



**Written submission from the
Kopit Lodge & Elsipogtog First
Nation**

**Mémoire de
Kopit Lodge et la Première Nation
Elsipogtog**

In the Matter of the

À l'égard de la

**New Brunswick Power Corporation,
Point Lepreau Nuclear Generating Station**

**Société d'Énergie du Nouveau-Brunswick,
centrale nucléaire de Point Lepreau**

Application for the renewal of NB Power's
licence for the Point Lepreau Nuclear
Generating Station

Demande de renouvellement du permis
d'Énergie NB pour la centrale nucléaire de
Point Lepreau

**Commission Public Hearing
Part 2**

**Audience publique de la Commission
Partie 2**

May 11 and 12, 2022

11 et 12 mai 2022

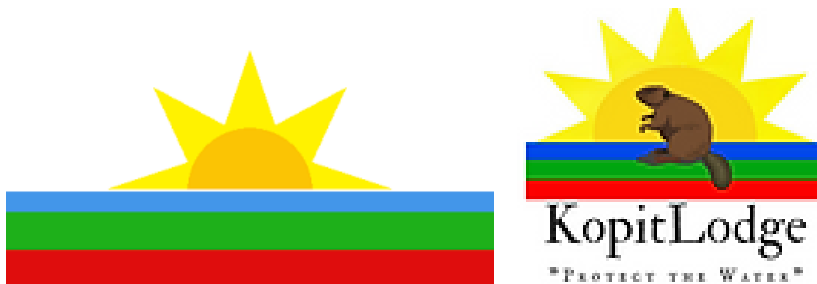


New Brunswick Power Point Lepreau Nuclear Generating Station Operating License Renewal

Written Submission

Submitted by:

Kopit Lodge & Elsipogtog First Nation



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1.0 Introduction

The Point Lepreau Nuclear Generating Station (PLNGS) is a nuclear power plant located on the shores of the Bay of Fundy, 40 km southwest of Saint John, New Brunswick. Owned and operated by the New Brunswick Power Corporation (NB Power, the Proponent), the consolidated license encompassing the site and its operations expires in June of 2022. NB Power has applied to the Canadian Nuclear Safety Commission (CNSC)—the regulatory body which oversees nuclear energy and materials in Canada—to seek renewal of its consolidated license. NB Power is requesting a renewal term of 25 years until June of 2047; no other changes to the license are being requested.

The CNSC is assessing the license application in accordance with its mandates to ensure operations, equipment, and safety measures meet regulatory requirements. The regulatory process involves a two-part public hearing process, which will conclude by June 30, 2022 when CNSC will make a final decision.

Elsipogtog First Nation (Elsipogtog, EFN) is engaged as an intervenor in the regulatory process for this project via its consultation and resources organization Kopit Lodge (Kopit). The PLNGS is located on the traditional lands of *Mi'kma'ki* and has the potential to impact lands and waters over which Elsipogtog, as a community of the Mi'kmaq Nation, holds Aboriginal and Treaty Rights and Title. The purpose of this written submission is to provide a record of Kopit Lodge's technical concerns and recommendations related to the project, and to document potential impacts the project may have on Elsipogtog's rights and interests.

Kopit worked with Tamarack Environmental Associates (Tamarack) to complete a technical review of the relicensing documents and associated materials to identify how operations and management may interact with Elsipogtog's rights and interests. As part of this process, Kopit also undertook a workshop with community members to gather high-level information on perspectives, land use, Indigenous Knowledge, and occupancy regarding the project. The results of the workshop helped inform technical comments and contribute to a documentation of potential impacts to Elsipogtog's rights and interests.

This written submission is being shared with the permission of Kopit Lodge and Elsipogtog. Nothing in this written submission is intended to or shall abrogate or derogate from Elsipogtog's Aboriginal and Treaty rights.

1.1 Elsipogtog First Nation

Elsipogtog is a community of the Mi'kmaq Nation located in present-day New Brunswick. Headquartered approximately 91 km northwest of Moncton, the First Nation was known for many years as “Big Cove” but changed its name to “Elsipogtog”—river of fire—in 2003. With a membership of approximately 3,500 people—roughly 2,700 of whom live on reserve—Elsipogtog community members have used and occupied the lands known as *Mi'kma'ki* since time immemorial with archaeological evidence of Indigenous occupation dating back at least 11,000 years. Community members continue to rely heavily on the lands and waters for carrying out traditional practices.

Between 1760-61, Elsipogtog's ancestors entered into a Peace and Friendship Treaty with the British Crown. The Peace and Friendship Treaties contained no land cession provisions and did not surrender or extinguish Aboriginal rights or title. The Treaties were intended to ensure peace by protecting the Mi'kmaq traditional economy. This included the right to hunt, fish, trap and gather resources, as well as the right to trade and earn a livelihood in their territory. The Peace and Friendship Treaties were not land surrender treaties, and Canadian courts have confirmed this. Rather, the Peace and Friendship Treaties corroborated Mi'kmaq Rights and Title.

Elsipogtog is a member of the Mi'kmaq Grand Council, a traditional form of governance, and is committed to preserving and protecting the natural resources for present and future generations. Elsipogtog continues to hold Aboriginal Rights, Treaty Rights and Aboriginal Title over its lands and waters.

1.2 Kopit Lodge

Kopit Lodge is a grassroots Mi'kmaq organization representing Elsipogtog on consultation and resource development issues. The Speaker for Kopit Lodge, Elder Kenneth Francis, is a co-plaintiff in Elsipogtog's claim for Aboriginal Title (described further in Section 1.2.1).

Kopit's mandate is to protect the earth and to preserve Mi'kmaq culture and heritage for future generations. Kopit (which means *beaver* in the Mi'kmaq language) seeks to assert the rights, interests, and jurisdiction of the Elsipogtog, and is committed to promoting environmental protection, conservation and stewardship of the lands and waters. Kopit is interested in enhancing the socio-economic well-being of members by maximizing economic development initiatives through training, employment, and business opportunities.

Kopit Lodge wishes to be meaningfully consulted, accommodated, and involved in all development within Elsipogtog's Territory.

1.2.1 Elsipogtog Rights and Interests and the PLNGS Relicensing Process

Elsipogtog community members possess inherent and constitutionally protected Aboriginal rights, Treaty rights and Aboriginal Title over lands that may be impacted by the PLNGS Relicensing Process.

Aboriginal rights are inherent rights and are defined under Canadian law as an activity related to a practice, custom or tradition fundamental to the distinctive culture of an Indigenous group claiming that right (UBC Indigenous Foundations, 2009). Section 35 of Canada's *Constitution Act* (1982) recognizes and affirms Aboriginal rights.

Treaty rights include rights deriving from signed treaties; as a signatory of the Peace and Friendship Treaties, Elsipogtog has recognized Treaty rights over *Mi'kma'ki*, including the right to harvest and engage in the commercial trade of traditionally traded goods. The Supreme Court of Canada and the

Courts of New Brunswick have recognized and affirmed the validity of the Mi'kmaq's rights to harvest from their lands and waters.

Aboriginal Title includes the exclusive right of an Indigenous Nation to decide how its territory is used and the right to benefit from those uses. . In 2016, Elsipogtog along with Kopit Lodge filed a claim for Aboriginal Title to a portion of the Mi'kmaq Nation's title lands in Mi'kma'ki, known as *Sikniktuk*. Sikniktuk covers approximately 30% of New Brunswick. The claim maintains that the Peace and Friendship Treaties did not surrender land and that Elsipogtog maintained Aboriginal Title, including the right to use, enjoy and profit from the land. The claim also maintains that the Province has interfered with and unjustifiably infringed upon Elsipogtog's Aboriginal Title and Rights. At the time of filing, Chief Sock noted, *"This claim is about protecting our lands and waters for our children and our future generations [...] We cannot stand by while the government ignores us and makes decisions that threaten the traditional lands of the Mi'kmaq people"* (McQuarrie, 2016).

In 2019, Elsipogtog and Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) signed a Memorandum of Understanding (MOU) to enter negotiations for the recognition of Aboriginal Title, Rights and Treaty Rights, as well as the management of the environment and natural resources in the claim area. Some key components of the agreement highlight the importance of adequate consultation and accommodation for Elsipogtog. The claim area includes lands and waters that may be impacted by the PLNGS.

As an agent of the Crown, CNSC must honorably discharge the duty to consult and accommodate to ensure Elsipogtog rights and interests are protected or accommodated, and justify any infringements on Elsipogtog's treaty rights. Owing to the nature of the project and Elsipogtog's ongoing title claim, under the circumstances, the Crown's consultation and accommodation obligations fall at the highest end of the Haida spectrum, which may require formal participation in the decision-making process and meaningful accommodations (i.e. economic participation).

Additionally, CNSC is a federal regulatory body. The federal government has a statutory obligation under Bill C-15 to, "in consultation and cooperation with Indigenous peoples, take all measures necessary to ensure that the laws of Canada are consistent with [the United Nations Declaration on the rights of Indigenous Peoples (UNDRIP)]". The laws of Canada include the CNSC's regulatory processes, and the project engagement process must align with these UNDRIP commitments.

Mi'kmaq law asserts that everything in life is interconnected. This principle is captured in the Mi'kmaq concept of *Netukulimk*, which espouses sustainability, respectful co-habitation, and economic well-being without jeopardizing the environment. In accordance with this law, Elsipogtog and Kopit Lodge have an interest to ensure the respectful protection of the environment for present and future generations. In addition to the duty to consult and the MOU requirements, Mi'kmaq law compels CNSC to engage with Elsipogtog to ensure the PLNGS adheres to the Mi'kmaq laws that governs the land it is situated on, and to ensure the project does not endanger the integrity, diversity, and productivity of the environment on which the Mi'kmaq depend and for which the Mi'kmaq are compelled to protect.

In sum, Elsipogtog has a right and a responsibility to conserve the environment and has Aboriginal and Treaty Rights and Title over lands that may be impacted by the project. CNSC must uphold the principles of the MOU, and must carry out its obligation to honorably consult and accommodate Elsipogtog, and justify any infringement on Elsipogtog's treaty rights with respect to this project, in accordance with both Canadian and Mi'kmaq law. CNSC must also ensure it recognizes Elsipogtog's right to determine how its lands are used, and to enjoy the economic benefit of its title lands, as recognized in *Tsilhqot'in Nation v. British Columbia* and in accordance with UNDRIP.

1.2.2 Point Lepreau Nuclear Generating Station

PLNGS is a nuclear power plant located 2 km northeast of Point Lepreau, New Brunswick on the Northern Shore of the Bay of Fundy. It was built between 1975 and 1983 by NB Power, a Crown corporation wholly owned by the Government of New Brunswick. PLNGS has approximately 900 employees and a variety of contractors who support the site (NB Power, 2021).

PLNGS is the only operating Canadian nuclear power station located outside of Ontario. The facility consists of a single CANDU-6 nuclear reactor, having a net capacity of 705 MW. The pressurized heavy water reactor uses uranium as its fuel source. PLNGS supplies 39% of New Brunswick's electricity.

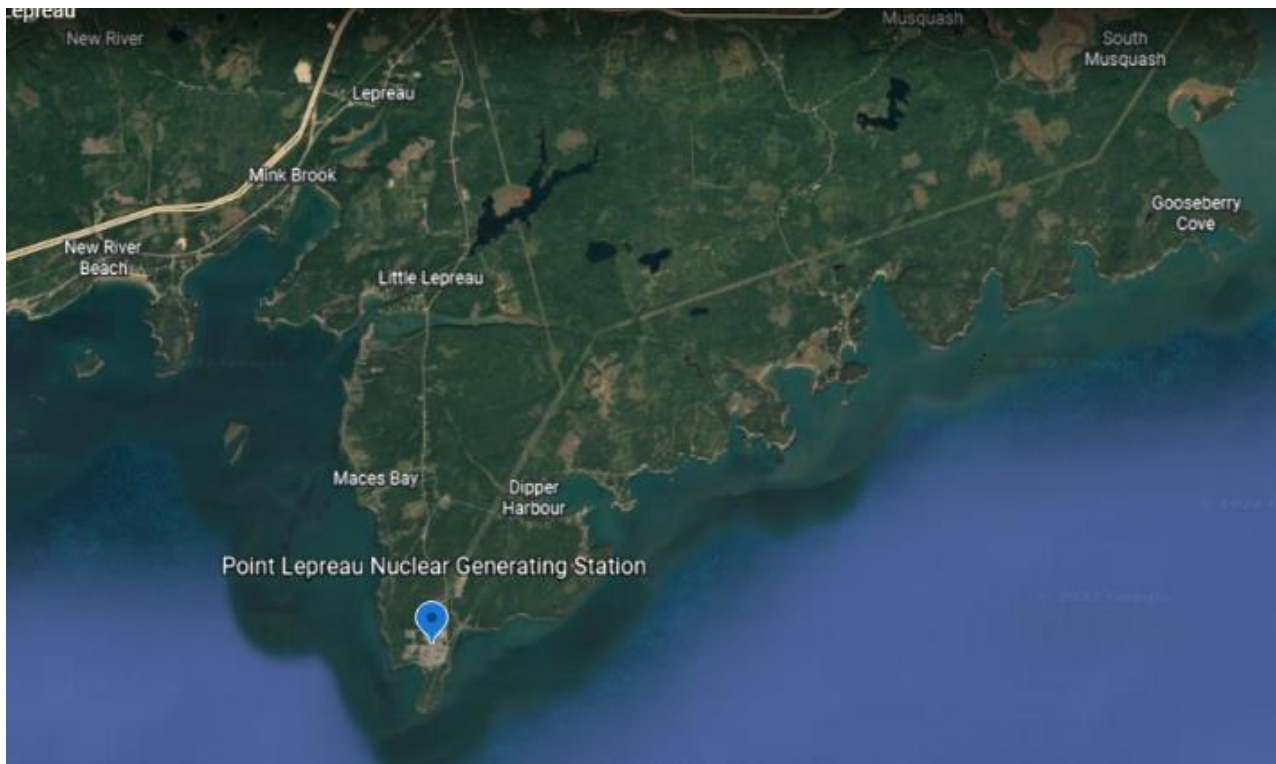


Figure 1 - PLNGS Location

The PLNGS site also includes the Solid Radioactive Waste Management Facility (SRWMF). The SRWMF provides interim storage for high, intermediate and low level solid radioactive waste, including spent nuclear fuel, and retube waste. The SRWMF occupies an area of approximately 83,000 square meters, approximately 1 km north of the reactor building. There is currently no permanent storage facility for radioactive waste in Canada. Plans are in development by the Nuclear Waste Management Organization to develop a permanent site in Ontario but a location has not been finalized.

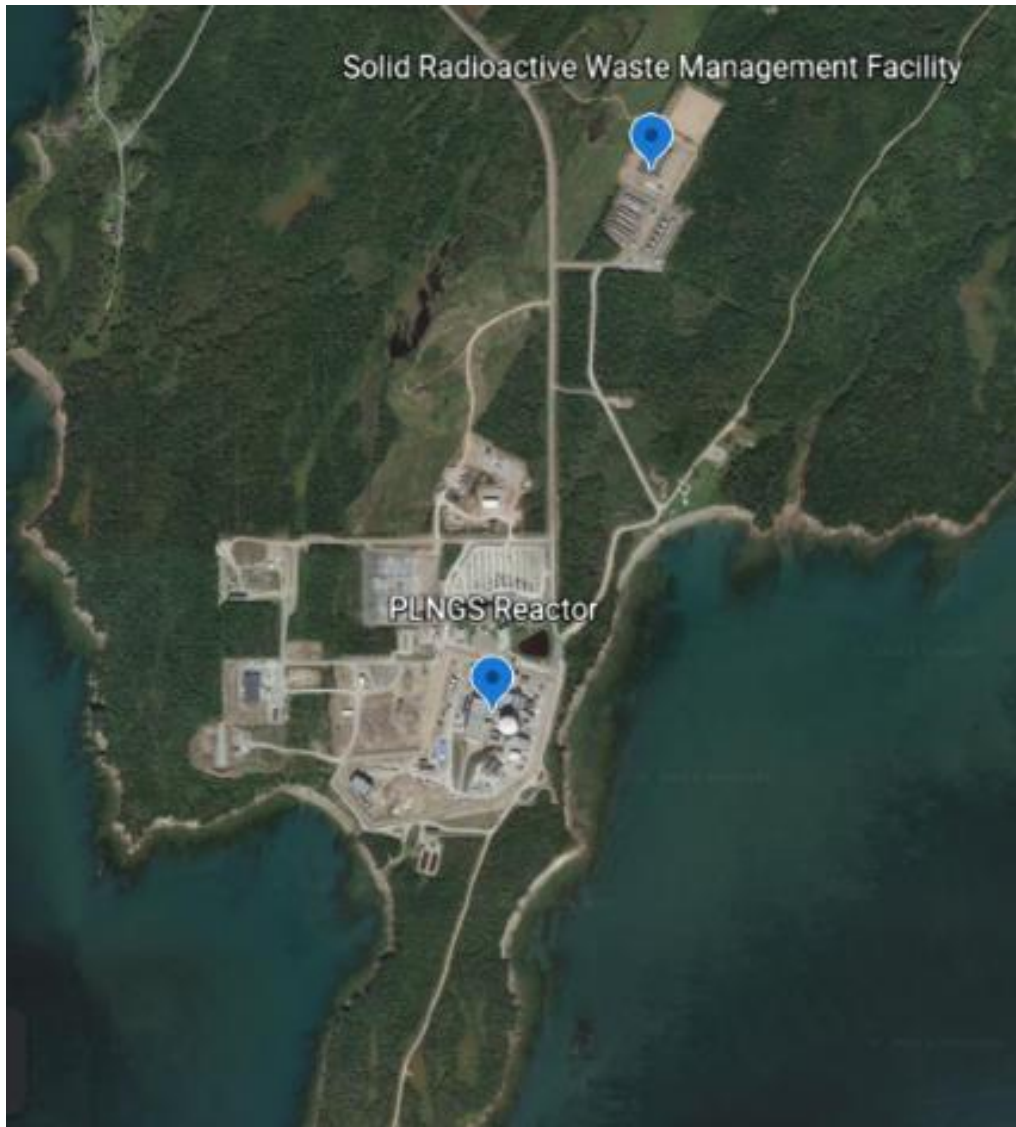


Figure 2 - Site Layout

PLNGS underwent an extensive refurbishment program beginning in 2008 to upgrade the reactor and associated non-nuclear infrastructure. The refurbishment project was approximately 3 years behind schedule and \$1 billion over the original budget. PLNGS returned to commercial operation in November

2012. The refurbishment was said to provide 25 to 30 years of power according to NB Power (CBC News, 2012).

PLNGS has experienced additional issues and shutdowns since 2012, including recently in Q4 2020 and Q1 2021 during the existing CNSC Licence period. Problems with the steam turbine triggered a 40-day shutdown, including a fire, in January 2021 (CBC 3, 2021). PLNGS has been 609 days offline for maintenance or repairs since coming out of refurbishment, this is twice the number of offline days NB Power predicted (CBC 3, 2021).

1.2.3 Historical Impacts of Point Lepreau Nuclear Generating Station

NB Power and the Crown did not consult with the EFN in the decision to build and operate the PLNGS in the unceded Mi'kmaq Territory. Nor have any form of accommodation for impacts to EFN rights and interests been provided. This Crown decisions resulted in an accumulation of nuclear infrastructure and waste in EFN Territory. These impacts have existed and will continue for many thousands of years.

The primary impact to Mi'kmaq people related to PLNGS is the permanent loss of access to a large portion of Mi'kmaq Territory. Since 1975, Mi'kmaq people have been prohibited from exercising their Aboriginal and Treaty rights on the PLNGS site for traditional land use activities such as hunting, fishing, trapping, gathering, as well as for cultural/spiritual purposes, such as sweat lodges, fasting camps, harvest gatherings and other ceremonial purposes.

EFN is not aware whether archaeological research was completed prior to the construction, upgrading or refurbishment of the PLNGS. There is the potential that EFN cultural or archaeological sites may exist within the PLNGS site or were destroyed during construction.

#	Comment	Request/Recommendation
1	PLNGS and associated NB Power infrastructure represent a substantial loss of land for EFN members. This is further exacerbated by environmental degradation caused by the construction, operation, and maintenance of the facility, including waste storage, spills and malfunctions.	<p>NB Power and CNSC must develop a plan to accommodate EFN for past grievances related to PLNGS, including the lack of consultation in siting the facility and environmental and human health impacts caused by PLNGS. This could be addressed within a Long-Term Relationship Agreement or similar.</p> <p>This is consistent with UNDRIP obligations and the requirement to obtain consent from Aboriginal title holders for projects</p>

		on their lands. Aboriginal title as an inescapable economic component.
2	It is unclear (and assumed unlikely) whether an archaeological assessment was undertaken during the original construction of PLNGS and associated NB Power infrastructure. The construction of the facilities may have resulted in the disturbance and/or destruction of archaeological materials of importance to Indigenous communities.	NB Power and CNSC should indicate what if any archaeological work has been done near the facilities and provide Kopit Lodge with any archaeological assessments that were undertaken for review and comment.

1.2.4 Current Impacts of Point Lepreau Nuclear Generating Station

The presence and operation of the PLNGS poses ongoing risks to EFN and its members. The primary ongoing impact to the members of EFN is the loss of access to the lands and waters of the PLNGS site itself. For safety and security reasons, access to the PLNGS is strictly controlled, and all members of the public and Aboriginal peoples, including the people of the EFN, are prohibited from the site (except as employees, contractors, or visitors). EFN members are not able to practice traditional activities such as camping, hunting, fishing, and gathering plants and medicines. Engaging in these activities is a critical component of the identity for many members of EFN. Being able to participate in these activities represents a connection with traditional ways of living and the ancestors of EFN’s members. Moreover, the transmission of traditional ecological knowledge from person to person occurs while on the land. While there are other places where these activities can occur, the loss (and ongoing exclusion) of EFN members is nonetheless significant.

In the event of any major accidents or malfunctions, the impacts to the health of EFN members from the PLNGS could be dire. These could range from mild exposure to nuclear radiation, contributing to health effects, including certain cancers, to acute poisoning and death. While the risk of such an accident or malfunction is very low, it is nearly impossible to predict.

Due to the ongoing operation of the PLNGS site, EFN members will experience the following impacts:

- Loss of access
- Inability to practice traditional land use activities (e.g., hunting, fishing, commercial fishing, trapping, camping, gathering, etc.)
- The release of deleterious and radioactive substances through air and water emissions from the PLNGS site.
- Psychological impacts
 - Concerns of land users consuming potentially contaminated wild foods

- Concern of individuals who live or exercise rights near the site regarding the risk of major accidents or malfunctions

2.0 Community Workshop

Kopit Lodge held an internal workshop with the support of Tamarack Environmental on March 11, 2022 to review the PLNGS Project and licensing process with community members and to seek input on the review process. The structure of the workshop included a presentation led by Tamarack followed by a discussion and short mapping exercise. In total, seven community members participated in this workshop, including Elders, youth, and land users of both genders.

The discussion portion of the workshop was semi-structured, and consisted of the following questions:

- *What are your initial thoughts and questions about the project?*
- *What role should EFN and its members play in the ongoing operation and monitoring of the power plant?*
- *Do you have any suggestions you would like to make to the regulators about this project?*
- *Is there anything else you would like to share or any other questions you would like to record?*

During the mapping exercise, which utilized ArcGIS and Survey123, participants were asked about their knowledge of any contemporary or historic cultural sites near the PLNGS, their knowledge of any ecological sites, and any harvesting they carried out in the area. Critically, the values mapped here are limited and should **not** be viewed as a comprehensive record of Elsipogtog's knowledge or use of the area. Only ~0.5 hours were able to be dedicated to the mapping exercise, and there were many sites that participants preferred to discuss rather than map. The purpose of the map is merely to present a high-level snapshot of some of Elsipogtog's use and knowledge in the area; a more comprehensive land use and occupancy study is required for more detailed and rigorous results.

The workshop results presented here are not intended to nor shall abrogate or derogate from Elsipogtog First Nation's Aboriginal and Treaty rights. Elsipogtog retains ownership, control, access and possession (OCAP®) of all information presented.

2.1 Workshop Results

2.1.1 Participant Comments, Questions and Recommendations

Workshop participants shared a variety of perspectives, questions and recommendations they have related to the Project. Some of these comments/questions were technical in nature, while others were more focused on history and consultation. The comments, questions and recommendations are organized into themes below. Mapping results covering some of the same themes can be found in Section 2.1.2.

History and Occupation:

Participants emphasized that the location of the PLNGS is in an area that has been extensively used historically. Saint John area (or the Three Sisters) and Grand Manan were two of the biggest gathering places for the three Indigenous nations in the area historically, where community members would come to celebrate and trade. As one participant put it, PLNGS is located directly overtop the historical “TransCanada highway” of the Mi’kmaq people.

PLNGS is situated next to present-day “Indian Cove,” which participants stressed speaks to the history of the area. Participants discussed how the entire coast of the Bay of Fundy was historically used and occupied by Indigenous ancestors, and this is reflected in the archaeological record. The northern coast of the Bay of Fundy, including near the PLNGS has quartz and other mineral outcroppings that were used for tool production, and arrowheads and other artifacts have been found throughout the area.

In addition to being historically significant, participants noted that the area is still used to some degree for such things as sweet grass harvesting and porcupine quill harvesting.

Some of the specific questions participants shared related to history and occupation in the workshop include the following:

- *Was there an archaeological assessment done on the site originally?*
- *What does NB Power do if they come across artifacts? Is there a process defined and are Elders involved?*
- *Is there a process where First Nations are given sweet grass or ash if they are disturbed or have to be removed?*

#	Comment	Request/Recommendation
3	The operation of the Project may result in the encounter of archaeological and traditional use sites of Elsipogtog, which may impact the community’s rights and interests.	Kopit recommends that any discussions regarding a Long-Term Relationship Agreement include as part of their discussions having Knowledge Keepers present on any independent environmental advisory program, and that this program include as its mandate the consideration of archaeological and traditional use sites and resources. See section 4.0. for further information.

Consultation and Accommodation

When PLNGS was originally constructed, Elsipogtog was not consulted. Participants discussed how the construction of the Project, its operation and storage of nuclear waste without consultation is an infringement on their rights and interests: PLNGS has taken up land and impacted community members' actual and perceived ability to use the lands and waters. One participant described this as resulting in an economic impact to Indigenous people, causing Indigenous communities to become poorer as it infringes upon their harvesting practices.

Several participants noted that Indigenous communities seem to pay more for electricity than non-Indigenous communities, which raised additional questions regarding consultation and accommodation.

As a measure of accommodation, participants suggested the need for an Indigenous Knowledge Study to further document and understand impacts of the Project, as well as a Long-Term Relationship Agreement to address past grievances and outline and formalize the future relationship. Specific requests raised by participants include the desire for jobs, environmental oversight, reduced power costs and monitoring.

Some of the specific questions participants shared related to consultation and accommodation include the following:

- *Does PLNGS have an active Indigenous recruitment process?*
- *How are Knowledge Keepers engaged at PLNGS in decision-making?*
- *Did any of the initial impact studies involve Indigenous participation?*
- *Is the engagement with Indigenous communities during this regulatory process a 'tick-box exercise'? Will the Project get approved regardless of what the Indigenous communities believe? What is the government's ability to actually understand and respect First Nations?*
- *The initial construction and subsequent operation occurred without our initial consultation or consent – how is NB Power/the Crown planning to mitigate that?*
- *Are Indigenous communities involved in the mining of uranium?*

#	Comment	Request/Recommendation
4	Elsipogtog has never undertaken a comprehensive Indigenous Knowledge study of the area where the PLNGS and associated infrastructure are located. A comprehensive Indigenous Knowledge Study would be helpful in allowing Elsipogtog to understand its community members' use, occupancy and	Kopit recommends that CNSC and NB Power support, seek and consider Indigenous Knowledge of the Study Area from Elsipogtog.

	<p>knowledge of the area. This information would also be helpful in informing any future monitoring efforts, studies and regulatory decisions, and should be considered in equal standing with scientific knowledge. The results of such a study would be helpful to more holistically inform Elsipogtog of the impacts the Project may have on its rights and interests.</p>	
5	<p>Elsipogtog was never originally consulted during the planning, construction and operation of the Project. The Project has resulted in impacts on the community's rights and interests, and community members have an interest in addressing impacts to economics and the environment.</p>	<p>The development of a Long-Term Relationship Agreement should address past, present and future impacts. The LTRA could also include provisions for job creation, reduced power costs, and Kopit's role in an independent environmental monitoring. See section 4.0. for further information.</p>

Ecological Knowledge and Technical Comments

Workshop participants shared their ecological knowledge of the area. Participants noted that there is sweet grass growing near the PLNGS, and discussed the important habitat the Bay of Fundy provides, which they said hosts the largest lobster nursery in the world. Other species of importance participants noted include stripe bass (which migrate through the area), blue fin tuna, white sharks and North Atlantic right whale.

Participants commented that they did not support a 35-year licensing process as it could pose a risk to the environment; less formal regulatory checkpoints means there are less opportunities for intervenors to comment and provide input on changing technology, geopolitics, etc.

To increase confidence in the Project, participants suggested an environmental advisory and oversight committee with all three nations represented. Kopit noted that they have been engaged by NB Power and intend to put forward a representative for the Independent Environmental Monitoring Program.

Some of the specific technical questions participants raised include the following:

- *Is there any process for monitoring if radioactivity is being released into the Bay of Fundy and what, if any, impacts it may be having?*
- *Were there any studies done on the possibility of a major malfunction and the effects that would have? What is the risk assessment and what factors do they consider?*

- *Did the 2011 incident impact the environment in any way?*
- *How is radioactive waste stored?*
- *What is the volume of radioactive waste PLNGS holds compared to other NGS in Canada?*
- *Even though the radiation levels are below regulations, what, if any, are the short- and long-term effects of the existing levels on humans and the environment?*
- *What is the mesh size of the intake pipe, and what if any impacts does this have on fish spawning?*
- *What is the location of the tritium outflows?*
- *Have there been any studies on the effects on fisheries?*
- *Has any scientific research on the impacts of the PLNGS involved First Nations?*

#	Comment	Request/Recommendation
6	Community members have numerous questions related to the Project and its operation that may best be addressed in a workshop format with CNSC/NB Power.	Kopit recommends that CNSC and NB Power coordinate to provide annual presentations to Elsipogtog about the Project, and to receive and address community questions.
7	Elsipogtog members rely on the environment for carrying out rights-protected activities. Elsipogtog has an interest to maintain the environment for current and future generations; the community would like to participate in all monitoring activities and would like to have representation on the CNSC Independent Environmental Monitoring Program (IEMP).	Kopit recommends the CNSC and NB Power enter into discussions with Kopit to determine Elsipogtog's role in participating in the IEMP and related monitoring activities. This should be discussed as part of Long-Term Relationship Agreement discussions, as discussed further in section 4.0.
8	Community members rely on the fisheries in the Bay of Fundy to support traditional lifestyles and earn a moderate livelihood. Any potential impact the Project may have had on fisheries is of interest to Elsipogtog.	Kopit requests an update on the potential impacts the Project has had/may have in the future on fisheries. Please provide Kopit with a copy of all reports and studies related to fisheries for review.
9	The uptake of seawater into the facility poses potential risk to fish (inclusive of	Kopit requests additional information regarding the intake velocities/volumes, mesh size of the

	fish and shellfish) inhabiting and spawning within the Bay of Fundy.	intake pipe and any impacts that have been noted to fish, fish spawning, or eggs.
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2.1.2 Mapping Results

The below map and table depict results of the brief mapping exercise that occurred during the workshop. As previously discussed, the results are not comprehensive, nor are they representative of the entirety of Elsipogtog’s knowledge and use in the area. These results do not offer the specificity, detail or rigor that would be present in a comprehensive Indigenous Knowledge study. The map and table below merely depict some initial locations of interest from Elsipogtog workshop attendees; the details in the map can be cross-referenced with the items in the table.

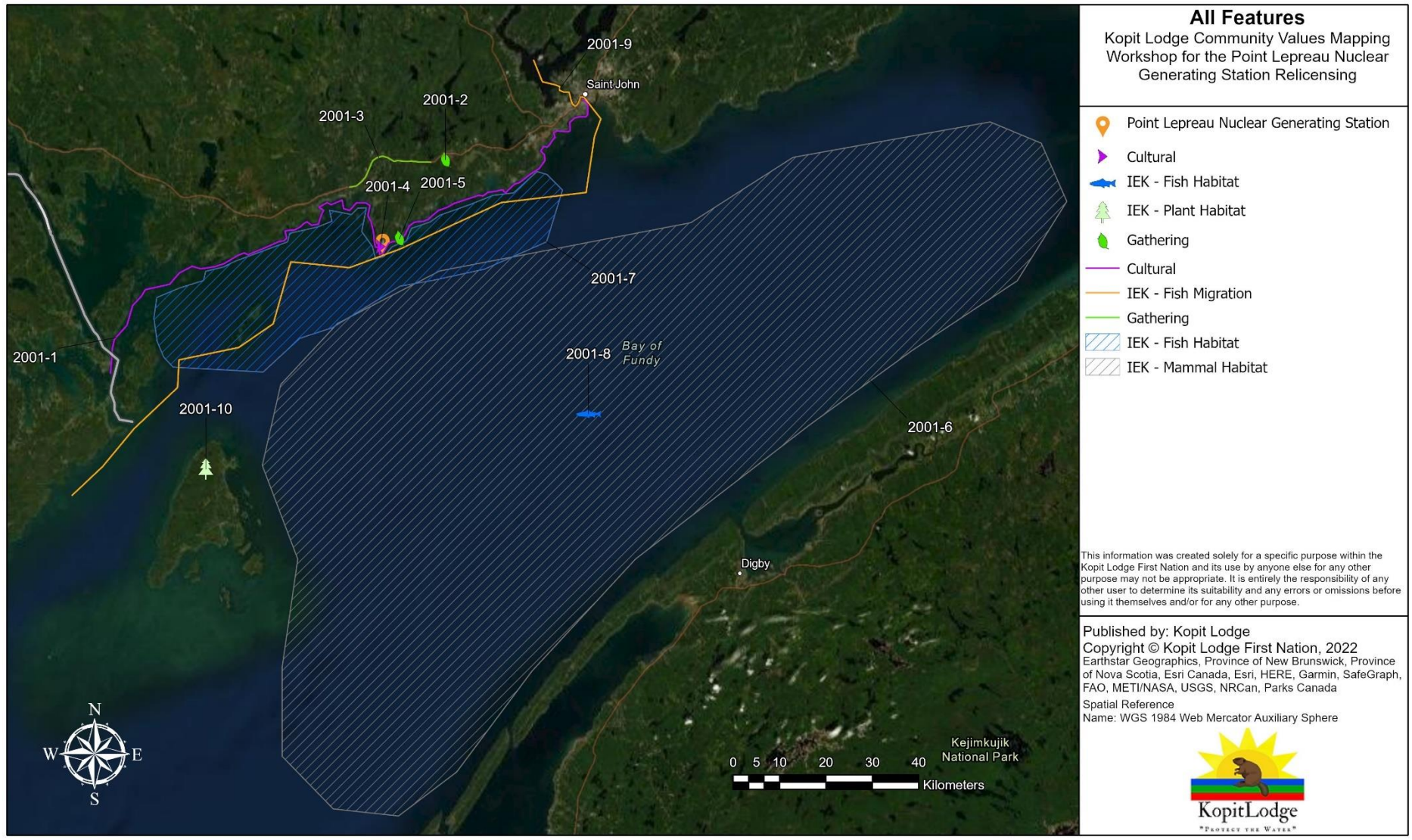


Figure 2 Kopit Lodge Community Values Mapping Workshop for the Point Lepreau Nuclear Generating Station Relicensing

Table 1 Qualitative data associated with each mapped feature in Figure 2

Map Cross Reference	Type	Subtype	Time Period	Season	Notes
2001-01	Historical trails		Both more and less than 10 years ago	SP, Su, F	<p>This is an access route that was used for generations. Mi'kmaq people would travel along this for trade and travel. People would stop, stay, hunt, and fish all along the coastal areas.</p> <p>This would have been an important route between the Three Sisters Area (near modern day St. John) and other areas, as far down as Boston, USA.</p> <p>This is just one route that is being used to represent the many diverse routes that people would have traveled and stayed throughout this area.</p> <p>Modern use in this area does not necessarily follow the exact same route. Often people will now use roads and other methods of transportation.</p>
2001-02	Gathering	Sweet grass	Both more and less than 10 years ago	Su, F	<p>This entire area is important for sweetgrass gathering. This point is just used to show an approximate area.</p>
2001-03	Gathering	Porcupine quills	Less than 10 years ago	Sp, Su, F	<p>One of the participants at the workshop gathers porcupine quills frequently all along the highway between Elsipogtog and St. Andrews. The track is used to demonstrate the general area of use.</p> <p>Quills are used for art projects, like baskets, medallions, and clothing.</p>

2001-04	Point of Interest		Unknown		<p>This area is named "Indian Cove" and is noted by workshop participants as suggesting that this area has been used by Indigenous people.</p> <p>In reality, Mi'kmaq ancestors would have used the region extensively as they traveled the land.</p>
2001-05	Gathering	Quartz and other minerals			Quartz and other resource outcroppings used for spearheads, arrows, and axes can be found along the coast. These materials occur in this location and all along the coast towards Point Lepreau.
2001-06	Mammal habitat	North Atlantic Right Whale			Important habitat for North Atlantic Right Whale.
2001-07	Fish habitat	Lobster			Important lobster grounds and nursery areas.
2001-08	Fish habitat	Great white shark			Endangered great white shark habitat.
2001-09	Fish migration	Striped bass			Striped bass migration route. The bass come up from the eastern United States and go into the major rivers, including St. John River. This is an important fish species.
2001-10	Plant habitat	Sweet grass	Both more and less than 10 years ago	Sp, Su	Important sweet grass harvesting areas on Grand Manan for many participants. This is an approximate area.

3.0 Kopit Lodge Review of NB Power Written Submission & CNSC Staff Report

Kopit Lodge has completed a review of the *NB Power Written Submission for the Renewal of the PLNGS Power Reactor Operating Licence* (CMD 22 H2.1) (“NB Power Report”) and *CNSC Staff’s Licence Renewal New Brunswick Power Corporation Point Lepreau Nuclear Generating Station - Commission Hearing Pt 1* (CMD 22 H2) (“CNSC Staff report”). The review is focused on how the PLNGS interacts with EFN rights, land use, sacred sites, values and health. Kopit Lodge with support from EFN Leadership and community members informed the scope of the review through internal meetings and the Community Workshop.

The following sections outline a series of comments and recommendations to NB Power and CNSC on behalf of Kopit Lodge and EFN. The review focused on select Safety and Control Areas (SCAs), consultation/engagement, and other matters of regulatory interest to Kopit Lodge and EFN including:

- Duration of License
- Indigenous Consultation
 - Duty to Consult and Accommodate
- Environmental Protection
 - Fisheries Act Authorization
- Waste Management
- Emergency Management and Fire Protection
- Radiation Protection
- Small Modular Reactors

3.1 Indigenous Consultation

NB Power has integrated Indigenous consultation and engagement into the operation of PLNGS. As the regulator, and agent of the Crown, the CNSC also has responsibilities to consult with Indigenous people. Since PLNGS is located on the traditional territories of the Mi’gmaq Nation, the Wolastogey Nation of New Brunswick (WNNB) and Peskotomuhkati Nation; both NB Power and CNSC have consultation requirements to various First Nation communities, including Elsipogtog First Nation. NB Power acknowledges consultation activities with EFN through Kopit Lodge and describes “regular engagement” of activities conducted at PLNGS (NB Power, 2021).

According to NB Power, a “Strategic Approach to First Nations Affairs is built upon three elements: engagement, education, and employment. PLNGS is committed to ensuring a welcoming and supportive environment of respect, recognition and inclusion that embraces and values diversity” (NB Power, 2021). NB Power has a First Nations affairs department which oversees much of the internal engagement activities.

NB Power describes a variety of Indigenous engagement activities in their Written Submission including:

- Community Meetings
- Technical and Engagement Meetings with NB Power and CNSC Staff
- Leadership meetings
- Cultural Awareness Training for staff and contractors
 - Material developed by First Nations employees within NB Power and reviewed by elders of the Wolastogey and Mi'kmaq Nations.
- Community lead medicine walks,
- Collaborative environmental and safety monitoring
- Education and awareness on nuclear energy, new technologies, environmental monitoring and waste
- Formalized capacity funding agreements for staff and engagement
- Procurement Information Session
- Newsletter and Online Communication

NB Power has negotiated formalized capacity funding agreements with both the Wolastogey Nation in New Brunswick and Mi'gmawe'l Tplu'taqnn Incorporated (MTI). NB Power states "the capacity funding agreements are uniquely tailored to suit each organizations needs. The agreements provide funding to support/create positions within the First Nations organizations, fund capacity to host and attend engagement meetings and provided opportunities to host community information sessions" (NB Power, 2021).

NB Power has integrated some First Nation communities into the environmental monitoring program of the PLNGS by independent First Nations field monitoring positions for the Mi'gmaq Nation, Wolastogey Nation and Peskotomuhkati First Nations. "The field monitors work alongside NB Power employees and contractors and share their knowledge and perspectives, leading to well-rounded field reporting which is shared openly with the First Nations Communities" (NB Power, 2021). The report does not specify which communities are represented and how many positions exist.

The CNSC Staff report describes consultation activities undertaken by the regulator related to PLNGS. This includes routine engagement sessions with flexible meeting agendas. CNSC staff have also conducted other engagement activities including facilitating a tour of the CNSC lab in Ottawa, collaborating on the Independent Environmental Monitoring Program (IEMP) to select appropriate samples, and visits to the Nations' communities, offices, and cultural centers. It is unclear in the CNSC Staff report what communities or entities participated in these engagement activities and the frequency of the activities.

The CNSC Staff report concludes that the PLNGS license renewal "does not include any new activities that could cause new impacts on the environment, or changes in the ongoing licensed activities at the Point Lepreau NGS site, CNSC staff conclude that the license renewal will not cause any new adverse impacts to any potential or established Indigenous and/or treaty rights" (CNSC Staff, 2021). CNSC staff

states that “there are no concerns that are directly related to the license renewal application” (CNSC Staff, 2021).

3.1.1 The Duty to Consult and Accommodate

“The common-law duty to consult with Indigenous Nations and communities applies when the Crown contemplates actions that may adversely affect potential or established Indigenous and/or treaty rights. The CNSC ensures that all its licence decisions under the Nuclear Safety and Control Act (NSCA) uphold the honour of the Crown and consider Indigenous peoples’ potential or established Indigenous and/or treaty rights pursuant to section 35 of the Constitution” (CNSC, 2021)

In the CNSC assessment report of NB Power’s license application, CNSC staff have determined that the license application will not cause any new adverse impacts to established Indigenous rights and/or treaty rights (CNSC Staff, 2021). This assessment is based on the PLNGS being an existing site with no changes to existing license conditions or the facility’s footprint. As a result, CNSC staff are of the opinion that the decision on the license renewal for PLNGS before the Commission does not raise formal requirements for the Duty to Consult under REGDOCS 3.2.2. (CNSC Staff, 2021).

However, what this determination fails to acknowledge is the complete absence of consultation or accommodation when the site was initially proposed and developed. This includes putting in place appropriate accommodations, mitigations, and addressing the cumulative effects the site has had on Mi’gmaq people. This also fails to acknowledge the extensive maintenance and upgrading work proposed at PLNGS over the 25-year license period. The site also stores significant quantities of high, medium and low-level waste. The operation of the PLNGS has the potential to impact the environment and health of Mi’gmaq people. Therefore, EFN believes the Duty to Consult and Accommodate is triggered by this license application and the continued operation of PLNGS.

Mi’gmaq people have always had a very close connection and reliance on the lands and waters for subsistence and cultural well-being. This connection to the land, combined with Mi’gmaq peoples’ established Aboriginal and Treaty rights demonstrate how critically important it is to adequately consult and accommodate Mi’gmaq people in the PLNGS license renewal process.

#	Comment	Request/Recommendation
10	In Section 4.1.1 of the CNSC Staff Written Submission the report states that Mi’gmawe’l Tplu’taqnn Incorporated (MTI) represents the nine Mi’kmaq communities in New Brunswick. This is not correct, as Elsipogtog First Nation is independent of MTI and represented by	CNSC Staff should ensure that all consultation activities related to Elsipogtog First Nation occur through Kopit Lodge. This should occur at the same frequency and depth as consultation with other Mi’gmaq communities in New Brunswick.

	Kopit Lodge for consultation and engagement activities.	
11	EFN strongly disagrees with CNSC staff’s conclusion that the Duty to Consult is not triggered by this license application, and the notion that the rights of EFN members will not be impacted by PLNGS over this 25-year license period.	The Duty to Consult must be formally triggered. CNSC and NB Power must develop an appropriate consultation and accommodation plan to address the past, present, and future impacts to EFN members and their rights. In accordance with the Crown’s consultation obligations and UNDRIP.
12	Elsipogtog First Nation does not currently have an Independent Environmental Field Monitor position for the community to participate in PLNGS monitoring and to contribute Mi’gmaq Knowledge. This would increase transparency, understanding, and confidence in how PLNGS is monitored.	Establish an Independent Environmental Field Monitor position for Elsipogtog First Nation.
13	There is currently no formal capacity funding agreement in place between Elsipogtog First Nation and NB Power. There is a need in the community for funding to support community staff, engagement events and workshops to develop a better understanding in the community about PLNGS and other NB Power assets. NB Power has similar agreements in place with other Indigenous groups.	Develop a formal capacity funding agreement between NB Power and Elsipogtog First Nation to foster greater participation, engagement, and understanding in the community about PLNGS and NB Power activities.
14	CNSC is currently in negotiations with the Wolastogey Nation on a Terms of Reference (TOR) for meaningful long-term and routine engagement. The TOR will outline a process for routine consultation and engagement with the CNSC and the methods that the CNSC will use to meet the identified needs. CNSC staff states they remain open to	Elsipogtog First Nation and Kopit Lodge request to commence negotiations with CNSC on a Terms of Reference for long term consultation, engagement and capacity funding.

	establishing a TOR with interested groups.	
15	We acknowledge NB Power and CNSC engagement efforts with Indigenous groups and recognize the progress. However, there is a higher level of engagement for tribal council entities rather than Individual rights bearing First Nations, including Elsipogtog First Nation.	<p>We recommend Elsipogtog First Nation and Kopit Lodge are engaged to the same depth and breadth as other First Nation groups in New Brunswick. As an independent government, it is important we are meaningfully consulted and provided the same opportunities as other Indigenous groups in New Brunswick.</p> <p>We ask that moving forward Elsipogtog First Nation and Kopit Lodge are engaged and provided reasonable to participate in:</p> <ul style="list-style-type: none"> • Medicine walks • Environmental monitoring • Ceremonies • Leadership meetings • Elders and Indigenous Knowledge input • Consultation activities • Site events or drills • Procurement Information Sessions • SMR Engagement
16	NB Power states that “PLNGS does not have any major projects scheduled that impact its duty to consult with First Nations” (NB Power, 2021). Elsipogtog First Nation believes the existence and operation of PLNGS and associated environmental and safety impacts trigger the duty to consult and accommodate.	A Long-Term Relationship Agreement should be developed to formally address past, current and future impacts of PLNGS. This would properly fulfill the Duty to Consult and Accommodate. THE LTRA would include a consultation and communication protocol, roles and responsibilities for both parties and socio-economic considerations.

3.2 Environmental Protection

Environmental Protection SCA covers five specific areas, including:

- environmental management system (EMS)
- effluent and emissions control (releases)
- assessment and monitoring
- protection of people
- environmental risk assessment

NB Power operates the PLNGS under an Environmental Management System (EMS) that has been certified under ISO 14001 and is compliant with the CSNC Environmental Protection Policies, Programs and Procedures (REGDOC 2.9.1). The EMS is used to manage and track activities that may impact the natural environment. NB Power tracks environmental performance day-to-day while an annual audit is completed as part of the ISO certification requirements.

The EMS covers a variety of topics to prevent the emissions of radioactive and other hazardous substances; reduce wastes generated on-site; and prevent environmental impacts. This includes managing emissions, spills, waste, hazardous materials, and radioactive contaminants, among other things. The EMS also includes provisions for monitoring radioactivity, off-site radiological monitoring, and studying effects of fish due to impingement and entrainment.

In addition to their EMS, NB Power has measures in place to ensure the protection of the public. This includes requirements under provincial licenses that provide conditions on effluent discharge. Part of these conditions ensure that appropriate sewage management is in place. NB Power operates a membrane bioreactor filtration unit which is used to treat sewage prior to discharge. To-date there have been no exceedances of license conditions.

NB Power also conducts regular Environmental Risk Assessments (ERA) to evaluate the potential risk of exposure to humans, plants, and wildlife from operations. This includes the characterization of contaminants of different media (air, soil, sediment, groundwater, and surface water [freshwater and saltwater]) on site and in the surrounding area, an evaluation of pathways which contaminants may take from the PLNGS, and an evaluation of the risk posed to human and ecological receptors. The ERA is used as a foundation for the development of the environmental protection measures and the Environmental Monitoring Plan (EMP) for the site. The most recent ERA study was completed in 2020. The results show no change in the environmental risk associated with PLNGS. However, as part of the study, several recommendations were put forward to continually improve the environmental management on site.

Releases from the PLNGS, including liquid effluent and gas emissions, are managed under the *Approval to Operate* (which is one component of the current license renewal). All spills are tracked and reportable spills are communicated to the Department of Environment. Radioactive liquid wastes are stored and sampled. If they meet appropriate guidelines (the Derived Release Limits) they are discharged with the cooling water.

Emissions to air from the reactor and spent fuel bay is filtered through high-efficiency particulate filters and charcoal filters before being released through the exhaust stack. Tritium (³H a radioactive isotope of hydrogen) is partially recovered through a vapor recovery system.

Throughout the previous license period (2017-2022) the average releases of both liquid effluent and airborne emissions have been well below of the Derived Release Limits: 9.26E-2% DRL for air emissions and 5.41E-3% DRL for liquid effluent.

Based on the review of the NB Power application, previous documentation, and performance, the CNSC staff have concluded that Environmental Protection program for PLNGS is satisfactory on all areas considered.

#	Comment	Request/Recommendation
17	<p>NB Power has submitted an application to renew the consolidated license for both the PLNGS and the SRWMF for 25-years. The CNSC staff has reviewed the application and determined that the need for 25 year licence period was not substantiated but has nonetheless recommended a 20-year term for the renewed licence.</p> <p>While there is no specific license duration identified under the <i>Nuclear Safety and Control Act</i> or associated regulations, the 20-year term would still be precedent setting. This 20-year term would allow PLNGS to operate until June 2042 which is the end of the maximum proposed life of the plant (based on the refurbishment completed in 2012 that was intended to extend the life by 25-30 years). This leaves little room for error in estimates of stability and longevity for the life of the station.</p> <p>Over the next 20-25 years it is expected that many factors that will influence the safe operation of the PLNGS may change. This includes:</p>	<p>Elsipogtog First Nation and Kopit Lodge recommend that a term of 10 years be provided for the consolidated license of the PLNGS and SRWMF. This is double the previous tenure but would provide a more reasonable period for review during relicensing. Moreover, it would then position the PLNGS to be able to require only one more renewal of 10 years to take the station to the expected end of life in 2042.</p>

	<ul style="list-style-type: none"> • Technologies for nuclear power generation; • Technologies for nuclear waste storage and management; • Knowledge related to human and ecological health regarding exposures to radioactivity; • National, international, and local political conditions; • Public concerns, perceptions, and considerations related to nuclear power and safety; and • Climate change and risks associated with extreme weather (e.g. storms, forest fires, storm surges, etc.). <p>The license renewal offers a meaningful period to reflect on these (and other) factors to ensure the safest and most responsible management of the PLNGS. As such, the term of license must be of an appropriate length so that these can be considered.</p>	
<p>18</p>	<p>NB Power has described in general some of the actions that are being taken to monitor and protect the environment. This includes the Environmental Risk Assessment, monitoring of effluent and emissions, and the Radiation Environmental Monitoring Program (REMP). Unfortunately, it is difficult to evaluate the adequacy of these programs without mapping information to show the locations and scale of the monitoring.</p>	<p>Elsipogtog First Nation and Kopit Lodge request that NB Power provide maps associated with monitoring programs showing:</p> <ul style="list-style-type: none"> • locations for liquid effluent release; • locations for air emissions release; • monitoring and sampling locations for effluent/emissions monitoring; and • monitoring locations for air, water, soil, and biota associated with the REMF.
<p>19</p>	<p>Emissions at the PLNGS appear to be well below the Derived Release Limits (DRL) for radioactive materials in airborne and liquid effluent. NB Power has stated that on average these emissions are well below CSA</p>	<p>EFN is concerned that the average emissions for airborne and liquid effluents obfuscate the true story of radioactive contamination at PLNGS. For example, spikes of contamination</p>

	<p>N288.1-08 guidelines. Unfortunately this information does not include any detail about what the calculated DRLs for the PLNGS are. Nor is there any information about specific monitoring results.</p>	<p>that approach or exceed DRL would not be apparent by reporting only the average.</p> <p>EFN requests that NB Power provide detailed data (in tabular and graphical form) showing releases of radioactive contamination in air and water over time, for the full length of the existing license.</p> <p>EFN requests that NB Power report whether there have been any records of effluent that approach or exceed the DRL.</p> <p>EFN requests that NB Power provide the actual value of the calculated DRLs for the PLNGS (as per CSA N288.1-08)</p>
<p>20</p>	<p>NB Power completes a Radiation Environment Monitoring Program (REMP) to assess the impact that the station and waste management facility is having on the environment and public. NB Power also completes/updates an ERA on a semi-regular basis. To date, NB Power has not presented the information from these directly to EFN, nor involved any EFN community members.</p>	<p>EFN requests that our community be directly involved in all aspects of the REMP (i.e planning, coordination, data collection, analysis and reporting).</p> <p>EFN requests that our community be directly involved in all aspects of the ERA (i.e planning, coordination, data collection, analysis and reporting).</p> <p>EFN requests that NB Power coordinate with Kopit Lodge for regular communications (e.g. every year or every second year) of the results of the REMP and ERA with EFN.</p>
<p>21</p>	<p>The CNSC operates an Independent Environmental Monitoring Program (IEMP) to assess the impact that the station and waste management facility is having on the environment and public. To date, CNSC has not presented information on findings of the IEMP directly to EFN, nor involved any EFN community members.</p>	<p>As noted in comment #7 above, the community would like to participate in all monitoring activities and would like to have representation on an the CNSC IEMP. EFN and Kopit Lodge request information on results of the IEMP and involvement in carrying it out.</p>

3.2.1 Fisheries Act Authorization

NB Power has started the process to obtain a *Fisheries Act* Authorization (the Authorization) from Fisheries and Oceans Canada (DFO). This Authorization would include a planned off-setting for the PLNGS and three other NB Power facilities. The components of the PLNGS which trigger the need for offsetting are associated with the *serious harm* caused by two aspects of station operation: impingement and entrainment associated with water intake for cooling; and thermal shocks due to the discharge of heated cooling water. The offsetting would target a dam removal to improve habitat conditions and connectivity for migratory fish. As the Authorization process is not regulated by the CNSC, the decision on the offsetting plan is separate from the relicensing process.

#	Comment	Request/Recommendation
22	<p>The health of fish (of all species, including shellfish and other invertebrates) is of high significance to EFN and KL. Ensuring an adequate offsetting plan by NB Power is therefore a major priority. NB Power has stated that engagement and consultation with Indigenous communities on this Authorization has commenced, but EFN and Kopit Lodge are not aware of any consultation with our community to-date. It is possible that some consultation has occurred but without any details on the specific barrier removal that is being considered it is not known if NB Power has engaged with us on.</p> <p>While the Authorization process is separate from the CNSC relicensing, EFN and Kopit Lodge wish to state here for the record that it is critical that we be involved in planning, execution and monitoring of the offsetting plan associated with the Authorization.</p>	<p>NB Power must engage directly with EFN and Kopit Lodge for all aspects of the Authorization. Communication and coordination for this can be done through Kopit Lodge and should commence immediately.</p> <p>Furthermore, EFN and Kopit Lodge request additional details on the monitoring associated with cooling water intake and discharge. For example:</p> <ul style="list-style-type: none"> • What mitigation measures are in place to minimize impacts to fish from cooling water intake and discharge? • What data has NB Power collected on number/species of fish and marine organisms that have been killed by water intake on site? • Have there been incidences of fish death associated with thermal shocks due to cooling water discharge? <p>This information can be provided to EFN and Kopit Lodge in a manner mutually agreeable with NB Power, such as email, sharing of reports, meetings with staff, and community meetings.</p>
23	<p>In 2018, NB Power has completed research on the thermal plume associated with discharges of cooling</p>	<p>EFN and Kopit Lodge request that NB Power share the full report of this 2018 study.</p>

<p>water into the Bay of Fundy. This study was done to investigate the size, location, and dimensions of the thermal plume, in addition to the overall changes in water temperature and quality. The information on this study presented is superficial and not of sufficient detail to understand the potential impacts on fish, fish habitat, and EFN’s fisheries in the region.</p>	<p>EFN and Kopit Lodge request that NB Power provide information on when the next thermal plume study will be completed.</p> <p>EFN and Kopit Lodge request direct involvement in the planning, execution, analysis and reporting for the next thermal plume study.</p>
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3.3 Waste Management

NB Power operates a Waste Management program applicable to all phases of the waste management lifecycle. The waste management SCA operated by NB Power outlines their commitment to:

- waste characterization
- waste minimization over the current license period
- waste management practices; and
- decommissioning plans

Waste is characterized as either “radioactive waste” or “inactive waste”. Radioactive waste is then further characterized as low, intermediate, or high-level waste based on the amount of radioactive energy it emits.

Inactive waste generated at the facility is sent to provincially regulated and licensed land fill. Nuclear waste is stored onsite in existing waste management facilities, the SRWMF, until a permanent disposal facility is available. The strategy proposes that the contaminants will be managed in-situ when they have decayed or attenuated to a level which meets regulatory guidelines. The total volume of low and intermediate level radioactive waste is shown in Table 2 below. The low and intermediate level waste is stored in Phase I and Phase III of the SRWMF. The high level waste (spent fuel bundles) are stored separately, with two hundred and twenty five currently on-site. This high-level radioactive waste is stored in reinforced concrete structures above ground, in Phase II of the SRWMF. It is anticipated that these structures will be stable for at least 50 years.

Table 2. Volume of low and intermediate level radioactive solid waste generated by the PLNGS (NB Power, 2021)

	Low (m ³)	Intermediate (m ³)
2016 Q4	13.93	0.29
2017 Q1	19.21	0.21
2017 Q2	32.92	0.84
2017 Q3	15.42	0.53
2017 Q4	24.51	0.52
2018 Q1	14.85	0.004
2018 Q2	50.43	1.04
2018 Q3	13.76	0.28
2018 Q4	13.86	0.53
2019 Q1	11.47	0.26
2019 Q2	33.90	0.26
2019 Q3	12.09	0.29
2019 Q4	9.92	0.21
2020 Q1	10.25	0.50
2020 Q2	11.12	0.17
2020 Q3	32.63	0.48
2020 Q4 ¹	109.31	0.28
2021 Q1	18.06	0.00

NB Power maintains a Preliminary Decommissioning Plan (PDP) that is regularly updated (every 5 years) throughout the life of the PLNGS. This was completed most recently on June 24, 2020. According to the PDP, the PLNGS is anticipated to end operations in 2040. NB Power has stated that they plan to decommission the entire site at that time. NB Power maintains a financial guarantee with the CNSC to cover the expected costs of decommissioning. The total value of this financial guarantee is \$755 million, which is slightly higher than the anticipated requirement of \$714.5 million.

The CNSC concludes that overall the Waste Management Program by NB Power is satisfactory and is compliant with all regulatory requirements. Furthermore, the financial guarantee is considered acceptable and staff have recommended that it be approved by the CNSC.

#	Comment	Request/Recommendation
24	The connection to and reliance upon the land is of the utmost importance to EFN members. There is a possibility that waste stored at the NB Power site could negatively impact the quality of surface and groundwater and/or contaminate the	EFN must be involved and consulted in any decisions related to nuclear waste management. EFN should also be directly involved in the monitoring and oversight of nuclear waste management through employment, training and other capacity building initiatives. This will allow

	<p>soil. While we recognize that waste is currently being stored at the PLNGS site, NB Power is responsible to demonstrate that the activity has not and will not have any impact on groundwater, surface water and soils. Where impacts are found, NB Power is responsible for remediation.</p>	<p>EFN to make informed decisions on nuclear waste management issues in New Brunswick.</p>
<p>25</p>	<p>There is currently no location in Canada that is approved for the long-term storage of high-level radioactive waste. This means that NB Power has relatively few options for the long-term storage of waste in the SRWMF. While a discussion specific to long-term storage of high-level waste was not included in the CMDs, from the perspective of EFN and Kopit lodge there appears to be relatively few scenarios for waste management available to NB Power, including:</p> <ul style="list-style-type: none"> • Hoping that a long-term storage facility is approved, such as the proposed Deep Geological Repository sites in Ontario being advanced by the Nuclear Waste Management Organization (NWMO). If one of these sites is approved and developed, it would require the packaging and transport of all the waste on-site. It is unclear at this time whether this scenario is likely to occur. • NB Power could propose and develop their own long-term storage site in New Brunswick. This site could be for storage of waste associated exclusively with the PLNGS or for all waste in Canada. This would be a 	<p>While the scenarios described by EFN and Kopit Lodge for long-term management of high-level waste are not necessarily exhaustive, it is expected that they capture the most likely scenarios. Each of these presents unique challenges and risks. As a community of the Mi'kmaq Nation which holds Aboriginal rights and title to these lands, and as signatories to the Peace and Friendship Treaties which affirms our right to a continued livelihood based on the resources on in our lands and waters, EFN has a keen interest in ensuring that high-level waste generated at the PLNGS is managed safely and responsibly. For this reason, it is important that NB Power and the CNSC include EFN and Kopit Lodge up to date with regards to how this waste will be managed. Meaningful consultation with EFN and Kopit Lodge must occur prior to any decision regarding long-term management of high-level waste. This consultation can occur as part of the Long-Term Relationship Agreement, as identified in comments #1, 3, 5, and 16, and as discussed further in section 4.0.</p>

	<p>massively challenging and resource intensive process that does not seem likely.</p> <ul style="list-style-type: none"> • High level waste would be maintained on-site at the PLNGS, without any adequate plans for the long-term storage, monitoring, and management. Should no approved site be developed by the NWMO in the near future (i.e. ~50 years), this alternative seems the most likely. 	
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3.4 Emergency Management and Fire Protection

NB Power has a robust system for emergency management, preparedness, and fire protection. Emergency response at PLNGS is governed by the is governed by the *Point Lepreau Emergency Response Plan*. NB Power conducts drills and exercises *Nuclear Emergency Preparedness and Response*. NB Power also implements and maintains a fire protection program in accordance with *Fire Protection for Nuclear Power Plants* (CNSC, 2021). The plant has its own Emergency Response Team (ERT) which includes firefighting, medical, security and hazmat response capabilities. PLNGS has a mutual aid agreement with the Musquash Volunteer Fire Department and the Saint John Fire Department valid through to 2030 (NB Power, 2021). Local volunteer firefighters train at the site weekly and have developed a thorough understanding of the site layout, fire hazards and firefighting equipment locations to enhance emergency response capabilities.

NB Power has implemented a variety of initiatives related to Emergency Management and Fire Protection over the current licensing period, including the following:

- Commissioning of a new Off-Site Emergency Operations Centre (OEOC)
- Participation in two major emergency simulations which took place in March 2018 and October 2021
- Implementation of Direct Plant Data Transfer capabilities between the Main Control Room and CNSC Emergency Operations Facility
- Introduction of an additional Emergency Response Team (ERT) (CNSC, 2021)

The Emergency Preparedness Program focuses on the following hazards:

- Upset alerts (e.g., plant malfunctions, equipment failure)
- Radiation events
- Fire events

- Medical events
- Hazmat events
- Severe accidents (e.g., beyond design basis events)
- Natural disasters (e.g., storms, floods, hurricanes, earthquakes, tsunamis)
- Pandemic events
- Security events
- Radioactive materials transport events (NB Power, 2021)

On February 5, 2021, a fire occurred in the Primary Heat Transfer (PHT) pump motor. The PLNGS Emergency Response Team was notified and worked alongside Musquash Volunteer Fire Department to extinguish the fire.

CNSC staff are satisfied with NB Power’s capabilities to respond to a fire at Point Lepreau NGS.

#	Comment	Request/Recommendation
26	Figure 30 on Page 107 of NB Power’s Written Submission shows the Emergency Response Organization Chart. First Nation communities including EFN are not specifically included on the organization chart. It is unclear who will notify First Nations in the event of an emergency at PLNGS; or when in this process this would occur. First Nations are distinct entities from federal, provincial, and municipal governments. It is crucial that NB Power provide advance notification to First Nations in the event of an emergency at PLNGS.	Since First Nations are distinct from federal, provincial, and municipal government, NB Power should include Indigenous communities including EFN in their Emergency Response Organization Chart. NB Power should notify First Nations governments at the same time as the Provincial Emergency Operations Center.
27	Regarding the PHT pump motor fire on February 5, 2021, CNSC staff states that “investigations were completed and a number of opportunities for improvement were identified and implemented by the ERT in regard to the fire response” (CNSC Staff, 2021). There are no specific details of the investigation provided by NB Power or CNSC staff.	Please provide further details of the findings of the investigation including the cause of the PHT pump motor fire and the opportunities for improvement that were identified and implemented.

28	PLNGS completed two Synergy Challenge Emergency Response Exercises at PLNGS in 2018 and 2021. The events simulated a full-scale nuclear emergency at the site and included participants from 35 organizations. EFN was not invited to participate in the event.	EFN should be invited to participate in future Synergy Challenge events or other Emergency Preparedness drills. This would help EFN build a more fulsome understanding of how PLNGS emergency response protocols.
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3.5 Radiation Protection

The radiation protection SCA covers the implementation of a radiation protection (RP) program in accordance with the *Radiation Protection Regulations*. The program must ensure that contamination levels and radiation doses received by individuals are monitored and maintained as low as reasonably achievable (ALARA). The following specific areas comprise this SCA at PLNGS:

1. Application of ALARA
2. Worker Dose Control
3. Radiological Hazard Control
4. Radiation Protection Program Performance
5. Estimated Dose to Public

The *Radiation Protection Regulations* require licensees to establish a radiation protection program to keep exposures ALARA, taking social and economic factors into account, through the implementation of a number of control programs, including the following:

- Dose monitoring program for staff, contractors, etc.
- Management control over work practices
- Personnel qualification and training
- Control of occupational and public exposures to radiation
- Planning for unusual situations

During the current licensing period NB Power has implemented an RP program at PLNGS that protected the health and safety of worker/contractors and ensured exposures were below regulatory dose limits and maintained ALARA.

According to the CNSC, the RP program at the PLNGS has been effectively implemented to ensure doses received by workers are maintained below regulatory limits. To confirm this, NB Power operates dosimetry monitoring of radiation received by employees and contractors from all activities at the PLNGS. The available types of dosimetry, as well as the criteria and procedures for use, are implemented through the RP program. The data collected as part of the RP program shows that all monitored workers were below the annual dose limits of 50 mSv per year (Figure 3).

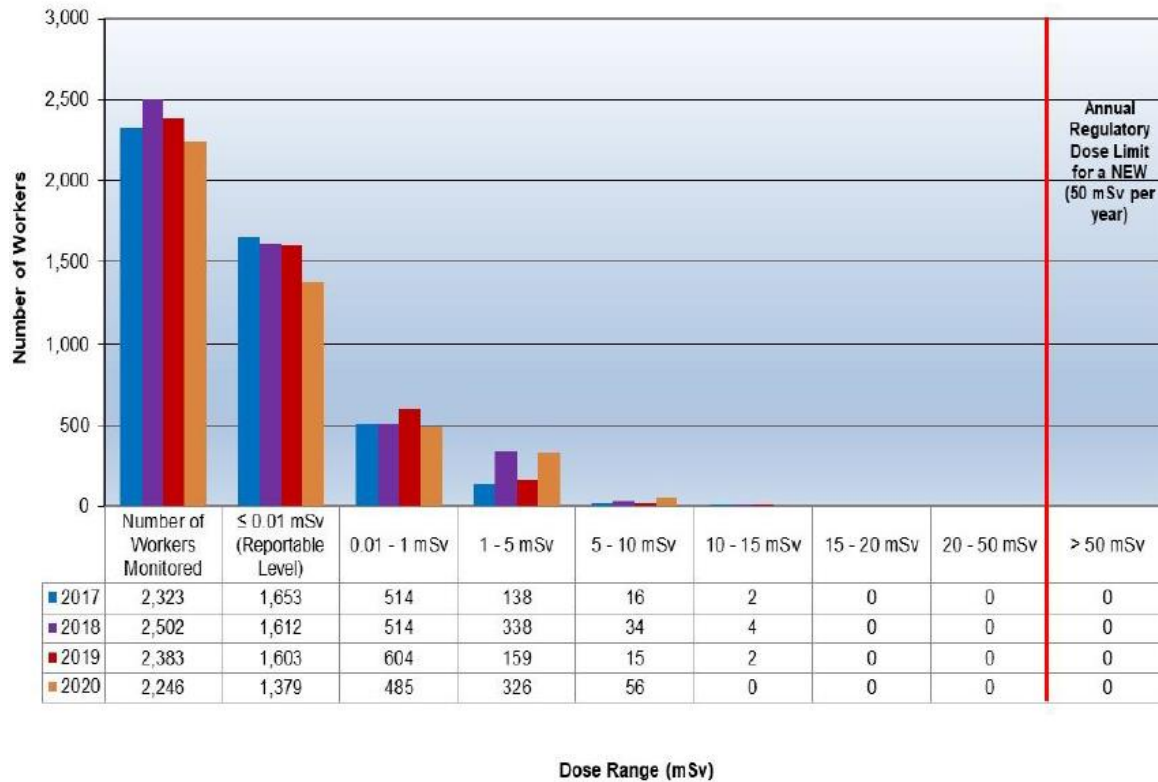


Figure 3. Distribution of annual effective doses for workers at PLNGS from 2017-2020 (Source: CNSC, 2021)

NB Power will continue to update radiation protection documentation in response to changes in future work planned at PLNGS. NB Power will continue to re-evaluate the radiological hazards in these areas to ensure the workers’ protection is optimized.

According to the CNSC, the PLNGS facility has been in full compliance for its operating performance and received a compliance rating of “satisfactory” throughout the previous licence period for all components of the Radiation Protection program.

#	Comment	Request/Recommendation
29	The application outlines safe exposure doses for PLNGS employees and members of the public, but does not appropriately account for the heightened exposure Mi’kmaq people may experience as a result of harvesting, wild food consumption and being active on the land around the facility.	EFN and Kopit Lodge wish to be engaged in regulatory oversight and response regarding the potential radiation exposure for Mi’kmaq people who may work at or harvest around PLNGS and may therefore have heightened exposure.

3.6 Small Modular Reactors

Small Modular Reactors (SMRs) are an emerging technology in the nuclear sector. SMRs are significantly smaller than conventional reactors and generally are used to generate between 1- 300 Mwe. SMRs could be potentially used in remote communities, industrial sites, or ships. SMRs have the potential to offer advantages over traditional technologies, including the ability to procure and construct the facility in a modular way which reduces the up-front capital costs. SMR technology is still under development in Canada at several locations including PLNGS.

The New Brunswick Energy Solutions Corporation, a provincial Crown corporation, was developed to advance SMR research in New Brunswick. Moltex Energy and ARC Clean Energy Canada are working to test and develop SMR technology at PLNGS. In December 2019, New Brunswick, Ontario and Saskatchewan signed a Memorandum of Understanding to work cooperatively for the development and deployment of SMR in Canada. In April 2021, Alberta also signed the MOU (NB Power, 2021).

SMRs are not included in the scope of NB Power’s the license application before the Commission. CNSC Staff states “the current relicensing application does not include any new build activities for SMRs. If NB Power decides to pursue the construction and operation of an SMR, they will be required to submit a new application to the Commission for decision” (CNSC Staff, 2021).

#	Comment	Request/Recommendation
30	EFN must be adequately consulted and accommodated in the matter of the SMR development on the PLNGS site to ensure adequate mitigations and accommodations are put in place to protect EFN rights and interests.	NB Power and its partners Moltex Energy and ARC Clean Energy should enhance engagement efforts with EFN regarding SMR development in New Brunswick.

4.0 Long-Term Relationship Agreement

Part of the Reconciliation process in Canada is acknowledging past wrongdoings by governments or corporations to Indigenous peoples or communities. To advance reconciliation, many corporate entities (including Crown corporations) have begun to develop formalized relationships and partnerships with local Indigenous communities. One such arrangement is called a Long-Term Relationship Agreement (LTRA), which lays out the framework for a relationship between the corporate entity and Indigenous communities to specify how Indigenous people will be involved and share in the benefits of a project/facility equitably.

In an effort to establish a formal arrangement for consultation and accommodation related to PLNGS, EFN proposes the establishment of a LTRA between NB Power and the EFN. The LTRA would create a process for negotiating accommodation measures for impacts (past, present and future) as a result of

the PLNGS site and other NB Power Infrastructure (e.g., hydro dams, transmission lines, etc.). The LTRA would be a binding legal document that both parties would jointly negotiate and develop an implementation plan.

The LTRA would outline the impacts of NB Power developments (including PLNGS) as well as the commitment and responsibilities of both parties. The LTRA would set out terms for how NB Power would provide opportunities and share benefits with EFN. The following potential accommodation measures could be laid out in the LTRA:

- Employment
- Training and apprenticeship programs
- Business opportunities related to PLNGS (supply chain, spin-off business, etc.)
- Environmental and cultural heritage monitoring or stewardship programs
- Rehabilitation and remediation programs
- Regular meetings and communication protocol
- Lease arrangements for the use of Mi’gmaq land
- Revenue-sharing arrangements
- Involvement in the decommissioning and long-term monitoring of the PLNGS (including specific line items in the financial guarantee associated with the Preliminary Decommissioning Plan)

The LTRA would be used as a tool to formally acknowledge the use of Mi’gmaq lands for the PLNGS site by NB Power. Accommodation measures for impacts from the permanent loss of access because of PLNGS would assist EFN in playing a more active role in the continued operation/maintenance and future projects occurring at PLNGS.

#	Comment	Request/Recommendation
41	<p>There is no formal accommodation agreement in place between NB Power and EFN regarding the past, present and future operation of NB Power assets including PLNGS, and the associated impacts and risks. NB power infrastructure is all located on unceded lands and was constructed without meaningful consultation with First Nations.</p> <p>NB Power assets including PLNGS have generated significant economic benefits for the Government of New Brunswick. While EFN supports benefits for the people of New Brunswick and commends the efforts of NB Power to provide reliable electricity</p>	<p>NB Power should commence negotiations with EFN to establish a Long-Term Relationship Agreement with the EFN to determine a formal approach to consultation and accommodation for NB Power assets (including PLNGS). NB Power has a significant footprint and environmental impact on Mi’gmaq Territory, a formal accommodation arrangement between NB Power and EFN is required. There are numerous examples across Canada</p>

	<p>to the province. EFN believes that as a distinct rights-holding government, NB Power has an obligation to accommodate EFN for the use and impacts to Mi'gmaq lands.</p>	<p>of public utilities who have come to formal accommodation agreements with First Nations (e.g., Ontario Power Generation, Manitoba Hydro, BC Hydro, etc.)</p>
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5.0 Conclusion

We appreciate the opportunity to provide our perspectives to CNSC and NB Power regarding the PLNGS. We believe that moving forward, the CNSC and NB Power should integrate the comments, recommendations, and accommodations presented in this report into management and oversight regimes for PLNGS. Elsipogtog First Nation and Kopit Lodge are committed to engaging with NB Power and CNSC to develop a long-term approach to meaningful consultation and engagement. We provide this set of comments and recommendations to enable CNSC and NB Power to work with us to ensure Mi'gmaq rights and interests are protected and accommodated. We look forward to responses back to each of our comments, and view this as an opportunity to create a productive relationship between the Elsipogtog First Nation, CNSC, and NB Power that is rooted in respect and mutual benefit.

6.0 References

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