

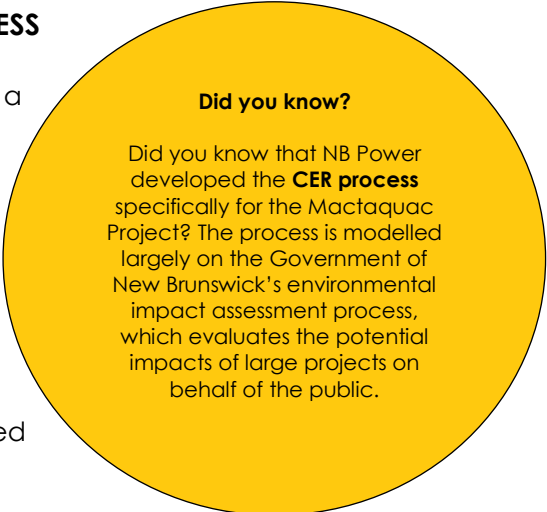
3.0 METHODS, SCOPING, AND ENGAGEMENT

This section describes:

- the overall approach of the Comparative Environmental Review (CER) process;
- the methods that were used to conduct the CER and prepare the CER report; and
- the scope of the CER, including how public, stakeholder and Aboriginal engagement influenced it.

3.1 THE COMPARATIVE ENVIRONMENTAL REVIEW PROCESS

The CER process contributes to NB Power's selection of a Preferred Option for the Station by comparing, at a high-level, the anticipated environmental, social or economic outcomes of each of the Options, based on current knowledge. The CER process is not part of a formal or legal environmental regulatory process. It is a process developed by NB Power specifically for the Mactaquac Project, and is self-driven by NB Power. The CER process will also support the scoping and conduct of a formal environmental impact assessment (EIA) that may be required for the selected Preferred Option.



The CER process followed several steps that are similar to those used in an EIA, although they may be less formal or less detailed. These steps are outlined in Figure 1.8 and described briefly below:

- **Prepare a Preliminary Project Concept:** NB Power prepared a Preliminary Project Concept (NB Power 2014c). It provided high-level detail of the required components and infrastructure associated with each of the Options.
- **Develop Terms of Reference for the CER Process:** NB Power established Terms of Reference for the CER (NB Power 2014b). They describe the purpose, objectives and methods of the CER, including the establishment of an independent CER Advisory Committee, the deliverables and key timelines. The CER process was publicly announced on November 25, 2014, and the Preliminary Project Concept and Terms of Reference were made available to the public at that time. The CER Advisory Committee is a group of independent experts in various fields that have been selected by NB Power to advise it on the conduct of the CER.
- **Develop Draft Guidelines for the CER:** Draft Guidelines for the CER were developed to identify the key environmental issues of concern that would be reviewed and addressed.
- **Conduct Public Review of the Draft CER Guidelines:** Following their review by the CER Advisory Committee, the Draft CER Guidelines were released to the public on November 25, 2014. The public comment period ended on January 8, 2015. The Guidelines were then finalized based on the input received, and the final Guidelines were released to the public in February 2015.

- Conduct the CER and Prepare a CER Report:** The CER Report was based on the Guidelines and described the existing environmental conditions, key environmental issues and potential environmental interactions of the Options with valued components (VCs). The report also identified key mitigation required for each Option.
- Conduct Public Review of the CER Report:** As further described in Section 3.2, the CER process included a public comment period which began on September 21, 2015 and ended on May 31, 2016 (except for Aboriginal engagement, which is ongoing). Various opportunities for comment were provided during the public comment period (e.g., presentations, workshops, open houses, community meetings, online tools). The CER Report was also provided to the CER Advisory Committee for review and comment.
- Finalize the CER Report:** The CER Report has been finalized, taking into account the comments received from Aboriginal groups, the public, stakeholders, and the CER Advisory Committee.

NB Power's selection of the Preferred Option is not part of the CER Process. The CER Report is only one source of information that NB Power will use to select the Preferred Option. A wide range of environmental, economic, engineering, energy policy and social issues will also be considered, as well as the results of other studies being conducted, and input received from Aboriginal people, stakeholders and the public. The inputs to NB Power's decision-making process regarding selection of the Preferred Option were outlined in Section 1.7 and shown in Figure 1.9.

3.1.1 How Does the CER Differ from an EIA?

Although efforts were made to mirror as closely as possible the methods that are normally used for a formal EIA, the CER differs from a typical EIA in the following ways.

- The CER is a planning tool that will help NB Power select a Preferred Option; it is not a formal regulatory process driven by federal or provincial legislation.
- The CER's intended audience is primarily NB Power as well as the public, stakeholders and Aboriginal persons, rather than regulatory agencies which are the key audience for a formal EIA.

Did you know?

Environmental assessment is a planning process that is used to predict environmental effects of projects before they are carried out so that negative effects can be reduced and positive effects can be enhanced through project design and planning. An assessment can be required provincially or federally.

- The *New Brunswick Environmental Impact Assessment Regulation* describes requirements for provincial assessments.
- The *Canadian Environmental Assessment Act, 2012* describes requirements for federal assessments.

Both the provincial and federal processes require public, stakeholder and Aboriginal engagement throughout the assessment. Multiple opportunities are provided to learn about the project being assessed, ask questions, and provide comments and input into the planning of the project.

All of the Project Options will likely require a provincial assessment of some form, and possibly a federal assessment. After the Preferred Option is selected, NB Power will consult with provincial and federal regulators to determine the environmental assessment requirements for the Project.

- The CER generally considers and discusses the key environmental issues and concerns associated with each Option, including how to reduce environmental interactions associated with the Option; it does not involve, conducting a formal, detailed environmental assessment that would lead to regulatory approval of a planned development.
- The CER will be conducted primarily using qualitative means rather than through quantitative means, except in cases where sufficient data and information are available.
- The CER will not provide a determination or judgment about whether the environmental interactions are acceptable according to legislation, objectives, standards, sustainability targets, legally-enforceable limits, or other thresholds.

Did you know?

The **CER Advisory Committee** is a group of independent experts in various fields that have been selected by NB Power to advise it on the conduct of the CER. The members of the CER Advisory Committee have extensive scientific and technical backgrounds in the fields of environmental impact assessment, social impacts, fisheries management, industrial pollution control, surface water and groundwater, and First Nations culture and interests. It reviews CER-related documents and provides input to NB Power on technical and societal matters that are relevant to the Options.

Though it exists solely to support the CER process which is not a legally-binding process, the CER Advisory Committee is analogous to a **Technical Review Committee** that is normally formed within the New Brunswick government to review a formal EIA document for development projects.

3.1.2 What Sources of Information Were Used to Carry Out the CER?

The key sources of information for the CER are shown in Figure 3.1.

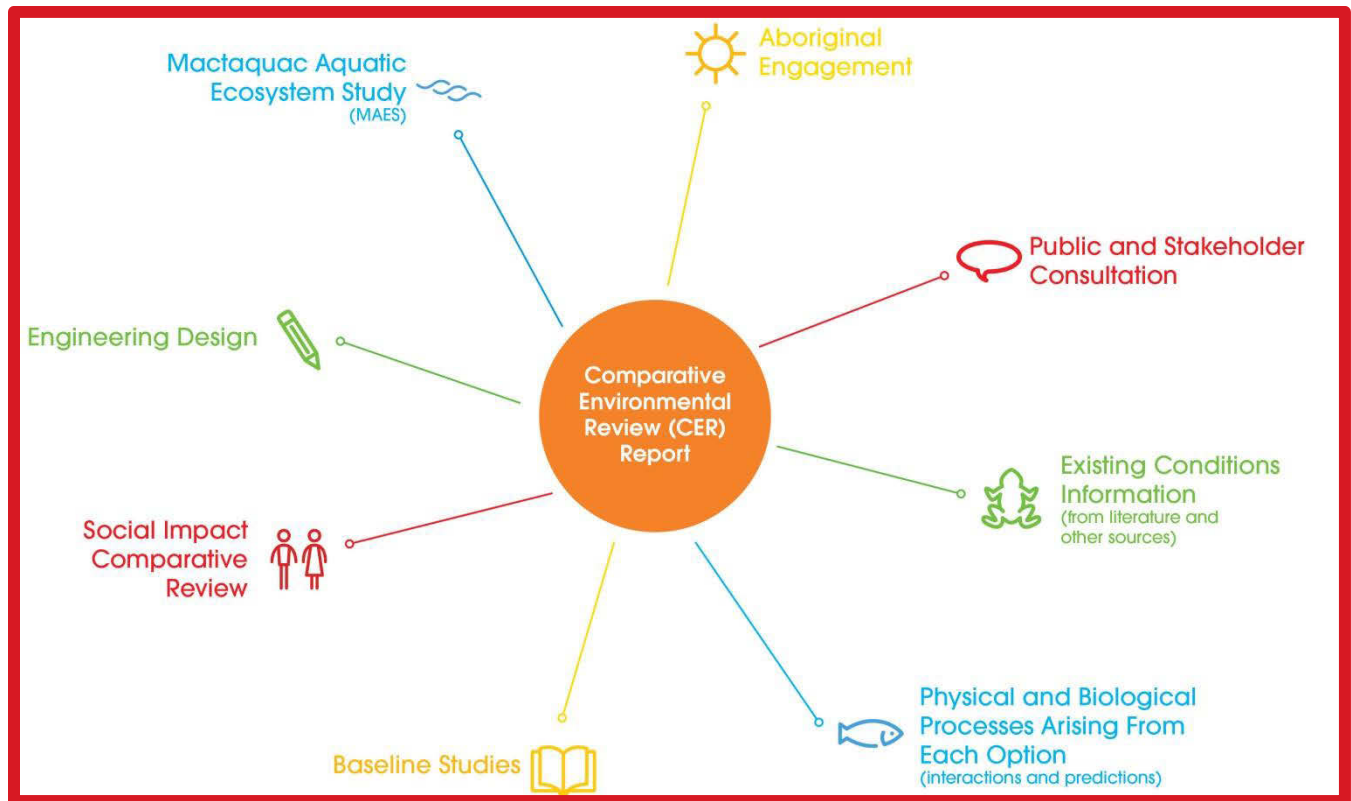


Figure 3.1 The CER and Other Sources of Information

The CER was informed by existing information as well as the results of other parallel studies being carried out by NB Power and members of its Project Team. The primary information sources included information related to the engineering design of the Options, the results of the Mactaquac Aquatic Ecosystem Study (MAES) that were available during the CER, input of the public, stakeholders and First Nations received at the time of finalizing the CER Report, the Social Impact Comparative Review, and other sources of information available from literature or other sources. The Study Team also applied its knowledge of the physical and biological processes arising from each Option, including planned mitigation.

3.2 METHODOLOGICAL FRAMEWORK FOR CARRYING OUT THE CER

The CER compared how each Option could interact with the VCs at a high-level, and identified mitigation measures that could be used to reduce those environmental interactions. A standard framework was used for each VC to document details of the review and to facilitate a high-level comparison of potential environmental interactions among the Options. The method used for the CER is shown in Figure 3.2.

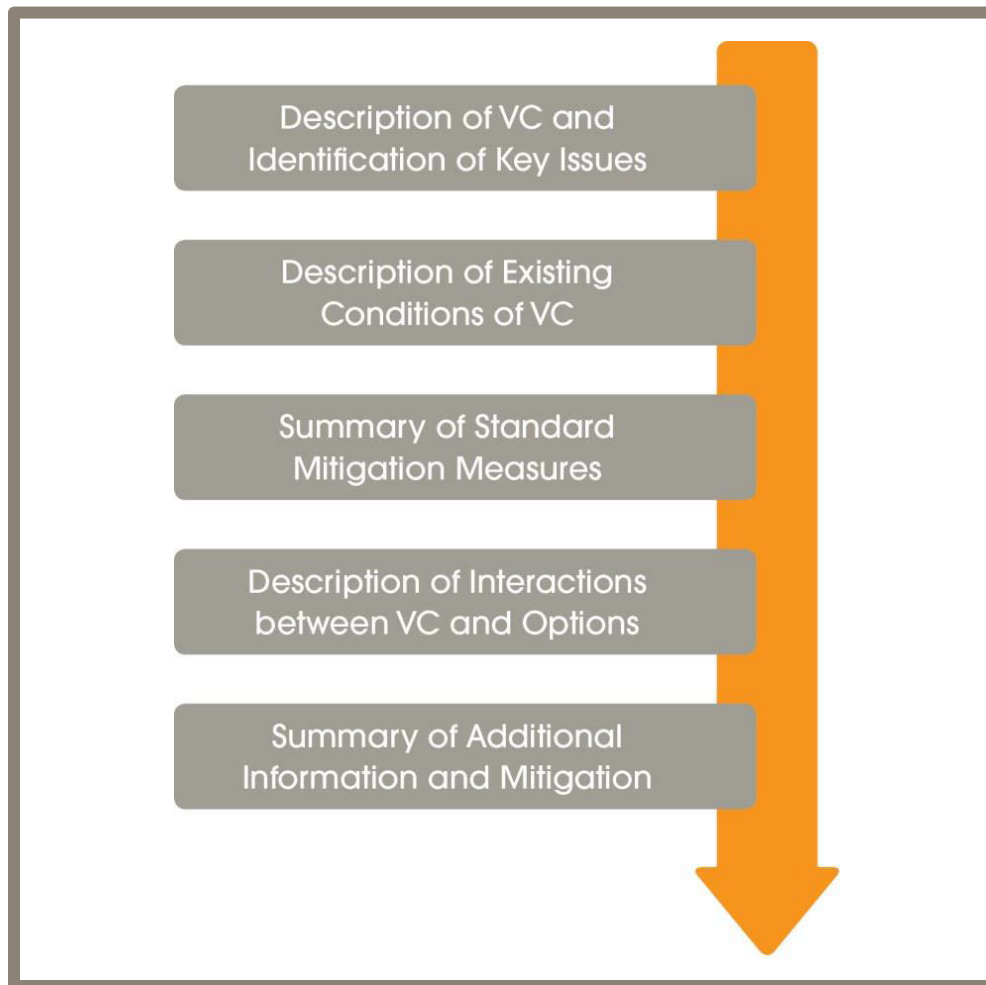


Figure 3.2 Valued Component (VC) Framework

Further details are provided below.

3.2.1 Scope of the Valued Component

The scope of the CER was determined from the Final Guidelines. The selection of VCs and identification of key issues for each VC were based on several factors, including Aboriginal, public and stakeholder engagement.

3.2.2 Description of Existing Conditions

To understand the potential interactions between the Options and each VC, the existing conditions for each VC were described. The area of review varied from one VC to another. In some cases, it was limited to the space immediately surrounding the Station; in others, it was a larger area or region. The information used to describe the existing conditions was obtained from:

- past research, studies or assessments conducted in the region (literature review);
- engagement with stakeholders, government and Aboriginal groups;
- interviews with service providers;
- government or other databases; and
- preliminary results of other work conducted in support of the Project.

3.2.3 Summary of Standard Mitigation Measures

Mitigation refers to steps that can be taken to lessen adverse environmental changes caused by a project. Standard mitigation, as defined in the CER, generally involves the use of best management practices that are applied to conduct a project in an environmentally responsible way. This includes measures such as: reducing the footprint of project facilities and activities; preparing and implementing an Environmental Protection Plan (EPP), and Environmental Management Plan (EMP). These standard mitigation measures were taken into account during the review of all of the VCs.

3.2.4 Discussion of Potential Environmental Interactions

Potential environmental interactions between the Options and the key issues of concern for each VC were identified for each phase (construction, demolition, operation and decommissioning), where applicable. These interactions are shown in a table similar to Table 3.1. If no interaction between a certain phase and a key issue was expected, it was identified as "NI" (no interaction), and the rationale for this determination was provided. In each case where an interaction with an Option was identified, it was noted with a checkmark, and a brief description of the interaction was provided. All interactions identified with a checkmark were then carried forward for further discussion.

Table 3.1 Example: Potential Interactions between <Name of VC> and the Options

Phase	Option 1		Option 2		Option 3	
	Change in <Key Issue 1>	Change in <Key Issue 2>	Change in <Key Issue 1>	Change in <Key Issue 2>	Change in <Key Issue 1>	Change in <Key Issue 2>
Construction (New Facilities, Option 1 or Option 2)	✓	✓	✓	✓		
Demolition (Existing Structures, Option 1 or Option 2)	✓	✓	✓	✓		
Operation (Option 1 or Option 2)	✓	✓	✓	✓		
Decommissioning (Option 3)					✓	✓
Notes: ✓ = Potential interactions. NI = No interaction. Shaded cells are not applicable to the particular option and phase.						

The description of the interaction included a discussion of how the phase or activity might interact with the biophysical, social or economic environment, and how that interaction could result in a change in the VC or key issue of concern. The use of standard mitigation measures (such as best management practices) or the use of standard equipment (such as using mufflers on machinery) was also taken into account when describing the potential interactions.

Any interactions that might result in a large change in the VC after considering standard mitigation were then identified. In these cases, additional mitigation measures may have been needed to improve the nature or extent of the change. These measures were identified as applicable and their purpose was explained.

All interactions were summarized by answering the key questions in Table 3.2.

Did You Know?

Did you know that a draft of the CER Report was posted on the Mactaquac Project website (www.mactaquac.ca)? NB Power held a public comment period from September 21, 2015 to May 31, 2016 to hear views on the Options and how they may affect New Brunswickers. These comments were used to produce the final CER Report.

Table 3.2 Summary of the Interactions

Characteristic	Description
Is the interaction negative or positive?	<ul style="list-style-type: none"> • Positive. • Negative.
What is the amount of change?	<ul style="list-style-type: none"> • Low – a change that remains near existing conditions, or occurs within the natural variability for the VC. • Medium – a change that occurs outside the natural variability for that VC but does not change the overall status of the VC. • High – a change that occurs outside the natural range of change for that VC that will change the status of the VC locally or regionally.

Table 3.2 Summary of the Interactions

Characteristic	Description
What is the geographic extent?	<ul style="list-style-type: none"> • Site – The interaction is limited to the immediate area where project-related activities occur. • Area – The interaction is limited to the general area surrounding the Station. • Region – The interaction occurs throughout the area of review and may extend to other regions. • Province – The interaction affects the entire province.
How long does the interaction last?	<ul style="list-style-type: none"> • Short – The interaction occurs for less than 3 months. • Medium – The interaction occurs for 3 months–1 year • Long – The interaction occurs for greater than a year. • Permanent – There is no foreseeable end-date for the interaction.
How often does the interaction occur?	<ul style="list-style-type: none"> • Single – The interaction occurs once. • Multiple – The interaction occurs several times, either sporadically or at regular intervals. • Continuous – The interaction occurs continuously.
Has additional mitigation been recommended?	<ul style="list-style-type: none"> • Yes. • No.

3.2.5 Summary of Requirements for Additional Mitigation and Information

The review of potential environmental interactions may have identified the need for additional mitigation measures. These measures were summarized as applicable, and their purpose was explained. Additional information may also have been identified to be needed for some of the VCs to fully describe the interactions between the VC and the Options. In these cases, further study (e.g., computer modelling, field studies) may be required. Additional information may also have been identified to be needed for other reasons including to support detailed project design, the subsequent environmental assessment, and the development of environmental protection measures.

3.3 SCOPE OF THE CER

The scope of the CER is described in the Final Guidelines. The CER:

- reviews potential environmental interactions between each Option and VCs, and key issues of concern;
- considers issues raised through Aboriginal, public, stakeholder or regulatory engagement;
- proposes mitigation measures that are technically and economically feasible and may reduce any substantial interactions between each Option and the environment; the measures include design, engineering and construction specifications, where appropriate;

Did you know?

The term **environmental interaction** is used to describe an action that may cause a change in the environment. In this document, it refers to how building and operating any of the Options could cause a change in any of the valued components.

Example: Harvesting trees for commercial purposes also causes a change in the landscape. Tree removal can affect animals that live in the forest (change in wildlife). It may also change how water moves across the ground and collects (change in surface water). Additionally, the machinery used to harvest trees produce emissions, which may contribute to contaminants in the air (change in air quality).

- identifies additional analysis (e.g., studies, research, modelling) required to evaluate environmental interactions if an EIA of the selected Preferred Option is needed; and
- considers Aboriginal traditional knowledge and community knowledge that was available when the CER was conducted.

It is important to note that there are some items related to Options 2 and 3 that are important to the selection of a Preferred Option, but are being handled separately from the CER. These items include the source of replacement power, greenhouse gas emissions associated with replacement power, and the source of replacement of reliability services, among others. The need to maintain a public river crossing for vehicles is also common to all Options (whether existing, modified, or new). All of these items will be scrutinized in more depth in the broader public discussion on the future of the Station and during the appropriate regulatory proceedings.

3.3.1 Description of Project Option Phases and Activities

The phases and activities associated with each of the end-of-life Options that were considered as part of the CER are listed in Table 3.3. The Life Achievement Option is described in Appendix A.

Table 3.3 Summary of Project Option Phases and Activities

Phases	Description of Activities
Construction (new facilities, Options 1 or Option 2)	Activities include site preparation, excavation of the approach and discharge channel, and construction of the powerhouse, main spillway, auxiliary sluiceway, switchyard, and fish passage facility.
Demolition (existing structures, Options 1 or Option 2)	Activities include demolition of the existing main spillway, diversion sluiceway, powerhouse and switchyard, and site reclamation and rehabilitation.
Operation (Options 1 and 2 only)	Activities include power generation, water level control, and operation of the fish passage facility as part of the operation of the repowered Station, for an estimated period of 100 years.
Decommissioning (Option 3 only)	Activities include dewatering of the headpond, site preparation for decommissioning, including establishment of ancillary facilities, removal of existing structures, removal of the earthen dam, and site reclamation and rehabilitation, including a return to the near-natural flow regime of the Saint John River.

The existing Station provides a main transportation link between Route 102 (south of the Saint John River) and Route 105 (north of the Saint John River). The review and selection of any alternative transportation link across the river will be conducted separately from the CER.

3.3.2 Selection of Valued Components and Key Issues of Concern

The VCs and key issues of concern that were developed as part of the CER Guidelines are listed in Table 3.4. The VCs were selected based on issues and concerns expressed through Aboriginal, public and stakeholder engagement; the ecological, social or economic importance of the VC; and the potential of each VC to be affected by the Options, based on the CER Study Team's professional judgment and experience. The comparative review of each VC and key issues of concern are presented in Sections 4.0 to 16.0.

Table 3.4 Valued Components and Key Issues of Concern for the Comparative Environmental Review

Valued Component	Key Issues of Concern
Atmospheric environment	<ul style="list-style-type: none"> • Potential change in air quality (including dust and odour). • Potential change in greenhouse gas emissions. • Potential change in microclimate.
Acoustic environment	<ul style="list-style-type: none"> • Potential change in sound quality (including ground vibration).
Surface water	<ul style="list-style-type: none"> • Potential change in surface water flow regime. • Potential change in surface water and/or sediment quality.
Groundwater	<ul style="list-style-type: none"> • Potential change in groundwater quality. • Potential change in groundwater quantity.
Aquatic environment	<ul style="list-style-type: none"> • Potential change in fish habitat. • Potential change in fish mortality. • Potential change in species at risk or species of conservation concern.
Vegetation and wetlands	<ul style="list-style-type: none"> • Potential change in vegetation communities. • Potential change in species at risk or species of conservation concern. • Potential change in wetland area and/or function.
Wildlife and wildlife habitat	<ul style="list-style-type: none"> • Potential change in wildlife habitat. • Direct mortality. • Potential change in species at risk or species of conservation concern.
Economy and employment	<ul style="list-style-type: none"> • Potential change in economy. • Potential change in employment.
Human occupancy and resource use	<ul style="list-style-type: none"> • Potential change in land and resource use. • Potential change in navigation. • Potential change in community.
Infrastructure and services	<ul style="list-style-type: none"> • Potential change in infrastructure and access. • Potential change in public services. • Potential change in housing and accommodations.
Transportation	<ul style="list-style-type: none"> • Potential change in transportation (including road infrastructure and traffic volume).
Heritage resources	<ul style="list-style-type: none"> • Potential change in heritage resources (including archaeological, historic, or palaeontological resources).
Current use of land and resources for traditional purposes by Aboriginal persons	<ul style="list-style-type: none"> • Potential change in traditional use.

The current use of land and resources for traditional purposes by Aboriginal persons VC provides a high-level summary of historical information, but little discussion of potential interactions is provided as a Traditional Knowledge/Traditional Land Use study being conducted will provide further information in this regard, to be considered separately by NB Power in its decision-making regarding the Preferred Option.

Issues related to human health and the environment will be considered by NB Power in the decision making process and addressed qualitatively by considering changes in the atmospheric environment VC, surface water VC, and aquatic environment VC.

3.4 ABORIGINAL, PUBLIC, AND STAKEHOLDER ENGAGEMENT

This section discusses the Aboriginal, public and stakeholder engagement which informed the review.

3.4.1 Aboriginal Engagement

Aboriginal engagement is an integral part of the decision making process around the Project. NB Power conducted early and ongoing engagement activities to integrate Aboriginal concerns and information into the CER.

NB Power's Aboriginal Engagement Plan, (NB Power 2014d) was implemented by a team that included NB Power, Dillon Consulting Ltd. and the Kingsclear First Nation Economic Development Corporation, with the following goals:

- identify and build an understanding of the issues, challenges and interests that are important to Aboriginal communities;
- clarify the criteria that Aboriginal communities and organizations would like NB Power to consider in designing and evaluating the Options;
- seek ways to address issues and concerns;
- identify and explore common interests;
- integrate inputs into a future environmental assessment process;
- invite Aboriginal communities to participate in the engagement process;
- recommend next steps to advance the Preferred Option for the Station; and
- identify potential ways that the Project Options could affect Aboriginal and treaty rights.

Throughout the Aboriginal engagement process to date, NB Power and its team sought to meaningfully reach, inform, engage, involve and understand the interests, needs, issues, challenges, and opportunities of Aboriginal communities associated with the Options. In developing its Aboriginal Engagement Plan, NB Power had identified three core values for community engagement: "inclusion", "responsiveness", and "respect". These core values will also serve as pillars to the ongoing dialogue throughout of the life of the Project. Engagement promises associated with these values are shown in Figure 3.3 (NB Power 2014d).

Did you know?

As part of an **engagement process**, NB Power has started discussions with Aboriginal communities about the future of the Station as part of an Aboriginal Engagement Plan developed specifically for the Mactaquac Project. An Aboriginal Engagement Plan developed specifically for the Mactaquac Project defined objectives and methods so that it would help NB Power understand how Aboriginal communities wished to be engaged and how the engagement process would continue in the future.

The **Aboriginal engagement** process presents opportunities for Aboriginal communities to provide input on the issues and interests that are important to them. Aboriginal communities are also able to share their knowledge of the historical and current use of the area surrounding the Station. The information collected from the Aboriginal engagement process will be included in a separate report from the CER. NB Power will use this report as a decision-making tool when selecting a Preferred Option.

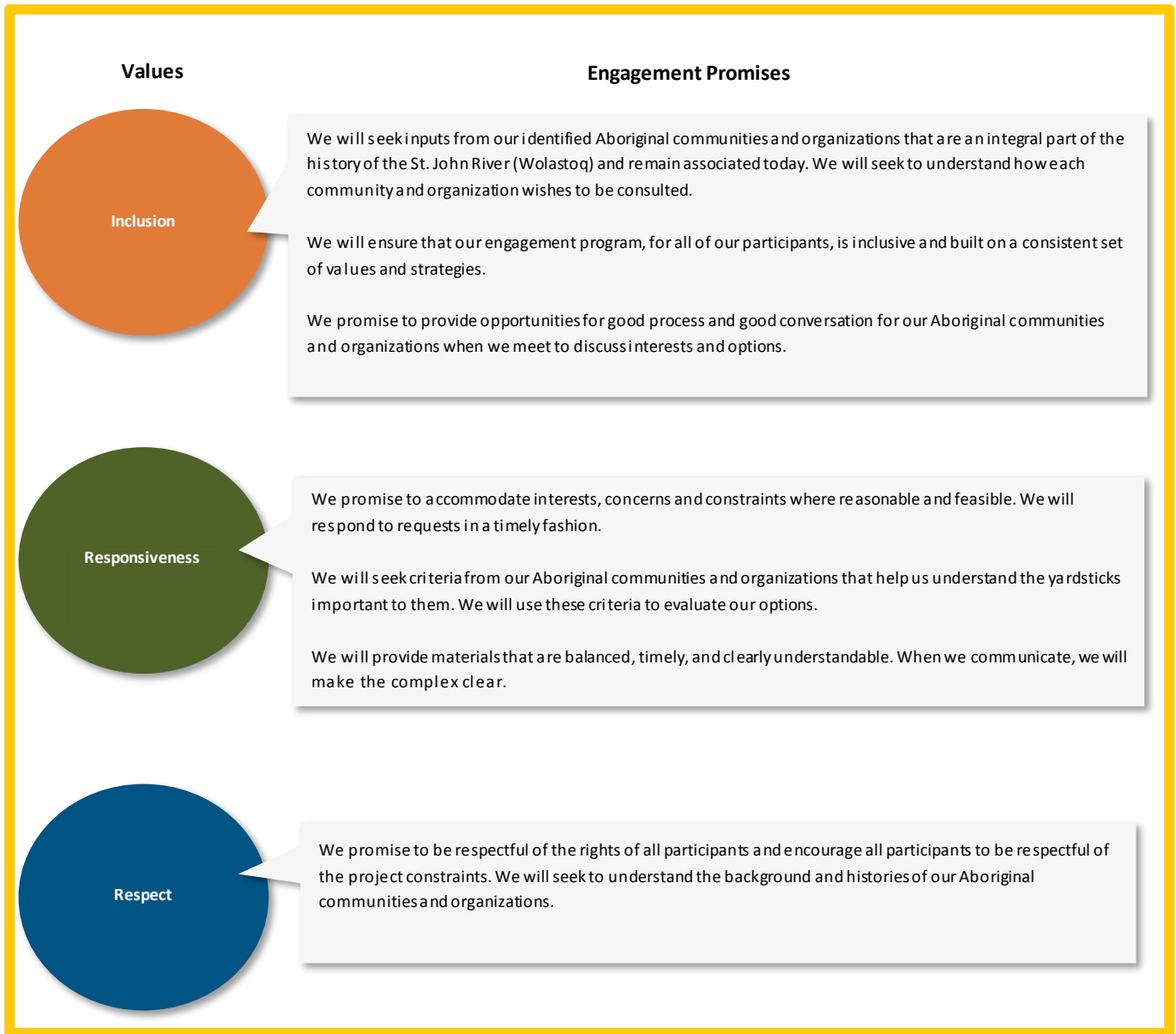


Figure 3.3 Aboriginal Engagement Values and Promises

As new information and knowledge becomes available, it is important to recognize the Aboriginal Engagement Plan as a living document which will be adapted to remain current and relevant in the ongoing discussions with communities. Information gathered during these engagement activities was used to inform the CER, and will continue to inform NB Power's decision in 2016 regarding the selection of the Preferred Option.

3.4.1.1 Aboriginal Engagement Methods

NB Power designed a number of methods for communicating information about the Project to individual Aboriginal communities and organizations, soliciting their feedback and registering their questions and concerns. Engagement was tailored to each community and organization.

The following are some of the methods that NB Power and Aboriginal communities and organizations explored as part of the Mactaquac Project:

- announcements and communications;
- open houses and community sessions;
- formal meetings;
- workshops and targeted discussions;
- information materials and sources;
- tracking and responding to interests and issues of concern;
- A consultation protocol developed by the six Maliseet communities of New Brunswick and NB Power went into effect in June of 2016; and
- NB Power funded the following activities as part of its consultation with the six communities:
 - a. Development of the consultation protocol;
 - b. Development of a protocol for collaboration of the six communities for the Mactaquac consultation;
 - c. A technical review of the draft CER Report;
 - d. A Traditional Knowledge/Traditional Land Use study;
 - e. Project-related community meetings; and
 - f. Legal consultation advice for the communities.

These and other methods will continue to be used to maintain dialogue with Aboriginal communities and organizations throughout the life of the Mactaquac Project.

3.4.1.2 Aboriginal Engagement Initiatives Conducted to Date

Since the Mactaquac Project was initiated in 2014, various initiatives have been undertaken or are planned in relation to engaging First Nations about the Project, with a particular focus on the Wolastoqiyik (Maliseet) First Nations. The following provides a general summary of activities carried out to date.

- General announcements have been shared with Aboriginal communities and organizations prior to being made public whenever practical and possible.
- General presentations have been delivered to the Kingsclear First Nation, the Assembly of First Nation Chiefs of New Brunswick (AFNCNB), the New Brunswick Aboriginal Peoples Council (NBAPC), and the Maliseet Nation Conservation Council (MNCC).

- An update meeting took place with the former Assembly of First Nations Chiefs of New Brunswick.
- Individual meetings have also taken place with the Chiefs of the Kingsclear First Nation, the St. Mary's First Nation, and the Woodstock First Nation. In addition, NB Power's President and CEO met with the Maliseet Chiefs in August 2015.
- Community meetings and open houses have been held at the St. Mary's First Nation (July 14, 2015) the Kingsclear First Nation (August 4, 2015), and the Woodstock First Nation (October 22, 2015).
- A presentation has been provided to the Union of New Brunswick Indians (UNBI) to provide an overview of the Project and the process going forward.
- General discussion has taken place with the Houlton Band of Maliseet Indians. Though located in Maine, the Houlton Band considers the Saint John River watershed and some of its tributaries (e.g., the Meduxnekeag River) to be part of its traditional territory.
- The Aboriginal Affairs Secretariat of the Government of New Brunswick has been updated periodically on planned and ongoing Aboriginal engagement activities and opportunities for the Project.
- Youth follow-up meetings have occurred with additional scheduled at the Kingsclear First Nation.

Other Aboriginal inclusion opportunities used to date for the Mactaquac Project have included the following.

- The Aboriginal Engagement process for the Mactaquac Project has been facilitated by the Kingsclear First Nation Economic Development Corporation in partnership with Dillon Consulting, on behalf of NB Power.
- First Nations' expertise was sought and obtained on the CER Advisory Committee, to advise NB Power on Aboriginal matters relating to the conduct of the CER.
- Aboriginal participation has been provided on the Lower Saint John River Hydro Community Liaison Committee.
- In the summers of 2015 and 2016, NB Power hired a First Nations field monitor to act as a liaison between NB Power and First Nations communities in relation to the conduct of field activities by its contractors in relation to the Project. Regular reports from the monitor were provided to the Maliseet Community Consultation Coordinators or other delegates.
- Aboriginal research and content has been included in the Mactaquac Generating Station tours and tour building.
- First Nations students have been hired as tour guides at the Mactaquac Generating Station. Other Aboriginal student support staff has also been hired.

It is anticipated that capacity to support research, communication, technical review and employment will continue throughout the Project.

3.4.2 Public and Stakeholder Engagement

Public and stakeholder engagement was also an integral part of the CER scoping and process. NB Power conducted early and ongoing engagement activities in order to integrate public and stakeholder concerns and information into the CER framework.

NB Power developed a Public Engagement Plan for the Mactaquac Project that was guided by the overarching goal of understanding what was most important to New Brunswickers to help inform and influence NB Power’s 2016 decision-making process on the future of the Mactaquac Generating Station. The objectives of the engagement program were as follows.

- Design and implement an engagement process that New Brunswickers would find accessible, meaningful, honest and credible.
- Achieve broad-based awareness of the important decision regarding Mactaquac Generating Station, the process NB Power will follow to collect feedback, and how public input will be used to influence the eventual decision.
- Provide sufficient and appropriate contextual information, in an easy to understand format, about the decision to be made and what is known about the implications of the Options.
- Frame engagement questions around what is most important to New Brunswickers going forward, rather than choosing which option they like best.
- Host dialogue on the future of the Station that allowed all New Brunswickers to participate.
- Generate informed feedback that will be useful to NB Power in its 2016 decision-making process on the future of Mactaquac Generating Station.

The following principles guided NB Power’s engagement activities with the public and stakeholders about the Mactaquac Project.

- NB Power is committed to engaging interested individuals, public interest advocacy groups, community leaders, and other stakeholders in meaningful conversations where relevant information can be shared and discussed.
- NB Power is ready to openly share information about opportunities and challenges facing it as a public corporation charged with responsibility to deliver reliable, competitively priced electricity in a sustainable manner, and the specific considerations associated with the Mactaquac Generating Station decision.

Did you know?

From the onset, NB Power committed to communicating with interested individuals, stakeholder groups and local communities throughout the life of the Mactaquac Project. The engagement process gave these individuals and groups the opportunity to provide input on the issues and interests that were important to them. These issues and interests will guide the decision on the Preferred Option and any discussions that ensue with the public and stakeholders throughout the life of the Project.

NB Power engaged the public in a variety of ways, including face-to-face meetings at open houses and public information sessions, and through web-based tools such as social media and the Mactaquac Project website (www.mactaquac.ca). The website was also a platform for NB Power to make announcements and provide the public with information about the Project.

NB Power will use information collected during the public engagement process as a decision-making tool when selecting the Preferred Option. Public and stakeholder input will be considered separately from the CER.

- NB Power recognizes this decision affects all New Brunswickers, and as such, will endeavour to generate broad awareness and engagement.
- NB Power is interested in learning more about what stakeholders care about most concerning the future of Mactaquac Generating Station and incorporating New Brunswickers' values in the business decision.
- NB Power commits to keeping participants informed of what was heard during the engagement process and how that input has informed the final decision.
- NB Power will be clear about the parameters of what is up for discussion, within the boundaries of its legislative and regulatory mandates to provide reliable electricity, at low, stable rates, in a financially-responsible manner (*i.e.*, debt/equity ratio), in a manner that complies with environmental requirements, while being respectful of First Nations' rights.

3.4.2.1 Public and Stakeholder Groups

The public and stakeholder groups and representatives identified to participate in the CER included, among others:

- NB Power customers;
- private property owners, community leaders, and tourism and recreation groups and associations that are adjacent to the Saint John River, and NB Power employees;
- permanent NB Power Community Liaison Committees, including the Lower Saint John River Hydro Community Liaison Committee;
- Energy and Utilities Board members and staff, and independent power producers; and
- identified stakeholder groups from the academic community, and environmental non-governmental organizations, businesses, and government.

3.4.2.2 Public and Stakeholder Engagement Methods and Activities

NB Power has logged numerous communications with the public and stakeholders since June 2013. It has used a number of methods for communicating information about the Project and to solicit feedback, questions, and concerns about the Project. The following are some of the methods NB Power has used to engage the public and stakeholders during the CER:

- information materials and sources;
- Mactaquac Project website (www.mactaquac.ca);
- other web tools, including social media and surveys;
- email newsletters;



- open houses, public information sessions, and other meetings with the public;
- on-site tours of the Station (including the addition of a new tour center);
- stakeholder workshops and targeted discussions (e.g., open space technology, citizen science); and
- tracking and responding to concerns and questions of the public.

3.4.2.3 Public Engagement Initiatives Conducted to Date

To date, NB Power has received input from the public in several ways. A summary of the public and stakeholder engagement initiatives conducted to date is provided below.

Mactaquac Project Website

The Mactaquac Project website (www.mactaquac.ca) was established as the primary platform for providing information about the Project and receiving feedback from the public. The website, which is maintained by NB Power and updated regularly, contains information about the Project and the options being considered for the station, links to the CER Report and information about public and First Nations engagement and consultation. The website also provides links to other web tools, including social media and surveys, the ability to sign up for email newsletters and a contact section which allows the public to send questions and comments to a Mactaquac Project inbox.

Information Materials and Sources

In addition to the online material providing information to the public, NB Power has also used several other means of communication including in-person and phone conversations with the public and stakeholders, the review and response to letters from individuals and stakeholder groups, a news conference and the distribution of posters outlining the options for the station. NB Power also established the Lower Saint John River Hydro Community Liaison Committee, which provides an avenue for the community and stakeholders to give feedback on matters related to NB Power and the Project. Project information is regularly shared with members of the Community Liaison Committee, with presentations on key topics provided.

On-site Tours of the Station

NB Power offers tours of the station, including a new tour center, to the public free of charge between the hours of 9:00 am and 5:00 pm daily from May 2, 2016 to Labour Day (September 5, 2016). Numerous tours have taken place over the public engagement period for private groups, groups from educational institutions, stakeholder groups such as the Canadian Rivers Institute (CRI) and the Canadian Nuclear Partners, employees and electrical trainees from local businesses/organizations and First Nations representatives.

Stakeholder Workshops

Targeted sessions were held to discuss key issues of concern relating to the future of the Mactaquac generating station for stakeholders. The session was facilitated by the Mactaquac Project Team and followed a “world café” format. Additionally, email invites were sent to stakeholders, inviting them to

another workshop focused exclusively on fish passage at the Station. This workshop, facilitated by the Mactaquac Project Team, was focused exclusively on fish passage at the Station and included presentations by both the CRI and NB Power staff.

Open Houses, Public Information Sessions, Meetings

Several sessions involving a broad-based, community outreach approach to consultation have been held since the beginning of the engagement period. These sessions took the form of open houses, public presentations and lectures, meetings with public officials and stakeholders, attending conferences and information booths at events. A major thrust of these activities included six public open houses held in October 2015 in the communities of Mactaquac, Nackawic, Woodstock, and Fredericton (2), and at St. Thomas University. . A number of open houses were also held in the same time period in First Nations communities, including at St. Mary's First Nation, Woodstock First Nation and Kingsclear First Nation.

Tracking and Responding to Concerns and Questions of the Public

A draft of the CER Guidelines, which describe the CER process and issues to be considered, was provided to the public for comment before the Guidelines were finalized. During the 45-day comment period on the draft CER Guidelines that ran between November 25, 2014 and January 8, 2015, NB Power received over 50 submissions from the public and stakeholders about the Mactaquac Project in general and the key issues of concern to them.

Additionally, a draft of the CER Report was provided to the public for comment before being finalized. During the eight-month comment period on the draft CER Report that ran between September 21, 2015 and May 31, 2016, NB Power received numerous submissions from the public and stakeholders about the Mactaquac Project in general and the key issues of concern to them. Responses were provided where it was appropriate to do so, and relevant issues were considered and addressed (as appropriate) in the final CER Report.

3.4.3 Summary of Key Issues and Concerns Raised During Aboriginal, Public and Stakeholder Engagement Activities

To date, NB Power has received considerable input from Aboriginal communities and organizations, the public in general, and stakeholders. This shaped the scope and conduct of the CER as well as generally guided the conduct of the Project to this stage and will also shape the decision relating to the Preferred Option and activities that will follow the decision. It would be beyond the scope of this CER Report to provide a comprehensive summary of all issues and concerns raised through various means until this point; a "what was said" document has been prepared to more thoroughly report on the input received, which will be considered separately by NB Power in its decision-making regarding the Preferred Option. However, a high-level summary of the key questions, comments and issues raised as part of the comment process that influenced the conduct of the CER is provided in Table 3.5.

Table 3.5 Summary of Key Issues or Concerns Identified by the Public and Stakeholder Groups During Consultation and Engagement Activities, and Associated Responses

Key Questions, Comments or Issues Raised	Response
Concerns about the CER process; relating to the lack of a direct comparison between the options in the CER Report, and the use of qualitative methods as opposed to quantitative methods.	The intention of the CER is not to provide the reader with a recommendation of the "best" Option, but rather present the reader with sufficient qualitative information on each valued component so that they can be informed as to the consequences of the Option.
Concerns over the public engagement process, including ongoing studies (i.e., MAES, economic analysis) not being complete and available for public comment during the comment period.	To date, the CER and SICR have been the main vehicles for seeking public input on the Mactaquac Project. However, information on other studies (e.g., engineering, First Nations engagement, AAR, aquatic studies) being conducted to inform NB Power's decision was provided at the open houses. Like the CER Report, NB Power will consider these other sources of information in recommending the Preferred Option.
Area of review and group being consulted is too narrow; regional and international implications should be considered.	The area of review for each VC is influenced and determined by expected, future regulatory requirements (e.g., applicable federal and provincial legislation). The area of review is uniquely defined for each VC to provide a representative area for comparing the key issues of concern with respect to each VC.
Concerns about bias in the CER Report against Option 3, as this Option will have a larger number of interactions than the other Options due to the magnitude of change associated with removing a dam and headpond as compared to existing conditions.	While it is certainly not the intention of the CER Report to bias the discussion towards one option or another, Option 3 will result in the greatest extent of change associated with this option. Having stated that, the text of the CER Report has been revisited, and edited as necessary, so as to provide as balanced and unbiased presentation of the potential interactions of all the Options with the environment as possible.
Concerns over the locations of the transportation alternatives presented in Section 2.6.3.	The review of the alternative transportation routes will be completed independently from the Project. The preferred transportation alternative will be selected by the New Brunswick Department of Transportation Infrastructure (NBDTI).
Landowner concerns including changes in the river relating to views, decrease in property values and taxes, groundwater and wells, impact to local businesses and residual negative feelings of individuals impacted by the building of the dam.	Changes to the land use, property values, and community are an important consideration in the decision making process. Social issues identified in the CER Report are discussed in greater detail in the SICR.
Concerns relating to the current land use by First Nations peoples (land being used for berry picking and sweat lodges).	While NB Power has general knowledge of how First Nations have historically used the land to practice their traditional activities, a Traditional Knowledge/Traditional Land Use study has not yet been finalized. Such a study is being developed in collaboration with Maliseet First Nations and will be considered separately by NB Power in its selection of a Preferred Option. It will also inform the EIA of the Preferred Option, once selected.
Request to add climate change as a valued component in the CER Report.	Climate change is a physical phenomenon that is a subcomponent of the Atmospheric Environment, which was chosen as an all-encompassing valued component. This is consistent with current environmental assessment practice, upon which the CER was largely based.

Table 3.5 Summary of Key Issues or Concerns Identified by the Public and Stakeholder Groups During Consultation and Engagement Activities, and Associated Responses

Key Questions, Comments or Issues Raised	Response
What would happen to submerged land and how long would it take the ecosystem to recover should Option 3 be implemented?	Natural re-vegetation of exposed areas may take longer to reach a new equilibrium of the new ecosystem, although experience elsewhere would suggest this begins to occur naturally within one or two growing seasons. Re-vegetation will likely occur more quickly in areas that are hydro-seeded. Of course, it will take much longer for such vegetation to mature (i.e., years to decades).
Concerns about the management of fish passage should Option 1 or 2 be selected.	Decisions related to fish passage will be made under the guidance of the appropriate regulatory authorities, in particular Fisheries and Oceans Canada (DFO), and as informed by the Mactaquac Aquatic Ecosystem Study (MAES).
To what extent will adding fish passage (to Option 1 or 2) benefit diadromous fish populations in both freshwater and marine environments?	The extent to which planned fish passage facilities will achieve success in passing the target fish species is not known at this time. This would be evaluated as part of Follow-up and Monitoring of the Preferred Option, once implemented.
Would the selection of Option 3 result in an increased economic and social value at a regional level as a result of improved fisheries in the Bay of Fundy and the Gulf of Maine?	<p>This statement assumes that Option 3 would improve the fisheries in the Bay of Fundy and Gulf of Maine, which is not known at this stage.</p> <p>The potential economic and social activity arising from any of the Options have only been identified and discussed at a high level in the CER Report. Once the Preferred Option has been identified, further information and studies will be needed to assess its environmental effects in the EIA, including potential economic activity.</p>
Regulatory implications (<i>Species at Risk Act, Fisheries Act</i>)	Specific regulatory requirements for the Options depend on the option that will ultimately be selected, its specific design, and decision making by regulatory agencies, none of which are fully known at this time. These potential requirements will be defined as part of any EIA of the Preferred Option.
Would more ice jams downstream of the station be a concern if Option 3 is selected?	The extent to which Option 3 might result in a greater potential to cause ice jams and related flooding downstream of the Station (i.e., in Fredericton and further downstream) has not been confirmed through modelling; however, it is documented in Section 6 of the CER Report that there was historically a higher incidence of ice jams and related flooding downstream of the dam prior to its construction, and this could occur in the future if Option 3 is selected. The dam is thought to have a moderating effect on ice jams and related flooding downstream—to what extent this would change in the future is not yet fully understood. Downstream water elevations under Option 3 could be more variable with increased potential for flooding compared to current conditions. Further study would be required in support of an EIA of Option 3, if that is ultimately selected as the Preferred Option. Mitigation would be considered to prevent damage to in-stream infrastructure (e.g., bridges and piers).
Concern related to the risk of the generating station being located in a fault zone.	The design and implementation of any of the Options will consider seismicity and the Canadian Dam Association's dam safety guidelines.
In the CER Report, Mactaquac is described in terms of total capacity, but should be discussed in terms of actual performance.	The second paragraph of Section 2.1 of the CER Report provides both the capacity of the Station (670 MW) as well as its annual performance (1.6 TWH/y and supplying 12% of the province's electricity).

Table 3.5 Summary of Key Issues or Concerns Identified by the Public and Stakeholder Groups During Consultation and Engagement Activities, and Associated Responses

Key Questions, Comments or Issues Raised	Response
Will the Mactaquac Biodiversity Facility remain operational if the headpond, which supplies water to the facility, is removed in Option 3?	While the Station does provide a source of fresh water to the Mactaquac Biodiversity Facility, what might happen to that facility under any option is not known to NB Power at this time.
The sediment concerns outlined in the CER Report have been overstated.	The text of the CER Report has been revisited to provide a balanced presentation of the key issues and concerns, given current knowledge.

3.4.4 Next Steps in the Aboriginal, Public and Stakeholder Engagement Program

NB Power will continue to engage Aboriginal communities and organizations, and the public and stakeholders, in relation to the Project and the ultimate decision leading to the selection of a Preferred Option. It is intended that the engagement that was begun to inform NB Power's decision will continue throughout the life of the Mactaquac Project, and in particular during any EIA of the Preferred Option, to guide NB Power into carrying out an environmentally responsible project.

