens and curve access routes • plant tree screens • avoid sensitive soils for access routes • stabilize erodible soils by vegetation or mechanical means • maintain and/or implement appropriate landscaping in tourist areas	Prior to and throughout construction
3.4 TRANSPORTATION AND COMMUNICATIONS		
Additional road traffic	• select transportation routes to minimize effects on community traffic patterns and levels • select transportation routes that avoid creating permanent access to remote areas • time construction to avoid tourist season if possible	Prior to construction

Examples of Mitigation Measures for Potential Environmental Effects

ENVIRONMENTAL EFFECTS	MITIGATION MEASURES	APPLICATION
3.4 TRANSPORTATION AND COMMUNICATIONS cont.		
Additional road traffic cont.	• bus in workers from communities • provide roadside warning signs and flagmen as necessary	Throughout construction
Navigation and nautical safety	• recovery of woody debris from reservoir • installation of appropriate signage and nautical markers	At the completion of construction
3.5 HEALTH AND SAFETY	• provide on-site emergency facilities • fire/safety inspections	Throughout construction
Noise and Vibration	• limit construction to daylight hours as necessary • observe applicable municipal by-laws, the Model Municipal Noise Control By-Law • maintain equipment exhaust systems • select transportation routes to minimize noise and to avoid residential streets	Throughout construction Throughout construction, operation and maintenance
Air Quality	• ensure motorized vehicles and construction equipment is maintained in good working condition and have functioning exhaust and/or pollution control systems • ensure appropriate respiratory and/or personal safety gear is used during handling of noxious substances	Throughout construction
Mud and Dust	• wet down dry soils or use other appropriate dust suppression methods • chemically control dust • clean roads to remove mud • temporarily plant grasses or other vegetation • screen with natural or planted vegetation • landscape in advance of site completion • use dust curtains on loaded dump trucks • pave or apply wood chips to road • use blasting mats	Throughout construction

Examples of Mitigation Measures for Potential Environmental Effects

ENVIRONMENTAL EFFECTS	MITIGATION MEASURES	APPLICATION
3.5 HEALTH AND SAFETY cont.		
Contamination of Water Resources	• properly seal paint, fuel and chemical containers • provide drinking water and proper sewage disposal and/or treatment facilities	Throughout construction
Public safety	• provide information and methods for the protection and safety of area users (e.g., chain link fences near dams, bridges and walkways; provide signs and information to raise public awareness and encourage education) • provide advance notice to changes in operating regimes	Throughout construction and during operation

Appendix C: Resource Material Available through the OWA

Note that there may be instances wherein the advice contained in the resource materials differs from that included in the Class EA. In such instances, the Class EA shall apply.

Aboriginal Involvement

- A Handbook on "Consultation" in Natural Resource Development, 2007 – Nishnawbe Aski Nation
- First Nations Information Project, 2007 – *www.aboriginalcanada.com*
- Reaching Effective Consultation, 2003 – Anishinabek/ Ontario Resource Management Council

Consultation

- Consultation in Ontario's Environmental Assessment Process, 2006 – Ministry of the Environment
- Using Mediation in Ontario's Environmental Assessment Process, 2006 – Ministry of the Environment

Cultural Heritage

- Assessing Environmental Effects On Physical and Cultural Heritage Resources, 1996 – Canadian Environmental Assessment Agency
- Ontario Hydro's History and Description of Hydroelectric Generating Stations, 1991 – Ministry of Culture
- Planning for Hydroelectric Generating Stations as a Cultural Resource, 1981 – Ministry of Culture
- Standards and Guidelines for the Conservation of Historic Places in Canada, 2003 – Parks Canada
- Ontario Hydro Ontario Heritage: A Study of Strategies for the Conservation of the Heritage of Ontario Hydro, Mark Fram, Ministry of Culture and Recreation, 1980.
- Ontario Heritage Tool Kit: (Heritage Properties Evaluation; Designating Heritage Properties; Heritage Resources in the Land Use Planning Process; Heritage Conservation Districts) – Ministry of Culture
- Cultural Heritage Resource Conservation in the Ontario Land Use Planning Process – Archaeological Assessment Technical Guidelines 1993 (Stages 1-3 & Reporting Format) – Ministry of Culture
- Checklist for Determining Archaeological Potential found in "Conserving a Future for Our Past: Archaeology, Land Use Planning & Development in Ontario – An Educational Primer and Comprehensive Guide for Non-Specialists" 1997 – Ministry of Culture

Federal-Provincial Coordination

- Federal/Provincial Environmental Assessment Coordination: A Guide for Proponents and the Public 2007 – Ministry of the Environment
- Practitioner's Guide: Federal Requirements for Waterpower Development Environmental Assessment Processes in Ontario, 2006 – DFO/OWA
- Preparing Project Descriptions under the *Canadian Environmental Assessment Act*, *CEAA*.

Legislative and Policy Approvals

- A Review of Potential Legislative Requirements for Waterpower Development in Ontario, 2007 – OWA
- Waterpower Site Release and Development Review Process – MNR
- Application for Authorization for Works or Undertakings Affecting Fish Habitat – DFO
- *Lakes and Rivers Improvement Act* Technical Guidelines – MNR

Effects on the Environment

- Determining Whether a Project is Likely to Cause Significant Adverse Environmental Effects, Canadian Environmental Assessment Agency
- Environmental Assessment Best Practices Guide for Wildlife at Risk in Canada, Canadian Wildlife Service
- Environmental Assessment Guideline for Forest Habitat of Migratory Birds, Environment Canada
- Integrating Climate Change Considerations into Environmental Assessment, Canadian Environmental Assessment Agency
- Migratory Birds Environmental Assessment Guideline, Environment Canada
- Wetlands Environmental Assessment Guideline, Environment Canada

- Addressing Cumulative Environmental Effects under the *Canadian Environmental Assessment Act*, Canadian Environmental Assessment Agency

Mitigation

- Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities, March 2005, Environment Canada
- Considering Fish and Fish Habitat in Existing Hydroelectric Operations and Maintenance: Electricity Industry Practices, 2001 – Canadian Electricity Association
- Environmental Construction Guidelines for Hydroelectric Facilities, 2003 – Ontario Power Generation
- Interim Standards and Best Practices for Instream Work, Appendix IV: Concrete Work, Province of British Columbia

Other Class Environmental Assessments

- A Class Environmental Assessment for MNR Resource Stewardship and Facility Development Projects, approved 2002, Ministry of Natural Resources
- A Class Environmental Assessment for Provincial Parks and Conservation Reserves, approved 2004, Ministry of Natural Resources
- Class Environmental Assessment for Minor Transmission Facilities, revised 1992, Ontario Hydro (now Hydro One)

Appendix D: Notification Templates

**Note: These templates are provided as suggestions only. Proponents are to adapt the notices to their specific needs.*

Notice of Commencement under the Class EA for Waterpower Projects

_____ Waterpower Project

Map showing location of project

_____, is planning to undertake an environmental evaluation and assessment for a proposed waterpower project (name of project) located _____. If approved and constructed, this waterpower project would (capacity of project) and produce ___MWh of renewable energy annually. The project's study area is presented in the map (left). The project is subject to the provisions of the Ontario Waterpower Association "Class Environmental Assessment for Waterpower Projects" (2008). Pursuant to the Class EA, this project is considered to be:

- associated with existing infrastructure
- on a managed waterway
- on an unmanaged waterway

The Class EA process requires _____ to undertake an evaluation of the project to evaluate its potential effects to the environment (positive and negative) and prepare a detailed Environmental Report. The project is also expected to require review and approvals under the (*Canadian Environmental Assessment Act*, *Lakes and Rivers Improvement Act*, etc.). This notice and the public consultation process for the project under the Class EA is intended to coordinate and meet the notification requirements relevant to the planning stage of the project under these statutes.

The evaluation and environmental report will assess the potential effects of the proposed waterpower project on the environment during its construction and operation. _____ has identified certain environmental components that are expected to be the focus of the proposed project. Public consultation will be an integral component of this process. You are invited to provide comments on the issues to be addressed, and/or to ask to be placed on the project's mailing list. (For Projects Associated with Existing Infrastructure, the Notice of Completion will be provided to all Aboriginal communities, agencies and other parties who expressed interest as a result of this Notice of Commencement and who participated in the consultation process.)For information on the project proposal, to raise any issues or concerns, or to be placed on the mailing list, contact:_____.

Under the *Freedom of Information and Protection of Privacy Act* and the *Environmental Assessment Act*, unless otherwise stated in the submission, any personal information such as name, address, telephone number and property location included in a submission will become part of the public record files for this matter and will be released, if requested, to any person.

Notice of Completion

_____ Waterpower Project, Location

(Proponent) is proposing to construct (waterpower project description – installed capacity, annual average energy generation). The project is proposed to be located (location description, waterway) (See map opposite). The project is subject to the Class Environmental Assessment for Waterpower Projects and is categorized a project:

- associated with existing infrastructure
- on a managed waterway
- on an unmanaged waterway

pursuant to the Class EA. An Environmental Report ("ER") has been prepared as required under the Class EA. The proposed project has been reviewed in a process consistent with the Class EA for Waterpower Projects, the results of which are described in the (project name) ER. The conclusions of the ER indicate that (general summary of RE conclusions and mitigation/ follow-up measures to be taken). In compliance with the Class EA, the ER is being

The ER is available for a 30-calendar day review period. Thus, this ER is being made available for review and comment from _____through to _____.
Hard copies of the ER may be found during this review period at the following public location:

The ER may also be viewed electronically at: (Proponent) must receive all comments in writing regarding the Project and/ or the ER no later than_____. All comments and correspondence should be sent to:
(Proponent or proponent's agent contact)

Per the process outlined in the Class EA, interested parties must first attempt to resolve any outstanding issues with the proponent during the 30-calendar day period. In the event that issues cannot be resolved during the review period the concerned party may make a written request, to the Minister of the Environment at the address noted below for a Part II Order under the Environmental Assessment Act (Individual Environmental Assessment). A copy of the Part II Order request must also be sent to (proponents) at the addresses noted above.

Minister of the Environment
12th Floor, 135 St. Clair Avenue West
Toronto, ON M4V 1P5

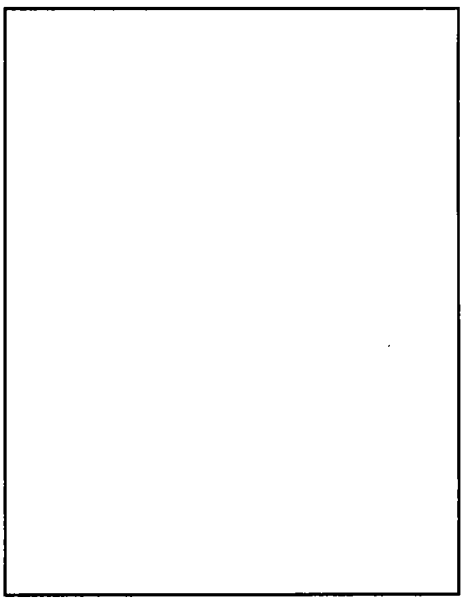
Requests for Part II Orders must be made in accordance with the provisions set out in the Class Environmental Assessment and must be received by the Minister of the Environment and (Proponent) no later than (30 days). A copy of the Class EA for Waterpower Projects is posted on the Ontario Waterpower Association website at www.owa.ca.

Under the *Freedom of Information and Protection of Privacy Act* and the *Environmental Assessment Act*, unless otherwise stated in the submission, any personal information such as name, address, telephone number and property location included in a submission will become part of the public record files for this matter and will be released, if requested, to any person.

Notice of Inspection of the Environmental Report
(projects on unmanaged waterways)

_____ Waterpower Project, Location

(Proponent) is proposing to construct (waterpower project description – installed capacity, annual average energy generation). The project is proposed to be located (location description, waterway) (See map opposite). The project is subject to the Class Environmental Assessment for Waterpower Projects and is categorized a project on an unmanaged waterway pursuant to the Class EA. An Environmental Report ("ER") has been prepared as required under the Class EA. The proposed project has been reviewed in a process consistent with the Class EA for Waterpower Projects, the results of which are described in the (project name) ER. The results of the ER indicate that (general summary of results and measures proposed). In compliance with the Class EA, the ER is being made available for a 30-calendar day review period. Thus, this draft ER is being made available for review and comment from _____ through to _____.



Hard copies of the ER may be found during this review period at the following public location:

_____

_____

The ER may also be viewed electronically at: (Proponent) must receive all comments in writing regarding the ER no later than_____. All comments and correspondence should be sent to:

(Proponent or proponent's agent contact)

A copy of the Class EA for Waterpower Projects is posted on the Ontario Waterpower Association website at www.owa.ca. Under the *Freedom of Information and Protection of Privacy Act* and the *Environmental Assessment Act*, unless otherwise stated in the submission, any personal information such as name, address, telephone number and property location included in a submission will become part of the public record files for this matter and will be released, if requested, to any person.

Exhibit B

Tab 6

ONTARIO POWER AUTHORITY

120 Adelaide Street West
Suite 1600
Toronto, Ontario M5H 1T1

T 416-967-7474
F 416-967-1947
www.powerauthority.on.ca

January 21, 2011

Paul Norris
President
Ontario Waterpower Association
380 Armour Road
Peterborough, Ontario K9H 7L7

RE: Notice to Proceed for Waterpower Projects under the Feed-in Tariff Program

I am writing to follow up on your letter dated December 15, 2010, in which you provided input on behalf of the Ontario Waterpower Association (OWA) and its members to the Ontario Power Authority (OPA) regarding provisions under the Feed-in Tariff (FIT) Contract. Specifically, the OWA recommended that the OPA adopt the "Statement of Completion" as a standard prerequisite for waterpower projects to meet Notice to Proceed (NTP) requirements under the FIT Contract.

Waterpower projects are exempt from the requirement for a Renewable Energy Approval (REA). As such, the OPA has undertook deliberations to determine what environmental or site access approvals will be required for NTP for waterpower projects in accordance with Section 2.4(b)(i) of the FIT Contract. After meeting with the OWA and reviewing the Class Environmental Assessment (EA) for waterpower projects, the OPA understands that the Statement of Completion represents the culmination of the Class EA process. At this stage of the Class EA process, community and Aboriginal consultation have been completed, environmental impacts identified, and appeals considered. Furthermore, the intent of the Class EA is to provide a streamlined process that is inclusive of requirements for additional federal, municipal and provincial approvals.

Based on these considerations, I am pleased to confirm that the OPA agrees that the Statement of Completion successfully demonstrates project maturity and viability in accordance with the intent of NTP provisions of the FIT Contract and that the Statement of Completion will be adopted as a prerequisite for NTP under Section 2.4(b)(i).

I would like to extend my appreciation to you and OWA members holding FIT Contracts for your involvement and input in this important matter.

Sincerely,

Bonnie Hiltz
Manager, Renewables
Ontario Power Authority