



February 6, 2024

Mr. Mike Atkinson
Regional Director
Impact Assessment Agency of Canada
200-1801 Hollis St.
Halifax, NS B3J 2N4

Dear Mr. Atkinson:

Re: Boat Harbour Remediation Project Response to Information Requirement 82

In this submission from Build Nova Scotia to the Impact Assessment Agency of Canada (IAAC) of a response to Information Requirement 82, we would like to take the opportunity to acknowledge that we have utilized the environmental assessment process to effectively evaluate our project plans and to assess and demonstrate that they have been developed in a careful and precautionary manner to avoid or mitigate possible environmental impacts.

We have provided evidence in our Environmental Impact Statement (EIS) submitted for the Boat Harbour Remediation Project, in whole, that its planning was careful and cautious, as required by IAAC guidance. In particular, the response provided to Information Requirement 82 (IR82) emphasizes the careful consideration given to planning for the safe and secure long-term storage of waste consolidated from the cleanup of the broader Boat Harbour site environment and to ensure respect of the precautionary approach required to be undertaken throughout our planning.

The use of the existing approved containment cell, entirely located on an approximate seven (7) hectare parcel of provincially owned lands, has not and will not physically impact nor restrict access to adjacent lands around Boat Harbour, including Indian Reserve lands. We assert that the proposed site for containment of waste consolidated from the broader Boat Harbour site environment and stored safely and securely in the existing containment cell, a brownfield site previously approved solely for the storage of waste from Boat Harbour, is the option preferable to the establishment of another new containment cell at another location. In the case of IR82, the option of moving the waste to Pictou Landing First Nation community owned lands, at a greenfield site in Mount William, simply is not suitable.

This project to remove waste from the Boat Harbour environment and consolidate it in a safe and secure manner is a prerequisite to any other project which may possibly emerge in the future. An acceptable, proven, and feasible alternative to treat the waste may be identified in the future but is currently not available.

We have provided ample evidence in our EIS, and further in this IR82 response, that our consultation with First Nations has been adequate to meet our duty to consult as required by law.

The ultimate goal of the cleanup of Boat Harbour is to return it to its natural historical state as a tidal estuary. This is the vision conveyed by Pictou Landing First Nation at the commencement of our project planning in 2015, which then became our remediation objective.

To achieve that objective, we are seeking approval of a project plan that is safe and scientifically sound, based on many years of extensive evaluation and due diligence. We are looking forward to regulatory approval, so that we can start the cleanup as quickly as possible.

Yours truly,

<Original signed by>

Ken Swain
Executive Director
Boat Harbour Remediation Project

KS:ki

Attachment

*c: Terence Hubbard, President, IAAC
Eric Landry, Vice Preseident Operations, IAAC
Ian Ketcheson, Vice President Indigenoustr Relations, IAAC*

Boat Harbour Remediation Project

Information Requirement 82

PLFN Feedback to the Information Requirement and Address of Concerns Raised in the Feedback

February 2024

Executive Summary

The Impact Assessment Agency of Canada (IAAC) issued Information Requirement 82 (IR82) to Build Nova Scotia, formerly Nova Scotia Lands as the Boat Harbour Remediation Project Proponent (Proponent) on October 8, 2021, seeking additional information on the Environmental Impact Statement (EIS) Sections 2.2.1.1 on Identification of Alternative Means and 2.2.1.2.1 on Waste Management Remedial Options Decision Document. IAAC advised that this information is required to ensure that the assessment of alternative means was sufficient to allow the evaluation and the selection of the preferred alternative for waste management and to increase IAAC's understanding of the potential effects of the Boat Harbour Remediation Project (Project), including potential impacts to Aboriginal and treaty rights. The Specific Question/Information Requirement asked the Proponent to provide an analysis of the technical and economic feasibility of the alternative containment cell location proposed by Pictou Landing First Nation (PLFN). The analysis should consider factors such as environmental impacts, cost, regulatory requirements, timing, risk, public concerns, and impacts to PLFN. Sufficient information should be provided to support any assumptions or conclusions made in the analysis. The Proponent is also to provide PLFN the opportunity to comment on the analysis and clearly demonstrate how comments were addressed.

The Proponent conducted the analysis required and submitted the analysis and related documentation to PLFN to obtain their feedback. The report titled "*Boat Harbour Remediation Project Response to IAAC Information Requirement Number 82 Technical and Economic Feasibility Assessment Alternative Containment Cell Location Site – dated July 2022*" was provided to PLFN Chief, Council and others on August 17, 2022. Feedback was received from PLFN on August 25, 2023.

Addressing PLFN Comments on the IR82 Feasibility Analysis

The PLFN comments are contained in the document *PLFN Response to NS Technical and Economic Feasibility Assessment of Alternative Containment Cell Location Site* dated August 24, 2023, attached as Annex 1.

The basis upon which the PLFN comments have been addressed is laid out in detail in Annex 2, in which three matters are addressed:

1. Engagement, Consultation, Sharing of Plans primarily in 2015 to 2018; PLFN general support for the Project through 2019 and 2020; with adamant opposition emerging in 2021.
2. Legal Matters raised in PLFN feedback.
3. Technical Issues from PLFN feedback.

Summary of Address of PLFN Feedback

Summary of Engagement, Consultation, Sharing of Plans and PLFN General Support for the Project

Nova Scotia's (the Province) engagement and consultation with PLFN was carried out in conjunction with the development of Project plans, including the assessment of alternatives for various elements of the Project. It is useful to review a chronology of key events, as laid out in Annex 2.

The purpose of the Annex 2 chronology is to demonstrate the extensive engagement and consultation with PLFN over the period from 2015 to 2018, including efforts to inform the PLFN community on the containment cell alternative. During 2019 and 2020, PLFN's actions and public statements implicitly supported the Project plans and implementation notwithstanding their opposition to the containment cell. This information is provided in response to various PLFN comments in their feedback that the Province did not meet the duty to consult and that consultation was not adequate.

In addition, the Province believed that it was leading Crown consultation from April 2018 to the fall of 2019 and that PLFN was fully informed of the Project plans and supported proceeding with Project implementation.

Over the period mid-2015 to December 2018, significant effort was made to inform PLFN on the development of design, plans and alternatives evaluation, with an increased emphasis on the containment cell alternative, as there was an understanding that PLFN was not in agreement with that Project element's remedial options decision. As a result, emphasis was put on the containment cell element, as well as on the identification of mitigative measures and accommodations associated with the containment cell effects on the exercise and enjoyment of aboriginal and treaty rights on that specific parcel of land within which the containment cell is situated. Significant effort was also put into providing information and educational materials and community sessions on the containment cell element.

Over the period 2019 and 2020, there were significant developments which led to an understanding by Nova Scotia that PLFN implicitly supported the cleanup plans. In February 2019, PLFN's third party consultants produced reports for PLFN which provided a land use vision and plan for the remediated site (by Membertou Geomatic Solutions), as well as a report on economic opportunities which PLFN could derive from participation in the Project (by Group ATN Consulting Inc). On February 22, 2019, PLFN and Nova Scotia also held a comprehensive Boat Harbour Cleanup Committee (BHCC) meeting with a focus on moving forward with the cleanup and a strategy to assure PLFN's participation in the Project. These reports and minutes are noted in the Annex 2 chronology, and copies are provided in Annex 3.

During 2019 and 2020, while the focus was on moving forward and developing approaches to enable PLFN's effective participation, PLFN leadership made several comments in the public media which indicated PLFN's support for the Project.

While Nova Scotia believed that PLFN supported the Project throughout 2019 and 2020, it was in March 2021 that PLFN started to express an adamant opposition to the containment cell in discussions with Nova Scotia. There were concurrent discussions with IAAC and PLFN, in the absence of the Province, on the containment cell element of the Project, which were independent of the PLFN/Nova Scotia discussions. This led to the issuance of IR 82 by IAAC to the Proponent on October 8, 2021.

It is important understand that the remedial options decision making process which led to the selection of the existing containment cell as the preferred option for long term waste management is based upon the existing technology to remediate the contaminated materials, especially the availability of a proven treatment technology to deal with dioxins and furans, as well as the proximity of available and technically and economically feasible locations to store the waste consolidated from the proposed Project's implementation. It is possible that an emerging and proven technically and economically feasible solution may emerge in the future, which may not be available now. That alternative could be assessed, using the appropriate filters.

Summary of Legal Aspects of PLFN Feedback

There are important elements of the PLFN feedback requiring legal address, which address is laid out in Annex 2.

The Project currently before the IAAC is for the proposed environmental cleanup of Boat Harbour and several related components including: the standpipe which extends from the Kraft Pulp Mill (Mill) property eastward, underneath the East River, through existing and historic Boat Harbour effluent treatment facility lands, Boat Harbour and its banks, extending to the Northumberland Strait. Moving or relocating the existing containment cell is not, and was never, a part of the proposed Project. The Project proposes the vertical, but not horizontal, expansion of the existing containment cell to deposit the contaminated materials associated with the cleanup of Boat Harbour and the Boat Harbour Effluent Treatment Facility.

This Project has been grandfathered under the *Canadian Environmental Assessment Act, 2012*. The Impact Assessment Agency (IAAC) has three options as the regulatory decision-maker:

1. Approve the Project;
2. Approve the Project with conditions; or
3. Reject the Project.

In carrying out its regulatory responsibilities, IAAC must ensure its regulatory processes are procedurally fair and any decisions are rendered in accordance with their governing laws and regulations.

Any potential unjustifiable infringement of PLFN's Section 35 rights, including in relation to IR37 and IR24G as they relate to the existence of the current containment cell, are matters which are beyond the scope of these consultations and environmental assessment. Consultation is a forward-looking constitutional duty, and the subject of this consultation process via this environmental assessment is to look at potential adverse effects on the PLFN's asserted or established Aboriginal or Treaty Rights as stemming from the Project.

The Project was designed through public engagement and consultation with the PLFN since 2015. The Project will ultimately lessen the geographic extent of the current underlying adverse effects on PLFN's Section 35 rights by limiting them to the footprint of the existing containment cell, which will be vertically, but not horizontally, expanded as part of the broader remediation of Boat Harbour and the lands associated with the Boat Harbour Effluent Treatment Facility (BHETF). The Project, when completed, will enable the PLFN to exercise their asserted or established Aboriginal and/or Treaty rights in a broader geographic portion of PLFN's traditional territory (A'se'k) than they have been able to do since the Mill was constructed in the 1960s. Accordingly, the Project advances reconciliation by balancing the rights and interests of the PLFN with the rights and interests of all Nova Scotians, in accordance with the Honour of the Crown.

The duty to consult and potentially accommodate, when triggered, does not necessitate a particular outcome, and the Crown is not to be held to a level of perfection in fulfilling its duty. The Proponent has made every reasonable effort to inform and consult with PLFN on the Project and accommodate potential adverse effects on PLFN's asserted or established Aboriginal or Treaty rights. The consultations and information sessions date back to 2015. Those discussions formed the design of the current Project. In addition to Build Nova Scotia's (BuildNS) consultation and information sessions, BuildNS, as the Proponent of this environmental assessment process, has relied upon the environmental assessment process administered by IAAC, as the regulatory authority for fulfilling the duty to consult. The Proponent maintains it has acted in accordance with the duty to consult and the Honour of the Crown throughout this Project and that the Project advances reconciliation through balancing the rights and interests of PLFN with the rights and interests of all Nova Scotians.

Summary of Technical Aspects of PLFN Feedback

The Province has prepared a fully developed project in accordance with the Environmental Assessment (EA) Guidelines issued by IAAC in May 2019. This included technical and economic feasibility analysis of alternatives, as outlined in the EIS, which was submitted for federal review in November 2020. The *Remedial Options Decision Document* (RODD), which was submitted with the EIS, ruled out the development of a new facility for Boat Harbour waste. In keeping with standard good industry practice, development of a new facility when an approved one is available to take the waste did not make sense,

both environmentally and economically. As noted in the foregoing, the remedial options decision-making process considered existing proven technologies and other offsite location options available at the time of the assessment in 2018. In the event that an emerging and proven technically and/or an economically feasible alternative is to arise or be identified in the future, the alternative could be assessed, using the appropriate filters. Additionally, the Project planning considered the IAAC EIS Guiding Principle “2.4 Application of the precautionary approach), which required the Proponent to demonstrate that all aspects of the Project have been examined and planned in a careful and precautionary manner in order to avoid significant adverse environmental effects”.

In October 2021, IAAC issued IR82 which required a feasibility assessment of a specific property located at Mount William in Pictou County, proposed and owned by PLFN, for the purpose of converting a greenfield site to a facility for consolidating and disposing of Boat Harbour waste. While the Province is of the opinion that the request is outside of the federal EA process under CEAA 2012, it has complied with production of a response to the technical aspects of IR82. As requested, the Province proposed a fully developed project for evaluation which included alternatives. IR82 clearly suggests an element outside of the current Project which would be deemed a new project.

As noted above, the proposed expansion of the containment cell is consistent with the EIS Guiding Principles: "2.4 Application of the Precautionary Approach. In documenting the analyses included in the EIS, the Proponent will demonstrate that all aspects of the Project have been examined and planned in a careful and precautionary manner in order to avoid significant adverse environmental effects."

Any alternative involving removal and relocation of the additional sludges to another location would, among other things, present significant risk through transporting the sludges over public highways and would generate significant Green House Gases as adverse environmental effects. As well, it was referenced the fact that long term storage of large volumes of contaminants in containment close to the remediation site is the preferred risk-based approach used on major remediation projects, in both the Nova Scotian and Canadian context. This approach minimizes project risks relative to transport of waste, as well as minimizing environmental impacts associated with Green House Gases resulting from transport of large volumes of materials. In this case, the volume of materials would be in the range of a minimum of 63,000 tandem truckloads on public highways. The assessment of alternatives approach also considers economic feasibility, especially in dealing with significant sums of public funds. The assessment of alternatives is addressed in detail in the Project's Environmental Impact Statement, submitted in November 2020.

In summary, the Mount William site is not feasible for several reasons:

- NSECC, on behalf of the Proponent, as the provincial regulatory body for siting waste facilities, has evaluated the site and determined that the alternative site proposed by PLFN is not suitable due to a shallow water table, significant wetlands, proximity to private wells and proximity to a potable water supply for a local business.

- Due to the significant volume of truck traffic required to move remediated materials, there is an inherent level of risk and increased environmental impacts associated with the alternative site proposed by the PLFN option that require significant mitigative measures or regulatory hurdles that may be insurmountable.
- The current proposed Project is expected to result in a net decrease in emissions of 315,020 tonnes of CO₂ equivalent over a 25-year period. The PLFN proposed site scenario would generate an estimated 183,164 tonnes of CO₂ equivalent, approximately equal to the annual energy consumption of 5,042 residential homes.
- Time and regulatory uncertainty poses risk.
- The cost analysis supports the use of the existing containment cell, as the incremental costs associated with the proposed PLFN site specific alternative are somewhere in the range of \$86 million to \$162 million. This estimate does not take into consideration the recent steep and continuing rise in inflation being experienced across the country. In addition, it does not consider any other associated costs relative to PLFN ownership of the Mount William lands, and therefore should be interpreted as a best-case cost scenario.

Conclusion

The IR82 analysis reinforces the conclusions reached through the RODD process. The Project as proposed includes use of the existing, approved containment cell facility as the most environmentally, technically and economically feasible alternative for waste management for the Project, at this time.

As noted in IR82, provided by IACC to the Proponent in October 2021: *“PLFN has informed the IACC and NSLands that they do not support the use of the existing containment cell as the permanent storage facility for the remediated materials.”* Prior to October 2021, the Proponent had recognized the lack of unanimous support from PLFN for this Project element in development of the proposed Project Description submitted for environmental assessment. The Proponent had considered this in ongoing engagement and consultation with PLFN since 2016, as well as in the proposal of related compensation, accommodation and mitigative measures. These matters are detailed in the relevant parts of Annex 2, as well as in more extensive detail in Sections 5 and 6 of the Environmental Impact Statement submitted to IACC.

IR82 stated that the Proponent is to *“provide PLFN the opportunity to comment on the analysis and clearly demonstrate how comments were addressed.”*

This separate report is based upon the PLFN comments or feedback arising from their review of the document noted above and provides the Province’s response to the comments and concerns raised in the feedback.

Annex 1 to this report details the feedback received from PLFN on August 25, 2023.

Annex 2 provides the Province's address of the PLFN feedback.

Annex 3 provides several documents referenced in Annex 2.

General Conclusion on PLFN Feedback

The response to comments and concerns expressed by PLFN in their feedback to the IR82 assessment are addressed as noted in the foregoing summary and in detail in Annex 2. The PLFN feedback is included as Annex 1. Associated documents referenced in this report are provided in Annex 3.

The feedback provided does not change the conclusion of the IR82 assessment, the Mount William site is not a technically and environmentally feasible alternative for the long-term storage of Boat Harbour waste.

Moreover, it is critical to understand that if a feasible alternative was to be identified or arise in the future, then this Project proposed for the remediation of Boat Harbour is a requisite step to effectively remove the contamination from Boat Harbour to allow its return to tidal, in accordance with the remedial objective identified by the PLFN community.

Notwithstanding the compensation and mitigative measures already committed, with an approval for the Project to proceed and during the period of the Project's implementation, ***as a further mitigative measure the Province is prepared to undertake ongoing dialogue with PLFN on the containment cell element. This dialogue is in the interest of determining whether an acceptable alternative to the use of the containment cell, as proposed, can be identified in the future. An acceptable alternative, although unknown at present, may emerge because of new technologies or changing conditions in the environment. Such an alternative would be subject to technical feasibility filters of risk, environmental impact and regulatory requirements as well as its economic feasibility.***

Annex 1

PLFN Comments received August 25, 2023, from IR82 Analysis submitted to PLFN on August 17, 2022,

The document "*Boat Harbour Remediation Project Response to IAAC Information Requirement Number 82 Technical and Economic Feasibility Assessment Alternative Containment Cell Location Site - dated July 2022*", was provided to Pictou Landing First Nation Chief, Council and others on August 17, 2022. The document was presented at an in person briefing at PLFN Council chambers by the Deputy Minister L'nu Affairs, Province of Nova Scotia and the Executive Director, Boat Harbour Remediation Project, Build Nova Scotia.

The feedback was received outlining PLFN comments and concerns on August 25, 2023.

The Annex 1 includes the document: *Boat Harbour Remediation Project Re IAAC Information Requirement Number 82 PLFN Response to NS Technical and Economic Feasibility Assessment of Alternative Containment Cell Location Site dated August 24, 2023.*

Boat Harbour Remediation Project

Re IAAC Information Requirement
Number 82

PLFN Response to NS Technical and Economic
Feasibility Assessment of Alternative Containment Cell
Location Site

August 24, 2023
Pictou Landing First Nation

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1 Executive Summary

1.1 Introduction

1. The Province of Nova Scotia (the “Province”), through Nova Scotia Lands Inc., has submitted to the Impact Assessment Agency of Canada (“IAAC”) for environmental approval, a proposed project description and Environmental Impact Statement (“EIS”) for a project to remediate Boat Harbour (the “Project”). The Project calls for the removal of hazardous waste from Boat Harbour and the permanent storage of the hazardous waste in the existing hazardous waste landfill at Boat Harbour (the “Boat Harbour Landfill”). Pictou Landing First Nation (“PLFN”) objects to the use of the existing Boat Harbour Landfill for long term storage of hazardous waste because it sits on lands over which PLFN claims Aboriginal title and will impact PLFN reserve lands and fee simple lands PLFN owns in the area.

2. PLFN suggested that the Province find an alternative site for a new landfill and put forward one possible site on land it owns in fee simple at Mount William, a short distance from Boat Harbour (the “Mount William Site”).

3. By Information Requirement Number 82 (“IR 82”) IAAC requested that the Province conduct a feasibility study on the Mount William Site. The Province has prepared a response to IR 82 entitled *NS Technical and Economic Feasibility Assessment of Alternative Containment Cell Location Site* (the “Alternative Site Assessment”) and has provided it to PLFN for comment.

4. This document is PLFN’s response (this “Response”) to the Alternative Site Assessment and contains PLFN’s reasons for opposing the use of the Boat Harbour Landfill as part of the Project, addresses the Alternative Site Assessment, and identifies other alternative sites for investigation.

1.2 Aboriginal Title

5. PLFN asserts Aboriginal title to the lands surrounding Boat Harbour, including the land upon which the Boat Harbour Landfill is located. The strength of the Aboriginal title claim is very strong given the court’s findings in *R. v. Marshall*, 2001 NSPC 2, 2001 CarswellNS 105, and the historical evidence available. Because of the strength of the claim, the Province has a fiduciary duty to preserve PLFN’s interest in the claimed land pending resolution of the claim. If the Province proceeds with increasing the size of the Boat Harbour Landfill in the face of PLFN’s claim and without PLFN’s consent, the Province will only be required to remove the contaminants from the Boat Harbour Landfill if the claim is resolved in PLFN’s favour. PLFN never consented to the existing Boat Harbour Landfill in the first place and could not have done so in any event because such use is compatible with the nature of Aboriginal title. It makes little sense to add more contaminated waste from Boat Harbour to the Boat Harbour Landfill when there is a high probability that it will need to be removed once Aboriginal title is established. The Province is silent on PLFN’s land claim in its Alternative Site Assessment.

1.3 Existing Landfill Infringes Aboriginal Rights

6. The existing Boat Harbour Landfill is an unjustified infringement on PLFN's s.35 Aboriginal and Treaty rights. The Province acknowledges that the existing landfill limits the use of IR 37 and IR 24G. The existing landfill was commissioned in 1996 without the consent of PLFN or Canada. PLFN was never compensated for the adverse impacts of the Boat Harbour Landfill on IR 37 and IR 24G. The infringement of PLFN's rights to use its reserves lands is not justified under the *Sparrow* test. The Honour of the Crown prevents the Province from relying on the existence of the Boat Harbour Landfill as a reason to justify its continued and expanded use, when the landfill continues to infringe PLFN's s. 35 rights.

1.4 *Lack of Remediation Agreement a Breach of s. 35 Rights*

7. The Province and PLFN entered into an agreement in principle dated June 16, 2014 (the "Agreement in Principle") in which the Province agreed to negotiate an agreement with PLFN governing the remediation of Boat Harbour. The Agreement in Principle is an accommodation agreement flowing from the Province's duty to consult and accommodate PLFN under s. 35 of the *Constitution Act, 1982* ("Section 35"). The rights of PLFN under the Agreement in Principle are protected under Section 35. However, no negotiations toward a remediation agreement have ever taken place. Instead, the Province unilaterally decided that the remediation project would involve the use of the existing Boat Harbour Landfill for the long-term storage of the hazardous waste to be dredged from Boat Harbour. The Province was fully aware that PLFN opposed the use of the existing Boat Harbour Landfill for that purpose and in fact PLFN wanted the existing landfill removed as part of the remediation. While the Province has made considerable effort to persuade PLFN members to go along with its decision, the fact remains that the Province has not even attempted to negotiate a remediation agreement with PLFN. This is inconsistent with both the letter and spirit of the Agreement in Principle and with the Honour of the Crown and is an infringement of the PLFN's Section 35 rights. As a result, the proposed use of the Boat Harbour Landfill cannot be approved until good-faith negotiations have taken place with a view to reaching a remediation agreement.

1.5 *Consultation Inadequate to Date*

8. The Province recognizes that it has a duty under Section 35 to consult with, and if necessary, accommodate, PLFN with respect to the Project and the use of the existing Boat Harbour Landfill. While it commenced consultation in April 2018, the consultation process has not been adequate. The Province did not give PLFN an adequate opportunity to make submissions and present evidence. It had already made up its mind about the use of the existing landfill. The Province continued its pattern of ignoring its Constitutional duty to consult when it decided to relieve Northern Pulp Nova Scotia Corporation ("Northern Pulp") of its obligation to remove 81,375 m³ of contaminated sludge from the Boat Harbour treatment facility to Northern Pulp's own landfill at Abercrombie Point. Instead, the Province decided that it would place the Northern Pulp sludge in the existing Boat Harbour Landfill with other contaminants from Boat Harbour as part of the Project. This means that if the Project is approved, an additional 89,375 m³ of contaminated sludge will be placed in the existing Boat Harbour Landfill, despite PLFN's opposition. A proposal put forward in breach of the duty to consult should not be accepted.

1.6 *Proposed Accommodation/Compensation Inadequate*

9. The Province suggests that it is transferring 173 hectares of land as partial accommodation for the continuing impacts of the Boat Harbour Landfill on PLFN. These 173 hectares are located adjacent to Boat Harbour and the estuary leading to Boat Harbour. PLFN never agreed to the transfer of those lands as compensation for the adverse impacts of the Boat Harbour Landfill. In fact, 128 hectares of those lands were already promised to PLFN as early as 1992 as consideration for PLFN allowing the continued use of the Boat Harbour treatment facility for fixed term. As such, the Province has a long-standing legal obligation to transfer 128 of the 173 hectares to PLFN and cannot assert that those 128 hectares are being transferred to accommodate PLFN for the adverse impacts of the Boat Harbour Landfill.

10. Even if all 173 hectares were being transferred as compensation for the adverse impacts of the Boat Harbour Landfill, it does not adequately accommodate PLFN. Compensation for impacts to reserve lands must be determined in accordance with the principles set out in the recent decision of the Supreme Court of Canada in *Southwind v. Canada*, 2021 SCC 28, and cannot be imposed unilaterally. *Southwind* requires that compensation be determined through negotiations aimed at obtaining PLFN consent. If consent is obtained, negotiation will result in compensation that reflects both the value of using the Boat Harbour Landfill to the Project and PLFN's own views on the inherent value of its lands and the losses associated with any adverse impacts. Such negotiations have not taken place and the Project should be rejected until PLFN's consent has been obtained and adequate compensation negotiated.

1.7 *Other Lands Available*

11. The Mount William Site is not the only site available to the Province. There are 109 parcels of Crown land and 97 parcels of private land within a 50 km radius of Boat Harbour that may be suitable based on a desktop review of the land and site characteristics. Of these, 15 parcels are within 10 km of Boat Harbour. Another suitable location is the existing landfill owned by Northern Pulp at Abercrombie Point. Northern Pulp has expressed a willingness to explore this option. The Province has not explored any other options.

1.8 *Boat Harbour Landfill Worst Option Based on Environmental Criteria*

12. Using the criteria for siting a hazardous waste landfill developed by NS Environment for the purposes of the Alternative Site Assessment, an analysis of the Mount William Site, the Boat Harbour Landfill site, and the Northern Pulp landfill site, shows that the Boat Harbour Landfill site is inferior to both the Mount William Site and the Northern Pulp landfill site, and that the Northern Pulp landfill site is the best option of them all, as it meets all environmental siting criteria.

1.9 *Mount William Site Issues Could be Overcome with Mitigation Measures*

13. Exceedances of environmental site criteria for any given project can usually be overcome with mitigation measures standard in the industry. The exceedances noted by the Province in its analysis of the Mount William Site could be overcome by appropriate mitigation measures, which the Province has not considered in its Alternative Site Assessment.

1.10 *Conclusion*

14. The Boat Harbour Landfill is not suitable for the long-term storage of hazardous waste from Boat Harbour because it is located on lands over which PLFN has a strong claim for Aboriginal title and constitutes a continuing infringement of PLFN's Section 35 rights since it adversely impacts the use and enjoyment of IR 37 and IR 24G. The Project was put forward by the Province without having made any effort to negotiate a remediation agreement with PLFN as it was honour-bound to do under the Agreement in Principle. The failure to negotiate in good faith is a violation of PLFN's Section 35 rights. The Province has failed to adequately consult with PLFN on the use of the Boat Harbour Landfill. The proposed accommodation is inadequate and was never agreed to by PLFN. The Boat Harbour Landfill site exceeds NS Environment's proposed hazardous waste landfill siting criteria more than Mount William Site does, and the Northern Pulp landfill site is the best site with no exceedances at all. Mitigation could overcome the exceedances associated with the Mount William Site. There are plenty of other sites on Crown land and private land in the vicinity of Boat Harbour that may be suitable and which the Province has not assessed. The Province has fallen short of the goal of reconciliation with respect to the Project insofar as the continued use of the Boat Harbour Landfill is concerned. PLFN continues to oppose the long-term use of the Boat Harbour Landfill to store hazardous waste removed from Boat Harbour during the Project.

2 Introduction

15. The remediation of Boat Harbour is just the latest chapter of a centuries-long fight to retain and protect the traditional lands of the Pictou Landing First Nation. The Mi'kmaq asserted a claim to the lands in the area since the 1700s and PLFN ancestors steadfastly remained on the land in the vicinity of Boat Harbour in the face of purported Crown grants to European settlers.

16. The ancestors persevered and eventually persuaded the Province to set aside a small amount of land in the area for PLFN adjacent Boat Harbour which became known as Indian Reserve No. 24 ("IR 24") where the PLFN community currently resides. Later nearby IR 37 and IR 24G also achieved reserve status.

17. One hundred years later, in 1967, PLFN's lands came under assault from the discharge of 25 million gallons of wastewater each day from the newly established pulp mill at Abercrombie Point. The mill is currently owned by Northern Pulp.

18. The Province's role in the establishment of the Boat Harbour treatment facility was unfortunate and notorious and involved misrepresenting the adverse impacts of the treatment facility on PLFN, paying inadequate compensation, and failing to remediate septic conditions when they arose as agreed.

19. PLFN suffered almost 6 decades of repugnant odors, noise and exposure to contaminants. During that time PLFN kept up its fight for closure of the treatment facility, the cleanup of Boat Harbour, and the return of the lands around Boat Harbour to PLFN.

20. All these things were promised and re-promised to PLFN beginning in 1991 in exchange for PLFN not contesting the continued use of the Boat Harbour treatment facility for ten years and later for an additional 3 years. In the end, in 2010, the Province refused to honour its promises to close the Boat Harbour treatment facility, leading to a lawsuit by PLFN against the Province to force the closure of the treatment facility and the cleanup of Boat Harbour. That lawsuit is still before the court.

21. In 2014, the Province and PLFN entered into the Agreement in Principle, an accommodation agreement, in which the Province promised to enact legislation to close the Boat Harbour treatment facility by a date to be negotiated with PLFN and to negotiate a remediation agreement with PLFN to govern the cleanup of Boat Harbour. The Province selected a closure date, January 31, 2020, when it did not reach an agreement on a closure date with PLFN, and later submitted the within Project for environmental approval without attempting to negotiate a remediation agreement with PLFN.

22. The forgoing is a short summary of the history of Boat Harbour. Submitted with this Response is a document brief summarizing more of the salient facts relating to PLFN's struggle to seek redress for the Boat Harbour treatment facility with supporting documents (the "Document Brief"). The Document Brief is intended to form an integral part of this Response and is incorporated herein by reference.

23. The Province has held only one consultation meeting with PLFN, on April 19, 2018, before deciding that the Project would include the use of the existing Boat Harbour Landfill. PLFN was advised that other options were still being considered. The decision did not take into account important historical material identified by PLFN. The decision was a forgone conclusion.

24. The Boat Harbour Landfill unjustifiably infringes PLFN's Section 35 rights. It went into use in 1996 without PLFN's consent, without adequate consultation, and without any compensation for the admitted adverse impacts on PLFN's use of IR 37 and IR 24G.

25. PLFN put forward the Mount William Site as an alternative to the use of the Boat Harbour Landfill for long-term storage of hazardous waste to be dredged from Boat Harbour during the Project. The Mount William Site is owned by PLFN and is a short distance from Boat Harbour. By IR 82, IAAC requested that the Province conduct a feasibility study on the Mount William Site. The Province the Alternative Site Assessment as its response to IR 82 and has provided a copy to PLFN for comment as required by IR 82.

26. This Response contains PLFN's reasons for opposing the use of the Boat Harbour Landfill as part of the Project, addresses the Alternative Site Assessment, and identifies other alternative sites for investigation.

3 Aboriginal Title

3.1 Overview

27. PLFN asserts Aboriginal title to the lands surrounding Boat Harbour, including the land upon which the Boat Harbour Landfill is located. The strength of the Aboriginal title claim is very strong given the judicial findings in *R. v. Marshall, supra*, and the historical evidence available to the Province. Because of the strength of the claim, the Province has a fiduciary duty to preserve PLFN's interest in the land pending resolution of the claim. If the Province proceeds with increasing the size of the Boat Harbour Landfill in the face of PLFN's claim without PLFN's consent, the Province will be required to remove the contaminants from the Boat Harbour Landfill if the title claim is resolved in PLFN's favour. PLFN never consented to the Boat Harbour Landfill in the first place and could not have done so in any event because such use is compatible with the nature of Aboriginal title. It makes little sense to add more contaminated waste from Boat Harbour to the Boat Harbour Landfill when there is a high probability that it will need to be removed once Aboriginal title is established. The Province is silent on PLFN's land claim in its Alternative Site Assessment and the EIS.

3.2 Assertion of Aboriginal Title Claim

28. The Province is fully aware of PLFN's asserted claim to Aboriginal title to the lands around Boat Harbour. The claim was made explicit in a November 19, 2008 letter to the Province in support of the PLFN's demand for the closure of the Boat Harbour treatment facility (Document Brief, Tab 180, at p. 4).

3.3 Province's Position on Title Claim

29. In Section 1.3 of the EIS, the Province identifies the historical significance of Boat Harbour to PLFN, but does not mention PLFN's claim for Aboriginal title or the Province's position on the claim:

1.3.5 ... Historically, A'se'k was a gathering place where food, knowledge, and skills were exchanged between generations and amongst family groups. The land was traditionally used by the Mi'kmaq for refuge, recreation, fishing, hunting and gathering, as well as for physical, mental, spiritual, and emotional purposes.

30. In section 7.3.15. of the EIS, the Province adopts PLFN's traditional understanding of the boundaries of its traditional territory:

The PLFN Well-Being Baseline Study has identified the following spatial boundary: "...spatial boundaries extend to the traditional territory of the Piktukowaq, including the area in and around A'se'k."

The Regional Study Area, consistent with the MEKS Study Area, encompasses this perspective.

31. Despite the forgoing, the Province has never formally acknowledged PLFN's claim of Aboriginal title to the lands around Boat Harbour or set out its analysis of the strength of the claim.

3.4 *Strength of Aboriginal Title Claim*

32. On March 8, 2001, Chief Judge Patrick Curran of the Nova Scotia Provincial Court released his decision in *R. v. Marshall, supra*. That case dealt with forest harvesting rights on certain inland areas of Nova Scotia. In his decision, at para. 143, Chief Judge Curran "concluded that the Mi'kmaq of the 18th century on mainland Nova Scotia probably had aboriginal title to lands around their local communities". This finding was not disturbed on appeal: *R. v. Marshall*, 2005 SCC 43, at paras. 80-83.

33. The Mi'kmaq Ecological Knowledge Study ("MEKS") report filed as Appendix T to the EIS refers to evidence of a Mi'kmaq village in the vicinity of Boat Harbour in the early 18th century (at p. 26-27):

Within the Study Area, there was an encampment located on the eastern shore of the East River of Pictou, opposite the present-day Loading Ground-Dunbar Point. This location was interpreted by the source from a 1744 map by cartographer Bellin and published by 26 Charlevoix in 1748. The map does depict Pictou Harbour in some detail with "Village Sauvage" calligraphy positioned to the east of the East River of Pictou but could also be intended for the Merigomish-Antigonish location. (20) However, the source backs up their interpretation with accounts by English settlers of the rounded flat point of land being cleared upon their arrival and subsequent ploughing turned up European as well as some early Mi'kmaq artifacts and oyster shells. Similar artifacts and oyster shells were also found in the 1800's during ploughing of William Dunbar's fields at present day Dunbar Point on the western shore of the East River of Pictou. Ploughing of fields at Frasers Point and Middle River Point also turned up an abundance of oyster shells along with stone tools indicating frequent use by early peoples. (19)

There is a known Mi'kmaq burial ground on Indian Cross Point located on a point of land on the eastern shore of the East River of Pictou. The 1877 source reports that a 10-foot high iron cross had stood at that location. Indian Cross Point was known to the Mi'kmaq as *soogunagade* translated as *The Rotting Place*. Indian Cross Point was in use as burial ground by Mi'kmaq until a few years before the 1877 source which reported the burials were marked by rows of flat stones which were already partially grown over by grass at that time. Erosion of the river bank which deposited human bones along the shore was also reported by the source.

34. The combined effect of Chief Judge Curran's finding that the Mi'kmaq probably had Aboriginal title to the lands around their settlements and the historical evidence of a Mi'kmaq settlement adjacent Boat Harbour, suggests that PLFN's claim to Aboriginal title of the lands around Boat Harbour is very strong.

35. Further, *Marshall* was decided before *Tsilhqot'in Nation v. British Columbia*, 2014 SCC 44, which clarified that semi-nomadic Indigenous peoples occupied land beyond the specific

sites of their settlement so as to give rise to Aboriginal title beyond specific sites. The Court held, at para. 50:

Occupation sufficient to ground Aboriginal title is not confined to specific sites of settlement but extends to tracts of land that were regularly used for hunting, fishing or otherwise exploiting resources and over which the group exercised effective control at the time of assertion of European sovereignty.

36. Chief Judge Curran had applied a narrower test in *R. v. Marshall*, *supra*. Under the *Tsilhqot'in* expanded concept of occupation, PLFN's claim would be stronger given that PLFN would not have to prove that lands around Boat Harbour were within a settlement site and would only need to show that the lands were within the tracks of land effectively controlled by PLFN's ancestors and used for hunting, fishing and other activities - which the Province has acknowledged.

37. While Aboriginal title can be extinguished, PLFN's title to the lands around Boat Harbour has not be extinguished.

38. Before Confederation authority to extinguish Aboriginal title rested with the Imperial Crown. This authority could have been delegated by the Imperial Crown to a colonial legislature, however this must be clearly proven. In *Sappier; R. v. Gray*, 2006 SCC 54, at para. 58, the Supreme Court of Canada held that "it is not at all clear that the colonial legislature of New Brunswick was ever granted the legal authority by the Imperial Crown to extinguish aboriginal rights." The same can be said about the colonial legislature of Nova Scotia - it is unlikely that the legislature was ever given authority to extinguish Aboriginal title. The Province bears the burden of proving extinguishment if it is asserted: *R. v. Sappier*, at para. 57.

39. Since Confederation, the Province has had no authority to extinguish Aboriginal title by virtue of s. 91 of the *Constitution Act, 1867* which gave the Dominion of Canada exclusive jurisdiction over "Indians, and Lands reserved for Indians". Canada has exclusive jurisdiction to extinguish Aboriginal title: *Delgamuukw v. British Columbia*, [1997] 3 S.C.R. 1010, at para. 173. Canada has not extinguished Aboriginal title in the lands around Boat Harbour.

40. As indicated above, the Province has not expressed its position on the strength of PLFN's claim of Aboriginal title to the lands around Boat Harbour, but it would appear to be very strong.

3.5 *Impact of Establishing Aboriginal Title*

41. Should PLFN establish Aboriginal title to the lands around Boat Harbour, including the land upon which the Boat Harbour Landfill is located, the use to which the land can be put is limited by the very nature of Aboriginal title itself. Use of Aboriginal title land is subject to the restriction that it cannot be used in a manner which is inconsistent with the relationship of the Aboriginal peoples to the land, in the sense that no activity will be permitted which is akin to equitable waste and which would interfere with the enjoyment of Aboriginal title by future generations. This is an important concept and reviewed extensively in *Delgamuukw*, *supra*, at para. 126-129:

126 I arrive at this conclusion by reference to the other dimensions of aboriginal title which are *sui generis* as well. I first consider the source of aboriginal title. As I discussed earlier, aboriginal title arises from the prior occupation of Canada by aboriginal peoples. That prior occupation is relevant in two different ways: first, because of the physical fact of occupation, and second, because aboriginal title originates in part from pre-existing systems of aboriginal law. However, the law of aboriginal title does not only seek to determine the historic rights of aboriginal peoples to land; it also seeks to afford legal protection to prior occupation in the present-day. Implicit in the protection of historic patterns of occupation is a recognition of the importance of the continuity of the relationship of an aboriginal community to its land over time.

127 I develop this point below with respect to the test for aboriginal title. The relevance of the continuity of the relationship of an aboriginal community with its land here is that it applies not only to the past, but to the future as well. That relationship should not be prevented from continuing into the future. As a result, uses of the lands that would threaten that future relationship are, by their very nature, excluded from the content of aboriginal title.

128 Accordingly, in my view, lands subject to aboriginal title cannot be put to such uses as may be irreconcilable with the nature of the occupation of that land and the relationship that the particular group has had with the land which together have given rise to aboriginal title in the first place. As discussed below, one of the critical elements in the determination of whether a particular aboriginal group has aboriginal title to certain lands is the matter of the occupancy of those lands. Occupancy is determined by reference to the activities that have taken place on the land and the uses to which the land has been put by the particular group. If lands are so occupied, there will exist a special bond between the group and the land in question such that the land will be part of the definition of the group's distinctive culture. It seems to me that these elements of aboriginal title create an inherent limitation on the uses to which the land, over which such title exists, may be put. For example, if occupation is established with reference to the use of the land as a hunting ground, then the group that successfully claims aboriginal title to that land may not use it in such a fashion as to destroy its value for such a use (e.g., by strip mining it). Similarly, if a group claims a special bond with the land because of its ceremonial or cultural significance, it may not use the land in such a way as to destroy that relationship (e.g., by developing it in such a way that the bond is destroyed, perhaps by turning it into a parking lot).

129 It is for this reason also that lands held by virtue of aboriginal title may not be alienated. Alienation would bring to an end the entitlement of the aboriginal people to occupy the land and would terminate their relationship with it. I have suggested above that the inalienability of aboriginal lands is, at least in part, a function of the common law principle that settlers in colonies must derive their title from Crown grant and, therefore, cannot acquire title through purchase from aboriginal inhabitants. It is also, again only in part, a function of a general policy "to ensure that Indians are not dispossessed of their entitlements": see *Mitchell v. Sandy Bay Indian Band*, [1990] 2 S.C.R. 85 (S.C.C.) at p. 133. What

the inalienability of lands held pursuant to aboriginal title suggests is that those lands are more than just a fungible commodity. The relationship between an aboriginal community and the lands over which it has aboriginal title has an important non-economic component. The land has an inherent and unique value in itself, which is enjoyed by the community with aboriginal title to it. The community cannot put the land to uses which would destroy that value.

42. This restriction protects Aboriginal title and Reserve lands for future generations and finds an analogy in the concept of equitable waste at common law. In *Delgamuukw*, *supra*, at para. 130-131:

130 I am cognizant that the *sui generis* nature of aboriginal title precludes the application of "traditional real property rules" to elucidate the content of that title (*St. Mary's Indian Band v. Cranbrook (City)*, [1997] 2 S.C.R. 657 (S.C.C.) at para. 14). Nevertheless, a useful analogy can be drawn between the limit on aboriginal title and the concept of equitable waste at common law. Under that doctrine, persons who hold a life estate in real property cannot commit "wanton or extravagant acts of destruction" (E. H. Burn, *Cheshire and Burn's Modern Law of Real Property* (14th ed. 1988), at p. 264) or "ruin the property" (Robert E. Megarry and H. W. R. Wade, *The Law of Real Property*, 4th ed. (1975) at p. 105). This description of the limits imposed by the doctrine of equitable waste capture the kind of limit I have in mind here.

43. Later in *Delgamuukw* the Court restated that Aboriginal title land cannot be used for purposes inconsistent with its use by future generations. *Delgamuukw*, *supra*, at para 154:

154 I should also note that there is a strong possibility that the precise nature of occupation will have changed between the time of sovereignty and the present. I would like to make it clear that the fact that the nature of occupation has changed would not ordinarily preclude a claim for aboriginal title, as long as a substantial connection between the people and the land is maintained. The only limitation on this principle might be the internal limits on uses which land that is subject to aboriginal title may be put, i.e., uses which are inconsistent with continued use by future generations of aboriginals.

44. The Court in *Tsilhqot'in*, *supra*, recently adopted this analysis at paras. 74-75.

45. Because of this restriction, PLFN could not have consented to any use of Aboriginal title land that is inconsistent with Aboriginal title. This would certainly preclude a hazardous waste landfill. The land would need to be surrendered first before such use was permitted. See *Delgamuukw*, *supra*, at para. 131:

131 Finally, what I have just said regarding the importance of the continuity of the relationship between an aboriginal community and its land, and the non-economic or inherent value of that land, should not be taken to detract from the possibility of surrender to the Crown in exchange for valuable consideration. On the contrary, the idea of surrender reinforces the conclusion that aboriginal title is limited in the way I have described. If aboriginal peoples wish to use their lands

in a way that aboriginal title does not permit, then they must surrender those lands and convert them into non-title lands to do so.

46. Once Aboriginal title is established, and even before, governments may need to reassess their plans for claimed lands. See *Tsilhqot'in*, *supra*, at para. 90:

90 After Aboriginal title to land has been established by court declaration or agreement, the Crown must seek the consent of the title-holding Aboriginal group to developments on the land. Absent consent, development of title land cannot proceed unless the Crown has discharged its duty to consult and can justify the intrusion on title under s. 35 of the *Constitution Act, 1982*. The usual remedies that lie for breach of interests in land are available, adapted as may be necessary to reflect the special nature of Aboriginal title and the fiduciary obligation owed by the Crown to the holders of Aboriginal title.

91 The practical result may be a spectrum of duties applicable over time in a particular case. At the claims stage, prior to establishment of Aboriginal title, the Crown owes a good faith duty to consult with the group concerned and, if appropriate, accommodate its interests. As the claim strength increases, the required level of consultation and accommodation correspondingly increases. Where a claim is particularly strong — for example, shortly before a court declaration of title — appropriate care must be taken to preserve the Aboriginal interest pending final resolution of the claim. Finally, once title is established, the Crown cannot proceed with development of title land not consented to by the title-holding group unless it has discharged its duty to consult and the development is justified pursuant to s. 35 of the *Constitution Act, 1982*.

92 Once title is established, it may be necessary for the Crown to reassess prior conduct in light of the new reality in order to faithfully discharge its fiduciary duty to the title-holding group going forward. For example, if the Crown begins a project without consent prior to Aboriginal title being established, it may be required to cancel the project upon establishment of the title if continuation of the project would be unjustifiably infringing. Similarly, if legislation was validly enacted before title was established, such legislation may be rendered inapplicable going forward to the extent that it unjustifiably infringes Aboriginal title.

47. Clearly, it would be reckless for the Province to proceed to add 9 times as much contaminated sludge to the Boat Harbour Landfill as already exists there, considering PLFN's strong claim for Aboriginal title to those lands and its opposition to the landfill.

48. The continued use of the Boat Harbour Landfill would clearly be an unjustified infringement of Aboriginal title. The infringement analysis set out more fully below in the context of adverse impacts on the use of IR 37 and IR 24G, would apply equally to the interference with Aboriginal title.

4 Existing Boat Harbour Landfill Infringes s. 35 Rights

4.1 Overview

49. The existing Boat Harbour Landfill is an unjustified infringement on PLFN's Section 35 Aboriginal and treaty rights. The Province acknowledges that the existing landfill limits the use of IR 35 and IR 24G. The existing landfill was commissioned in 1996 without the consent of PLFN or Canada. PLFN was never compensated for the adverse impacts of the Boat Harbour Landfill on IR 37 and IR 24G. The infringement of PLFN's rights to the full use of its reserves lands is not justified under the *Sparrow* test. The Honour of the Crown prevents the Province from relying on the existence of the Boat Harbour Landfill as a reason to justify its continued and expanded use, so long as it continues to infringe PLFN's Section 35 rights.

4.2 Boat Harbour Landfill an Infringement

50. The Province acknowledges in the EIS that the existing Boat Harbour Landfill interferes with the use and enjoyment of IR 37 and IR 24G. From the EIS s. 6.4.2.2, at p. 6-14:

The existing containment cell is situated between IR 37 and IR 24G as shown on Figure 1.2-1. It does result in some limitation on land use in the areas around the existing containment cell and future modern containment cell. (Emphasis added)

4.3 Sparrow Justification Test

51. Aboriginal rights, including Aboriginal title, are not absolute and may be infringed by government: *Tsilhqot'in*, *supra*, at paras. 16 and 18. However, the Crown must justify the infringement using the analysis first articulated in *Sparrow: Tsilhqot'in*, *supra*, at para. 16; *Delgamuukw*, *supra*, at para. 160.

4.3.1 Step One - Identify Aboriginal Right

52. The first step in the *Sparrow* analysis is to identify the Aboriginal right alleged to be infringed. In this case, it is interference with the use and enjoyment of reserve lands caused by the restricted uses to which the land can be put as a result of the existing Boat Harbour Landfill, which precludes its use for residential purposes and other purposes.

4.3.2 Step Two - Justification Analysis - First Stage - Prima Facie Infringement

53. Once an Aboriginal right has been identified the second step is a two-stage justification analysis. The first stage of the justification analysis is to determine if a prima facie case of infringement of the identified right has been made out. This involves asking if the government action interferes with an existing Aboriginal right. From *Sparrow*, *supra*, at para. 68:

68 The first question to be asked is whether the legislation in question has the effect of interfering with an existing aboriginal right. If it does have such an effect, it represents a prima facie infringement of s. 35(1). Parliament is not

expected to act in a manner contrary to the rights and interests of aboriginals, and, indeed, may be barred from doing so by the second stage of s. 35(1) analysis.

54. Given the Province's acknowledgement that the existing Boat Harbour Landfill has had, and will continue to have, an adverse impact on IR 37 and IR 24G (see EIS s. 6.4.2.2, at p. 6-14), PLFN will have no trouble establishing a prima facie infringement.

4.3.3 Step Two - Justification Analysis - Second Stage - Justification

4.3.3.1 General

55. For this stage the onus shifts to the Crown: *Sparrow, supra*, para. 87. The justification stage of the analysis also has two parts. Under the first part, the government must establish a valid legislative objective. If it does, the analysis moves to the second part which examines whether, considering the trust-like nature of the relationship between the Crown and Indigenous peoples, the government has appropriately recognized and affirmed the Aboriginal or Treaty right in the decision-making process. From *Sparrow, supra*, at para. 71 and 75:

71 If a prima facie interference is found, the analysis moves to the issue of justification. This is the test that addresses the question of what constitutes legitimate regulation of a constitutional aboriginal right. The justification analysis would proceed as follows. First, is there a valid legislative objective? Here the court would inquire into whether the objective of Parliament in authorizing the department to enact regulations regarding fisheries is valid. The objective of the department in setting out the particular regulations would also be scrutinized. An objective aimed at preserving s. 35(1) rights by conserving and managing a natural resource, for example, would be valid. Also valid would be objectives purporting to prevent the exercise of s. 35(1) rights that would cause harm to the general populace or to aboriginal peoples themselves, or other objectives found to be compelling and substantial.

75 If a valid legislative objective is found, the analysis proceeds to the second part of the justification issue. Here, we refer back to the guiding interpretive principle derived from *Taylor* and *Guerin, supra*. That is, the honour of the Crown is at stake in dealings with aboriginal peoples. The special trust relationship and the responsibility of the government vis-à-vis aboriginals must be the first consideration in determining whether the legislation or action in question can be justified.

4.3.3.2 Valid Objective

56. The first part of the justification stage involves analyzing the government objective behind the activity leading to the infringement. In the present case, the pulp mill was in operation in 1994 when the Boat Harbour Landfill was first approved and when it was commissioned in 1996. The landfill provided a place for the storage of toxic sludge that had built up in prior years and had to be removed from that part of the Boat Harbour treatment facility known as the aerated stabilization basin ("ASB"). Removal of the build up of contaminated sediments in the ASB was

a condition of the transfer of operational responsibility for the treatment facility from the Province to Scott Maritimes Limited, the owner of the pulp mill. Otherwise, under the terms of a wastewater agreement between the Province and Scott Maritimes, the Province would have been obligated to operate the treatment facility for an additional 25 years had Scott Maritimes exercised its right to renew the wastewater agreement for a second term.

57. Cleaning the ASB was done to improve operational efficiency of the Boat Harbour treatment facility in removing contaminants from the mill wastewater, allowing the wastewater to meet the more stringent requirements of the new Pulp and Paper Effluent Regulations (“PPER”). Scott Maritimes would not take over operational responsibility for the treatment facility if the wastewater could not meet the new PPER requirements.

58. The purpose of cleaning the ASB was therefore to allow the Province to transfer operational responsibility to the mill owner and thereby avoid a contractual obligation to operate the treatment facility for another 25 years. The objective of the Province in building the Boat Harbour Landfill was therefore to avoid future responsibility for the operation of the Boat Harbour treatment facility under the wastewater agreement.

59. A broad range of interests are capable of justifying an infringement. From *Tsilhqot’in*, *supra*, at para. 83:

83 What interests are potentially capable of justifying an incursion on Aboriginal title? In *Delgamuukw*, this Court, per Lamer C.J., offered this:

In the wake of *Gladstone*, the range of legislative objectives that can justify the infringement of [A]boriginal title is fairly broad. Most of these objectives can be traced to the reconciliation of the prior occupation of North America by [A]boriginal peoples with the assertion of Crown sovereignty, which entails the recognition that "distinctive [A]boriginal societies exist within, and are a part of, a broader social, political and economic community" (at para. 73). In my opinion, the development of agriculture, forestry, mining, and hydroelectric power, the general economic development of the interior of British Columbia, protection of the environment or endangered species, the building of infrastructure and the settlement of foreign populations to support those aims, are the kinds of objectives that are consistent with this purpose and, in principle, can justify the infringement of [A]boriginal title. Whether a particular measure or government act can be explained by reference to one of those objectives, however, is ultimately a question of fact that will have to be examined on a case-by-case basis. [Emphasis added; emphasis in original deleted; para 165]

60. However, in *Sparrow*, *supra*, at paras. 71-72, the SCC found that a general goal of the public interest was too vague an objective and was neither compelling nor substantial:

71 If a *prima facie* interference is found, the analysis moves to the issue of justification. This is the test that addresses the question of what constitutes

legitimate regulation of a constitutional aboriginal right. The justification analysis would proceed as follows. First, is there a valid legislative objective? Here the court would inquire into whether the objective of Parliament in authorizing the department to enact regulations regarding fisheries is valid. The objective of the department in setting out the particular regulations would also be scrutinized. An objective aimed at preserving s. 35(1) rights by conserving and managing a natural resource, for example, would be valid. Also valid would be objectives purporting to prevent the exercise of s. 35(1) rights that would cause harm to the general populace or to aboriginal peoples themselves, or other objectives found to be compelling and substantial.

72 The Court of Appeal below held, at p. 331, that regulations could be valid if reasonably justified as "necessary for the proper management and conservation of the resource *or in the public interest*" (emphasis added). We find the "public interest" justification to be so vague as to provide no meaningful guidance and so broad as to be unworkable as a test for the justification of a limitation on constitutional rights.

61. In the present case, it appears that the object of the Boat Harbour Landfill was to avoid liability under the wastewater agreement which was generally in the public interest. However, the benefit of this seems equally vague.

62. Moreover, to meet the justification test, the government objective must be sufficiently compelling and substantial to justify interference with an Aboriginal or treaty right, and whether it is compelling and substantial rests on whether it furthers the goal of reconciliation, considering the Indigenous perspective as well as the perspective of the general public. See *Tsilhqot'in*, *supra*, at paras. 81-82:

81 I agree with the Court of Appeal that the compelling and substantial objective of the government must be considered from the Aboriginal perspective as well as from the perspective of the broader public. As stated in *Gladstone*, at para. 72:

[T]he objectives which can be said to be compelling and substantial will be those directed at either the recognition of the prior occupation of North America by [A]boriginal peoples or — and at the level of justification it is this purpose which may well be most relevant — at the reconciliation of [A]boriginal prior occupation with the assertion of the sovereignty of the Crown. [Emphasis added by SCC]

82 As *Delgamuukw* explains, the process of reconciling Aboriginal interests with the broader interests of society as a whole is the *raison d'être* of the principle of justification. Aboriginals and non-Aboriginals are "all here to stay" and must of necessity move forward in a process of reconciliation (para. 186). To constitute a compelling and substantial objective, the broader public goal asserted by the government must further the goal of reconciliation, having regard to both the Aboriginal interest and the broader public objective.

63. The onus will be on the Province to explain what the objective was when the Boat Harbour Landfill was built, how it took into account PLFN's perspective, and how it furthered the goal of reconciliation. PLFN maintains that the construction of the Boat Harbour Landfill did nothing to accommodate its interests and in fact, as noted above, had the effect of further limiting the use and enjoyment of its reserve lands on IR 37 and IR 24G. If, as suggested above, the decision to create and use the Boat Harbour Landfill to store hazardous waste from the ASB was simply to avoid responsibility for operating the treatment facility for another 25 years, the objective will not be sufficiently compelling or substantial to justify an infringement, and the justification analysis will end there.

4.3.3.3 Reconciliation

64. Assuming that a valid objective is found, the justification inquiry moves to the second part which considers whether the government has properly reconciled the rights of the Indigenous community with the honour of the Crown.

65. The principles applicable on second part of the justification test were recently summarized by Kent, J. in *Thomas, supra*, at para. 591:

591 Having found that the continued presence and operation of the Kenney Dam and related reservoir infringes the plaintiffs' Aboriginal right to fish, the next question is whether such infringement is justified. Earlier in these reasons, I summarized the concept of justified infringement articulated in *Sparrow* and *Tsilhqot'in*:

...

- Justification also requires that the Crown has (1) discharged its procedural duty to consult and accommodate Aboriginal interests to the degree required by the circumstances; and, (2) otherwise satisfied its duty to act honourably, including compliance with any fiduciary duty arising from assumed discretionary control of specific Aboriginal interests.
- Justification requires that any infringement of Aboriginal interests be necessary and rationally connected to the objective, as minimally intrusive as possible, and also properly proportionate in the sense that the perceived benefits are not outweighed by adverse effects on the Aboriginal interest.

66. Kent, J. in *Thomas, supra*, at para. 601, found that the goal of maximizing capacity for an aluminum smelter did not outweigh the adverse impacts on Aboriginal fishing rights and did not meet the justification test:

601 If I was compelled to decide the matter, I would likely determine that RTA's desire to operate at maximum capacity does not outweigh the resulting adverse

effects on the plaintiffs' Aboriginal interests and that the latter infringement is no longer justified. I would first emphasize, however, that a good-faith process of consultation and accommodation with the plaintiffs about their concerns might well lead to a resolution acceptable to all parties. The courts have stated many times that such negotiated outcomes are the preferable approach to such disputes.

67. Various factors are taken into account on this part of the justification test depending on the circumstances.

68. The Supreme Court of Canada in *Sparrow* noted that one of the factors that may need to be considered under the second part of the justification test is whether fair compensation is available in an expropriation case: *Sparrow, supra*, at para. 82.

69. Justification must be considered in light of the Honour of the Crown, recognizing the unique non-adversarial relationship between the Crown and Indigenous peoples: *Sparrow, supra*, at para. 71-79; *R. v. Badger*, 1996 CarswellAlta 587, at para. 41 (per Cory J.); *Delgamuukw, supra*, at para. 160-169.

70. In some cases, Aboriginal rights must be prioritized over others. For example, in *Sparrow*, the Supreme Court of Canada held that to meet the second part of the justification test, a fisheries conservation scheme would have to give priority to the Aboriginal food fishery after the interests of conservation were met. Only this would be consistent with the protection of the Aboriginal right at stake and uphold the Honour of the Crown. From *Sparrow, supra*, at para. 78:

78 The constitutional nature of the Musqueam food fishing rights means that any allocation of priorities after valid conservation measures have been implemented must give top priority to Indian food fishing. If the objective pertained to conservation, the conservation plan would be scrutinized to assess priorities. While the detailed allocation of maritime resources is a task that must be left to those having expertise in the area, the Indians' food requirements must be met first when that allocation is established. The significance of giving the aboriginal right to fish for food top priority can be described as follows. If, in a given year, conservation needs required a reduction in the number of fish to be caught such that the number equalled the number required for food by the Indians, then all the fish available after conservation would go to the Indians according to the constitutional nature of their fishing right. If, more realistically, there were still fish after the Indian food requirements were met, then the brunt of conservation measures would be borne by the practices of sport fishing and commercial fishing.

71. The justification analysis also takes account of the nature of the Crown's fiduciary duty and the nature of Aboriginal title. See *Delgamuukw, supra*, at para. 165:

166 The manner in which the fiduciary duty operates with respect to the second stage of the justification test — both with respect to the standard of scrutiny and the particular form that the fiduciary duty will take — will be a

function of the nature of aboriginal title. Three aspects of aboriginal title are relevant here. First, aboriginal title encompasses the right to *exclusive* use and occupation of land; second, aboriginal title encompasses *the right to choose* to what uses land can be put, subject to the ultimate limit that those uses cannot destroy the ability of the land to sustain future generations of aboriginal peoples; and third, that lands held pursuant to aboriginal title have an inescapable *economic component*.

72. One aspect of Aboriginal title that is important in this context is the limitation placed on the use of Aboriginal title land, and by extension reserve land, by the very nature of Aboriginal title itself. As noted above, Aboriginal title land is subject to the restriction that it cannot be used in a manner which is inconsistent with the relationship of the Aboriginal peoples to the land; in the sense that no activity will be permitted which is akin to equitable waste and which would interfere with the enjoyment of Aboriginal title lands by future generations. From *Tsilhqot'in*, *supra*, at paras. 84-86:

84 If a compelling and substantial public purpose is established, the government must go on to show that the proposed incursion on the Aboriginal right is consistent with the Crown's fiduciary duty towards Aboriginal people.

85 The Crown's fiduciary duty in the context of justification merits further discussion. The Crown's underlying title in the land is held for the benefit of the Aboriginal group and constrained by the Crown's fiduciary or trust obligation to the group. This impacts the justification process in two ways.

86 First, the Crown's fiduciary duty means that the government must act in a way that respects the fact that Aboriginal title is a group interest that inheres in present and future generations. The beneficial interest in the land held by the Aboriginal group vests communally in the title-holding group. This means that incursions on Aboriginal title cannot be justified if they would substantially deprive future generations of the benefit of the land.

73. The list of factors taken into account on the justification test is not exhaustive. At the heart of the justification analysis is whether the Crown has respected Aboriginal rights. See *Sparrow*, *supra*, at para. 83:

83 We would not wish to set out an exhaustive list of the factors to be considered in the assessment of justification. Suffice it to say that recognition and affirmation requires sensitivity to and respect for the rights of aboriginal peoples on behalf of the government, courts and, indeed, all Canadians.

74. Applying the following factors to the Boat Harbour Landfill leads to the conclusion that the infringement was, and is, not justified.

4.3.3.3.1 Factor #1 - Nature of PLFN's Interest in its Reserve Lands

75. The existing Boat Harbour Landfill impacts the use and enjoyment of reserve lands. These impacts have continued since 1996 when the landfill became operational. This has resulted in a substantial deprivation of the benefit of IR 37 and IR 24G by future generations. This alone causes the existing Boat Harbour Landfill to fail the justification test: *Tsilhqot'in, supra*, at paras. 84-86. Because of their status as reserve lands, nothing can justify the permanent restrictions on the use of IR 37 or IR 24G by future generations.

4.3.3.3.2 Factor #2 - Minimal Impact

76. Other options were available to the Province for the disposal of the toxic sludge from the ASB at Boat Harbour which would not have had any impact on IR 37 or IR 24G. Specifically, the Province could have built a landfill on other Crown lands nearby and trucked the contaminated material there. Had the same approval process been in place for another site, there is little doubt that another site would have been approved. There were plenty of Crown lands in the area near Boat Harbour. The Province did not even consider other locations.

4.3.3.3.3 Factor #3 - Proportionality

77. The actual benefits to the Province from transferring responsibility for the Boat Harbour treatment facility are not fully known to PLFN, so it is difficult to assess whether the infringement caused by the existing Boat Harbour Landfill was proportional to the benefit. The onus is on the Province to establish this.

78. One of the benefits was likely the savings the Province realized by transferring operation of the Boat Harbour treatment facility to Scott Maritimes. The transfer was effected through a memorandum of understanding and a lease of the Boat Harbour treatment facility lands to Scott Maritimes. The lease was originally for a term of 10 years from January 1, 1996 to December 31, 2005. However, the Province extended the lease in 2002 to December 31, 2030, notwithstanding earlier commitments to PLFN to close and remediate Boat Harbour.

79. PLFN did not oppose the original 10-year term on the understanding that the treatment facility would be permanently closed after the lease expired. It did not oppose the extension of the lease to 2030 on the condition that new mill owner Kimberly Clark would build a bypass pipeline through Boat Harbour by December 31, 2005 that would have allowed the stabilization basin to be remediated and returned to tidal in 2006.

80. The bypass pipeline was not installed by the end of 2005 because it was not feasible. PLFN did not oppose the continued use of Boat Harbour for 3 more years on the understanding that an alternative to the bypass pipeline would be achieved.

81. At the end of 2008, when no alternatives had been identified, PLFN insisted that the Province proceed with the closure of the treatment facility and the remediation of Boat Harbour as promised. The Province agreed to do so, but then refused, leading to a lawsuit by PLFN in 2010, which is still before the Court. Finally in 2014, as discussed more fully below, the Province committed to close the treatment facility which it did on January 31, 2020.

82. As the Province points out in the Alternative Site Assessment, it is now being sued by Northern Pulp for the early closure of the Boat Harbour treatment facility. It appears that any

money saved by having the mill owner take over operation of the treatment facility could be outweighed by the \$450 million claim Northern Pulp has advanced against the Province. If so, the limited benefit to the Province would suggest that the adverse impacts on IR 37 and IR 24G were not proportional to the benefit received by the Province.

4.3.3.3.4 Factor #4 - Consultation and Accommodation

83. Consultation on the construction of the Boat Harbour Landfill was minimal. The Province advised PLFN that it was going to construct the landfill at one or more meetings of the Boat Harbour Negotiation Committee. That committee was set up to plan for the closure of the Boat Harbour treatment facility and subsequent remediation of Boat Harbour, as the Province had committed to in 1991.

84. How much information was provided is not clear. It was clearly insufficient since the record shows that representatives of both PLFN and Canada were shocked at the scale of the landfill once construction began (Document Brief, Tab76).

85. Neither Canada nor PLFN were ware of, nor involved in, any environmental assessment process, if one occurred at all.

86. As discussed in more detail below, when reserve lands are affected, the duty to consult is at the higher end of the scale and will require the consent. Further, where established Aboriginal interests are affected, consent may be required if the infringement is serious and leads to irreparable damage: *Haida Nation, supra*, at para. 48.

87. PLFN did not consent to the construction of the Boat Harbour Landfill. In fact, as noted above, PLFN could not consent to such long-term adverse impacts on its reserve lands because of the communal nature of its right in reserve lands, which are intended to benefit future generations as well as present members.

4.3.3.3.5 Factor #5 - Compensation

88. PLFN has never been compensated for the adverse impacts of the Boat Harbour Landfill on IR 37 and IR 24G.

4.4 *Conclusion re Infringement*

89. In summary, the existing Boat Harbour Landfill is an unjustified infringement of PLFN's rights to the use and enjoyment of IR 37 and IR 24G. The Province's objective in building the landfill was not sufficiently compelling and substantial to justify the infringement. The landfill does not meet the first part of the *Sparrow* test. Even if the Province could establish a valid objective, the landfill fails the second part of the justification test because it does not further the goals of reconciliation or consider PLFN's perspective. The landfill does not minimally impair PLFN's rights as it could have been placed elsewhere with no impact. The general benefit to the Province from placing the landfill at Boat Harbour was not proportionate to the long-term interference with PLFN's use and enjoyment of its reserve lands. While minimal consultation took place, it was insufficient and there was no accommodation of PLFN's rights. Nor was

consent obtained or compensation ever paid. The longstanding existence of the Boat Harbour Landfill cannot now be used to justify the long-term storage contaminants from Boat Harbour. It has always infringed PLFN's Section 35 rights and should not be considered as a comparator for alternative sites.

5 Province Failed to Negotiate Remediation Agreement as Promised

5.1 Overview

90. The Agreement in Principle of June 16, 2014 is an accommodation agreement flowing from the Province's duty to consult and accommodate PLFN under Section 35. The Agreement in Principle imposes a constitutional obligation on the Province to negotiate in good faith the terms of an agreement with PLFN governing the remediation of Boat Harbour. No negotiations toward a remediation agreement have ever taken place. Instead, the Province has unilaterally opted to use the existing Boat Harbour Landfill to store contaminants from Boat Harbour without the consent of PLFN, even though PLFN opposes it. While the Province has made considerable efforts to explain the reasons for its decision to do so, moving ahead without attempting to negotiate a remediation agreement is a breach of the Agreement in Principle and is inconsistent with the Province's constitutional duty to act honourably in its dealings with PLFN. Considering the Province's breach of the Agreement in Principle, the proposed use of the Boat Harbour Landfill cannot be considered or condoned for the long-term storage of hazardous waste.

5.2 2014 Agreement in Principle

91. On June 10, 2014, the pipeline carrying wastewater to Boat Harbour burst in the vicinity of Indian Cross Point near a Mi'kmaq burial site (Document Brief, Tab 269, at para. 49, Tab 253, para. 25-27). PLFN set up a blockade and refused to allow any repairs to the pipeline (Document Brief, Tab 269, para. 51, Tab 253, para. 28).

92. This led to further and immediate consultation between PLFN and the Province which resulted in a promise by the Province to accommodate PLFN's rights by closing the treatment facility within a reasonable period of time and remediating Boat Harbour. This was documented in the Agreement in Principle on June 16, 2014 (Document Brief, Tab 169, para. 52 and 53, Tab 253, para. 28, Tab 262, para. 162, Tab 247).

93. The Agreement in Principle bound the Province to introduce legislation no later than June 30, 1995 to fix a date for the closure of the Boat Harbour treatment facility and to negotiate in good faith with PLFN to reach an agreement on (1) the closure date, (2) the remediation of Boat Harbour, and (3) the identification and protection of burial sites at Indian Cross Point.

5.3 s. 35 Accommodation Agreement

94. In proceedings between the Province and PLFN in *Nova Scotia (Aboriginal Affairs) v. Pictou Landing First Nation*, 2019 NSCA 75, at paras. 1, 2 and 162, the Nova Scotia Court of Appeal referred to the fixing of a closure date for the Boat Harbour treatment facility in the *Boat Harbour Act*, as promised in the Agreement in Principle, as "a partial accommodation by the Crown to PLFN". By the same logic, the commitment to negotiate a remediation agreement as set out in the Agreement in Principle must also be "a partial accommodation by the Crown to PLFN".

95. As discussed more fully below, the duty to consult and accommodate arises under Section 35 of the *Constitution Act, 1982*, which recognizes and affirms existing Aboriginal and treaty

rights. It is a constitutional duty giving rise to constitutional rights.

96. An agreement respecting accommodation mandated by Section 35 gives rise to constitutionally recognized Aboriginal rights. In fact, any change to agreed upon accommodation measures triggers a new duty to consult and accommodate under Section 35 with respect to the proposed change to the accommodation measures already in place: *Nunatsiavut v. Canada (Department of Fisheries and Oceans)*, 2015 FC 492, at para. 344.

5.4 *Province has not Negotiated in Good Faith*

97. Despite the commitment to do so in the Agreement in Principle and the terms of reference of the committee formed following the Agreement in Principle (the “Boat Harbour Committee”) (see EIS, Appendix I, p. 8), the Province has not engaged in good faith negotiations with PLFN towards an agreement governing the Boat Harbour remediation.

98. This is consistent with the Province’s approach regarding the date for closing the Boat Harbour treatment facility. The Province initially entered into negotiations with PLFN on a closure date, but when no agreement was reached, the Province unilaterally chose a date and introduced Bill 89, the *Boat Harbour Act*, which received Royal Assent on May 11, 2015 (Document Brief, Tab 250, Tab 269, para. 55). The *Boat Harbour Act* fixed January 31, 2020 as the legislated deadline for using the Boat Harbour treatment facility.

99. With respect to a remediation agreement, the Province never put forward a draft remediation agreement or engaged in discussions of the possible terms of a remediation agreement. PLFN put forward the position that a joint project committee be established with an equality of voting rights as between PLFN and the Province to govern the remediation project. The Province rejected this approach.

100. Instead of negotiating a remediation agreement, the Province has chosen to “engage” with PLFN representatives and members outside of a formal negotiation or consultation process and to make unilateral decisions concerning the remediation project on a piecemeal basis.

101. The most significant unilateral decisions to date are the decision not to include the removal and clean up the existing Boat Harbour Landfill in the Project and the decision to instead expand the existing landfill with the intent of permanently placing contaminants to be dredged from Boat Harbour in it.

5.5 *Failure to Negotiate Agreement a Breach of the Crown’s Duty to Act Honourably*

102. The Crown has a constitutional duty under Section 35 to honour its commitments to Indigenous peoples. The Honour of the Crown is engaged in the interpretation and implementation of more than just treaties, and is also engaged vis-à-vis agreements which are meant to resolve disputes over Treaty or Aboriginal rights: *Muskoday First Nation v. Saskatchewan*, 2016 SKQB 73, at paras. 37-39; *George Gordon First Nation v. R.*, 2020 SKQB 90, at para. 93; *Manitoba Metis Federation Inc v. Brian Pallister et al.*, 2021 MBCA 47, at paras. 22, 23, 57. This would include accommodation agreements.

103. As noted above, once agreed upon, any changes to accommodation measures trigger a new duty to consult and accommodate with respect to proposed changes to the accommodation measures already in place: *Nunatsiavut v. Canada (Department of Fisheries and Oceans)*, *supra*, at para. 344.

104. The Province has not initiated any consultation regarding changes to the Agreement in Principle. PLFN has not agreed to any such changes or waived its rights under the Agreement in Principle. The Crown has a duty to honour the Agreement in Principle. Moreover, the Province cannot contract out of its duty of honourable dealing. From *Beckman v. Little Salmon/Carmacks First Nation*, *supra*, at para. 61:

I think this argument is unpersuasive. The duty to consult is treated in the jurisprudence as a means (in appropriate circumstances) of upholding the honour of the Crown. Consultation can be shaped by agreement of the parties, but the Crown cannot contract out of its duty of honourable dealing with Aboriginal people. As held in *Haida Nation* and affirmed in *Mikisew Cree*, it is a doctrine that applies independently of the expressed or implied intention of the parties.

105. The Province therefore has a duty to comply with the accommodation measures set out in the Agreement in Principle, including the obligation to negotiate with PLFN in good faith towards an agreement governing the remediation of Boat Harbour. It has not done so. PLFN intends to ensure compliance with the Agreement in Principle.

5.6 *Conclusion re Lack of Remediation Agreement*

106. The Agreement in Principle gave rise to Section 35 rights. The Province has not attempted in good faith to reach an agreement on remediation with PLFN as it agreed to do in the Agreement in Principle. This is inconsistent with the Province's duty to act honourably in its dealings with PLFN. Instead, it has put forward the Project which contemplates the use of the Boat Harbour Landfill for long-term storage of hazardous waste, which PLFN opposes. An option put forward in breach of an accommodation agreement and in breach of the Crown's duty to act honourably cannot be considered and should not be used as a comparator for other options.

6 Consultation Inadequate to Date

6.1 Overview

107. The Province has not adequately consulted with PLFN on the use of the existing Boat Harbour Landfill for the long-term storage of hazardous waste. The extent of consultation has not been minimal. The Province did not give PLFN an adequate opportunity to make submissions and present evidence on the use of the Boat Harbour Landfill. It had already made up its mind that the existing landfill would be used in the Project. Later, the province failed to consult with PLFN before deciding to add more than 81,000 m³ of additional hazardous waste from the ASB to the Boat Harbour Landfill and accordingly releasing Northern Pulp from its obligation to remove the waste from the ASB and dispose of it in Northern Pulp's landfill. A proposal put forward in breach of the duty to consult cannot be considered and should not be used as a comparator for other options.

6.2 Principles governing the Duty to Consult

108. Section 35 requires the Crown to consult with Indigenous people whenever the Crown contemplates an activity or a decision that may adversely impact an Aboriginal or Treaty right whether established or claimed.

109. The duty to consult flows from the Honour of the Crown and applies even when Aboriginal claims and interests are uncertain or in dispute: *Haida Nation*, *supra*, at para. 35. From *Taku River Tlingit First Nation v. British Columbia (Project Assessment Director)*, 2004 SCC 74, at para. 24:

The duty of honour derives from the Crown's assertion of sovereignty in the face of prior Aboriginal occupation. It has been enshrined in s. 35(1) of the *Constitution Act, 1982*, which recognizes and affirms existing Aboriginal rights and titles. Section 35(1) has, as one of its purposes, negotiation of just settlement of Aboriginal claims. In all its dealings with Aboriginal peoples, the Crown must act honourably, in accordance with its historical and future relationship with the Aboriginal peoples in question. The Crown's honour cannot be interpreted narrowly or technically, but must be given full effect in order to promote the process of reconciliation mandated by s. 35(1).

110. The trigger for the duty to consult is low: *Mikisew Cree*, *supra*, at para. 34. However, the scope of consultation will vary depending on the strength of the claimed rights and the degree of harm posed by the potential adverse impacts on those rights: *Haida Nation*, *supra*, at para. 39. From *Delgamuukw*, *supra*, at para. 168.

There is always a duty of consultation. . . . The nature and scope of the duty of consultation will vary with the circumstances. In occasional cases, when the breach is less serious or relatively minor, it will be no more than a duty to discuss important decisions that will be taken with respect to lands held pursuant to aboriginal title. Of course, even in these rare cases when the minimum acceptable standard is consultation, this consultation must be in good faith, and with the

intention of substantially addressing the concerns of the aboriginal peoples whose lands are at issue. In most cases, it will be significantly deeper than mere consultation. Some cases may even require the full consent of an aboriginal nation, particularly when provinces enact hunting and fishing regulations in relation to aboriginal lands.

111. The duty to consult promotes negotiation before any infringement of a right has taken place: Richard F. Devlin & RONALDA MURPHY, “*Contextualizing the Duty to Consult: Clarification or Transformation?*” (2003) 14 *Nat'l J. Const. L.* 167 at 214.

112. Consultation after a decision is made is inadequate: *Musqueam Indian Band v. British Columbia (Minister of Sustainable Resource Management)*, 2005 CarswellBC 472 BCCA, at para. 95. From *Musqueam*, *supra*, at para. 95:

The Musqueam should have had the benefit of an earlier consultation process as opposed to a series of counter-offers following the decision by LWBC to proceed with the sale.

113. The duty to consult considers the process by which the infringing activity is planned and whether that process is compatible with the Honour of the Crown: *Mikisew Cree*, *supra*, at para. 59.

114. Consultation seeks to avoid the government indifference and lack of respect that impedes reconciliation: *Beckman v. Little Salmon/Carmacks First Nation*, 2010 SCC 53, at para. 55.

115. While there is no duty on the Crown to reach an agreement with an Aboriginal people over an intended government action, the Crown must be willing to make changes to its proposal in light of information that it receives during the consultation: *Taku River*, *supra*, at para. 29.

116. Where established Aboriginal rights are affected, consent of the Aboriginal group may be required if the infringement is serious and leads to irreparable damage: *Haida Nation*, *supra*, at para. 48.

117. The duty to consult rests with the government alone and cannot be delegated to third parties, although some procedural aspects may be delegated: *Haida Nation*, *supra*, at para. 52.

118. The Crown may choose to carry out some of the required consultation within an environmental assessment process, but the Crown must advise the Indigenous group involved that it intends to do so and provide a meaningful opportunity for the group to address concerns about the proposed process: *Clyde River*, *supra*, at para. 27.

6.3 *Extent of Consultation*

119. While the Province has “engaged” extensively with PLFN in respect of the remediation of Boat Harbour, it has chosen to do so outside the formal on-the-record consultation process under the *Terms of Reference for a Mi'kmaq/Nova Scotia/Canada Consultation Process* (“TOR”) (Document Brief, Tab 174).

120. The limited extent of formal consultation can be seen from the consultation record set out in Appendix J of the Province's EIS.

121. The Province initiated formal consultation on April 18, 2018 (EIS, Appendix J, p. 36).

122. The following day, on April 19, 2018, the first and only consultation meeting took place. At that time a document entitled *Summary of the Remedial Options Decision Document* (EIS, Appendix J, p. 56) was presented to PLFN summarizing the remediation options the Province's consultants, GHD, had considered (the "*Remedial Options Summary*").

123. The document summarized a lengthier report prepared much earlier by GHD for the Province entitled *Design Requirements Document for the Boat Harbour Remediation Planning and Design* ("*Design Requirements Document*") and dated September 12, 2017.

124. The record from the April 19, 2018 consultation meeting (Document Brief, Tab 273) shows that PLFN raised concerns about the proposal to use the existing Boat Harbour Landfill for the permanent storage of hazardous waste from Boat Harbour as set out in the *Remedial Options Summary*. The Province advised that no decision had yet been made on the use of the Boat Harbour Landfill and other options were still being considered. The relevant portion of the minutes are reproduced here for convenience:

Waste Management Component

- 1,224,000m³ in place, after dewatering, 517,000m³.
- Two options: onsite disposal or offsite disposal.
- Onsite would mean storing in existing cell that is approved to take it. It would be capped similarly to the Tar Ponds site in Sydney.
- Offsite disposal has challenges as there is currently no approved disposal facility that is approved to accept it.
- PLFN asked if there are currently any issues with the Tar Ponds site. GHD answered that there isn't.
- PLFN feels that they communicated to their community members that at the end of remediation, everything would be gone. Storing waste onsite goes against that message.
- PLFN asked when it would be known if the waste can go offsite. GHD answered that they are working with NSE to see if there are options.
- PLFN expressed that NPNS should take the sludge back to their site. PLFN indicated that a new storage cell should be built with the new ETF so the sludge can be stored on the NP site.
- PLFN is concerned that the closure dates could be compromised and feels that community members will not accept capping onsite.
- PLFN asked what the implications are of not being ready to remediate at January 31, 2020. Can BH stop taking effluent on that date even if remediation approach is not yet finalized? NS Lands answered that yes, that it okay, effluent not flowing can be managed until the remediation starts.

Next Steps, Concluding Remarks, and Wrap-Up

- PLFN (Assembly) has 30 days to respond to consultation initiation letter.
- NS Lands to distribute Design Requirements Document to PLFN.
- NSE and GHD to work together to determine if offsite disposal is a viable option for waste management.
- NS Lands to follow up and determine what Northern Pulp is approved for disposing/ what kind of waste Northern Pulps landfill is currently accepting.

125. The more detailed *Design Requirements Document* was provided to PLFN on the following day, April 20, 2018.

126. On May 28, 2018, PLFN wrote to the Province setting out its preliminary comments on the information provided to PLFN (EIS, Appendix J, p. 116).

127. In the letter, PLFN advised that its comments were preliminary as PLFN intended to consult with its own experts further on the matter.

128. PLFN echoed the concerns raised at the April 19, 2018 consultation meeting: “Chief and Council are strongly opposed to any contamination being left at or near Boat Harbour. They are prepared to wait on the approval of another containment facility rather than proceed with a long term containment cell at Boat Harbour.”

129. PLFN advised the Province of PLFN’s longstanding expectation that the entire area around Boat Harbour would be remediated, and the lands turned over to PLFN:

The other aspect of this is that as far back as 1997 the Province had assured Pictou Landing First Nation that once remediation was complete all lands in and around Boat Harbour would be turned over to the community. I enclose two pieces of correspondence which are readily at hand and which document some of the discussion around land at the time. Further work will be required to uncover the full dealings between Pictou Landing First Nation and the Province in respect of the transfer of these lands to Pictou Landing First Nation. Suffice to say that is the community's long held expectation (and potentially an enforceable right) to have all lands around Boat Harbour cleaned up and returned to the community once the treatment facility was closed.

130. The Province responded on August 23, 2018 (EIS, Appendix J, p. 121). The Province indicated that the letter contained its preliminary response to PLFN’s preliminary comments. The Province advised PLFN that on August 9, 2018, a presentation had been made to the Nova Scotia Executive Council and direction was given that the Project would incorporate the use of the existing Boat Harbour Landfill. The letter concludes with an affirmation that the Province will continue to listen to PLFN and looks forward to continued consultation.

131. No further formal consultation has taken place since then.

132. In the context of the duty to consult, the distinction between formal consultation and informal “engagement” is important. PLFN’s legal counsel was not involved in the informal engagement events except on rare occasions. On the other hand, PLFN’s counsel was involved in all aspects of the formal consultation process because of its legal significance. PLFN received no notice that the Province intended to rely on informal engagement as part of the formal consultation process. The Province consultation record supports this (EIS, Appendix J).

6.4 *Opportunity to Make Submissions and Present Evidence*

133. PLFN was unaware that on August 9, 2018 the Provincial Cabinet was deciding whether to include the existing Boat Harbour Landfill in the Project.

134. In its preliminary submissions, PLFN indicated that a full review of the historical record was needed to uncover the past dealings between the Province and PLFN in respect of the existing landfill and the remediation of Boat Harbour (EIS, Appendix J, p. 116).

135. The Document Brief accompanying these submissions confirms the extent of material relevant to the issue and the complexity of the matter.

136. PLFN was not given an opportunity to fully respond before the decision was made on August 9, 2018. It is unlikely that any of the historical information was provided to Cabinet.

137. The Province’s Alternative Site Assessment includes few details of the historical dealings surrounding the Boat Harbour Landfill, even though PLFN had characterized this information as important and the Province had access to the historical record.

138. PLFN had understood from the consultation meeting of April 19, 2018, that other options were still under investigation at that time and was not advised otherwise before August 9, 2018.

139. PLFN has repeatedly, both before and after August 9, 2018, voiced its objection to the use of the existing landfill. Two community referendums have overwhelmingly supported this position. After August 2018, PLFN expected to address these concerns in the ongoing consultation process, but consultation has not advanced further. PLFN is now raising these issues in this environmental approval process.

6.5 *Province had Decided before Consultation*

140. The *Design Requirements Document* and *Remedial Options Summary* based upon it were prepared before any formal consultation with PLFN took place. The implication is that the Province had already decided upon the solution and was not open to change based on PLFN’s perspective.

141. This evidences an unwillingness to consider PLFN’s position and adapt the project accordingly, a breach of the duty to consult.

6.6 *Northern Pulp’s Sludge*

142. On January 29, 2020, on the eve of the closure of the Boat Harbour treatment facility, the Province issued a ministerial order under the Nova Scotia *Environment Act* requiring, among other things, that Northern Pulp prepare a plan for decommissioning the treatment facility to include the removal of contaminated sludge from the ASB (Document Brief, Tab 266).

143. Northern Pulp was required to reduce the sludge in the ASB to 1995 levels, as provided for in a 1995 memorandum of understanding between the Province and Scott Maritimes (Document Brief, Tab 95, section 4.01(f)).

144. Northern Pulp was also to dispose of the sludge from the ASB in its own industrial landfill located near the mill (Document Brief, Tab 271, para. 29). Nova Scotia and the Province had agreed to 81,375 m³ as the volume of sludge to be removed from the ASB by Northern Pulp to achieve 1995 levels (Document Brief, Tab 271, para. 30).

145. However, on March 22, 2021, the Province and Northern Pulp agreed that the Province would take over responsibility for the removal of all contaminated sludge in the ASB, the sludge which Northern Pulp was obligated to remove (Document Brief, Tab 271, para. 30; Tab 270, p. 8).

146. PLFN was not consulted on this decision even though it meant adding even more sludge to the existing Boat Harbour Landfill despite the fact that the Northern Pulp landfill meets all of NS Environment's criteria for hazardous waste landfills and the Boat Harbour Landfill site does not (see below).

6.7 *Conclusion re Consultation*

147. The Province has not met its duty to consult with respect to the use of the existing Boat Harbour Landfill. The proposal to use the Boat Harbour Landfill in the remediation project was put forward in breach of the Province's duty to consult and ought not to be considered as a viable option.

7 Proposed Accommodation/Compensation Inadequate

7.1 Overview

148. The Province suggests that it is transferring 173 hectares of land as partial accommodation for the continuing impacts of the Boat Harbour Landfill on PLFN. However, PLFN has never agreed to the transfer of lands as accommodation for the adverse impacts of the Boat Harbour Landfill. Of those 173 hectares, 128 hectares has already been promised to PLFN as early as 1991 as consideration for PLFN not taking any legal action to interfere with the continued use of the Boat Harbour treatment facility for fixed term and, later, for a further extension. As such the Province has a pre-existing legal obligation to transfer those lands and cannot characterize those 128 hectares as an accommodation for the continued adverse impacts of the Boat Harbour Landfill.

149. Compensation for adverse impacts on reserve lands should be negotiated in accordance with the principles set out in *Southwind v. Canada*. This requires obtaining PLFN consent. Negotiated compensation would reflect both the value of the Boat Harbour Landfill to the remediation Project and PLFN's own views on the inherent value of its impacted reserve lands. Such negotiations have not taken place and the Project should not be approved until PLFN consent is obtained.

7.2 Proposed Accommodation

150. The Province states at page ii of its Alternative Site Assessment that: "As accommodation or compensation to mitigate continuing impacts or loss of use as a result of the proposed project, NS Lands will take steps to transfer 173 hectares of provincially owned lands to PLFN."

151. PLFN has never agreed to accept the transfer of any lands as partial accommodation or compensation for the continuing impacts of the Project or loss of use of IR 37 and IR 24G.

152. Moreover, the statement is misleading. In the EIS, the Province clarifies that 128 of the 173 hectares had already been committed to PLFN by Provincial Order in Council #96-621 dated August 14, 1996, and only 45 hectares are newly identified lands (EIS, p. 6-10).

153. Even this does not fully capture the history of the land promises. The 128 hectares were first promised to PLFN in 1991 to induce PLFN not to sue the Province or the mill owner over the use of Boat Harbour as a treatment facility to the end of 1995 (Document Brief, Tab 36). The same lands were later promised again in exchange for PLFN's forbearance from taking legal action against the Boat Harbour treatment facility to the end of 2005 (Document Brief, Tab 86).

154. PLFN takes the position that because it did forbear from taking any action against the Province or the mill owners, to its detriment, the Provincial commitment to transfer the land is binding and gives rise to an equitable interest in the lands on the part of PLFN. The Province cannot characterize these lands as being transferred as partial accommodation for the adverse impacts of the remediation project and the Boat Harbour Landfill on PLFN's reserve lands.

7.3 *Southwind Compensation Principles*

155. In *Southwind v. Canada*, *supra*, at para. 110, the Supreme Court of Canada held that compensation for taking an interest in reserve lands should not be based on highest and best use under expropriation law principles, but rather on the value of the land to the project and its impact on the Indigenous community. This is to be determined by negotiation between the community and the proponent aimed at securing the community's consent (*Southwind*, at para. 110).

156. In *Southwind*, the SCC pointed to other instances where Canada had correctly negotiated compensation on behalf of other Indigenous communities whose lands needed to be flooded for a hydro-electric project. In those cases, Canada had demanded compensation equal to as much as 64 times the fair market value of the land (*Southwind*, *supra*, at para. 136).

157. In the present case, no negotiation has taken place. The Province has assumed it has the right to continue to use the Boat Harbour Landfill in perpetuity without PLFN's consent. The true cost of the Boat Harbour Landfill, and thus its feasibility, will not be known until negotiations have concluded with PLFN's consent and if consent is not reached, then the Boat Harbour Landfill cannot be an option at all, as noted above.

8 Other Lands Available for Landfill

8.1 Overview

158. The Mount William Site is not the only site available to the Province for a hazardous waste landfill. There are 109 parcels of Crown land and 97 parcels of private land within a 50 km radius of Boat Harbour that may make a suitable site for a landfill based on a desktop review of location and site characteristics. Of these, 15 parcels are within 10 km of Boat Harbour. Another suitable location is the existing landfill owned by Northern Pulp on the mill site. Northern Pulp has expressed a willingness to explore this option.

8.2 Mount William Site not Only Option

159. When PLFN put forward the proposal to build a hazardous waste landfill on its own lands at Mount William, not far from Boat Harbour, it did not intend that the Mount William land was the only land that the Province should explore as an alternative to the Boat Harbour Landfill.

8.3 Crown Lands

160. PLFN asked Hive Engineering to identify parcels of Crown land near Boat Harbour that may be suitable for a hazardous waste landfill. In a report to PLFN dated August 4, 2023 (the “Hive Report”), Hive Engineering identified 109 parcels of land within 50 kilometers of Boat Harbour that were large enough and free of any streams, rivers, lakes, wetlands, old growth forests and protected areas such as parks, nature reserves, significant species and habitats, and potable water wells. Of these, 3 parcels were within 10 km of Boat Harbour (Hive Report, p. 9).

8.4 Private Lands

161. PLFN also asked Hive Engineering to identify parcels of private land within a 50 km radius of Boat Harbour which might be suitable for a landfill. Hive Engineering identified 97 parcels that meet the desktop search criteria (Hive Report, p. 10). Of these, 12 were within 10 km of Boat Harbour.

8.5 Northern Pulp Landfill

162. Northern Pulp operates a landfill near its mill at Abercrombie Point. It has in the past placed dredged material from the Boat Harbour treatment facility into its landfill. In discussions with PLFN, representatives of Northern Pulp have expressed an openness to exploring the potential use of its landfill for long-term storage of the hazardous waste from Boat Harbour.

163. Hive Engineering was also asked by PLFN to apply the environmental site criteria NS Environment developed for the Alternative Site Assessment to the Northern Pulp landfill site. As discussed in more detail below, the Hive Report concluded that the Northern Pulp site meets all the siting criteria (Hive Report, p. 16) making it the preferred location over the Boat Harbour Landfill site.

8.6 *Conclusion*

164. The Honour of the Crown requires the Province to examine other less intrusive locations for the landfill. It has not done so. It would take relatively little effort to assess the sites identified by Hive Engineering.

9 Boat Harbour Landfill worse than Mount Williams site under NS Environment Siting Criteria

9.1 Overview

165. Using the criteria for siting hazardous waste landfills developed by NS Environment as set out in the Province's Alternative Site Assessment, Hive Engineering analysed the Mount William Site, the Boat Harbour Landfill site, and the Northern Pulp landfill site (Hive Report, pp. 10-16). The result was that the Boat Harbour Landfill site exceeded more of the site criteria than the Mount William Site and, as noted above, the Northern Pulp site was the best of them all, meeting all environmental siting criteria.

9.2 Criteria

166. NS Environment had no existing criteria or parameters for approving the site of a hazardous waste landfill under the *Environment Act*. As a result, for the purpose of analyzing the Mount William Site in the Alternative Site Assessment, NS Environment selected criteria from various other jurisdictions, as summarized in the Hive Report (Hive Report, pp. 10-13).

9.3 Boat Harbour Landfill

167. Hive Engineering applied the NS Environment siting criteria to the Boat Harbour Landfill site and concluded that it exceeded 9 of the NS Environment criteria (Hive Report, at p. 15-16):

The existing waste containment cell has the following siting criteria exceedances:

- NSECC Municipal Solid Waste Guidelines
 - o Distance to groundwater from the lowest point of the leak detection system and bottom liner
 - o Distance to permanent surface water/wetland from the Cell
 - o Distance to Other Properties from the Cell
- National Guidelines for Hazardous Waste Landfills
 - o Prevention of Surface Water Contamination
 - o Prevention of Contamination in Parks and Wildlife Areas (Including Places of Special Significance)
 - o Prevention of Accidental Release of Contaminants (Groundwater Isolation)
- British Columbia Environmental Act Hazardous Waste Regulations
 - o With a minimum separation depth of 3 m of unsaturated soil material with a permeability less than 1×10^{-6} cm/s above a seasonally high water table including the zone of capillary rise
 - o A person must not locate a secure landfill within 300 m of any nonintermittent watercourse or any other permanent waterbody.
 - o Distance to Potable Water Supply (> 100 L/minute).

168. Hive Engineering also looked at other criteria from the same jurisdictions that NS Environment had borrowed the siting criteria for the Alternative Site Assessment, to identify criteria that NS Environment had not adopted (Hive Report at pp. 22-23). Hive applied those criteria to the Boat Harbour Landfill site.

169. Hive concluded that the Boat Harbour Landfill site fails some of the additional criteria from the other jurisdictions that NS Environment omitted, including susceptibility to the impact of a tsunami, given its location next to Boat Harbour, and also its location within a PLFN protected wildlife area. Hive also identified a concern that with a higher elevation on the same footprint, the slope failure requirements under the British Columbia *Environmental Act Hazardous Waste Regulations* would not be met (Hive Report, p. 23).

9.4 *Mount William Site*

170. Hive Engineering applied the same NS Environment criteria to the Mount William Site and concluded that the Mount William site had only 4 exceedances, far less than the Boat Harbour Landfill site (Hive Report, pp. 16 and 17):

The Mount William Site exceeded for the following:

- NSECC Municipal Solid Waste Guidelines
 - o Distance to permanent surface water/wetland from the Cell
 - o Distance to Buildings from the Cell
- National Guidelines for Hazardous Waste Landfills
 - o Prevention of Contamination in Populated or Public Areas
- British Columbia Environmental Act Hazardous Waste Regulations
 - o A person must not locate a secure landfill within 300 m of any nonintermittent watercourse or any other permanent waterbody.

9.5 *Northern Pulp Landfill Site*

171. Hive Engineering applied the NS Environment criteria to the Northern Pulp landfill site and concluded that the Northern Pulp site had no exceedances – it met all criteria (Hive Report, p. 16):

9.6 *Conclusion*

172. The Province's Alternative Site Assessment fails to apply the NS Environment siting criteria to the Boat Harbour Landfill site or to other known potential sites. Had it done so, the report would have acknowledged that Mount William Site is a superior site when compared to the Boat Harbour Landfill site, and that the Northern Pulp landfill site is ideal in that it meets all NS Environment hazardous waste landfill siting criteria.

10 Shortcomings of the Mount William Site Could be Overcome With Mitigation Measures

10.1 Overview

173. Exceedances of environmental site criteria for any given project are routinely overcome with mitigation measures. Some are standard in the industry. The exceedances noted by the Province in its analysis of the Mount William Site could be overcome by the mitigation measures identified in the Hive Report. The Province has not analyzed these measures and accordingly its analysis is incomplete.

10.2 Mitigation Measures Available

174. Hive Engineering confirms that on most projects siting exceedances can be overcome (Hive Report, p. 18):

With the right combination of mitigation, engineering and compensation, there are few siting issues that could not be surmounted.

175. Hive Engineering lists the various mitigation measures available to this project (Hive Report, pp. 18-21, Table 5-1). These measures apply to all sites analysed by Hive Engineering. As Hive Engineering states, mitigation costs may be a factor, however, in the present case, the Province has not looked at the costs of any such mitigation measures in its analysis of the Mount William Site.

10.3 Conclusion

176. The issues with the Mount William Site can be overcome with mitigation measures. The Province has not addressed these mitigation measures with respect to the Mount William Site. The alternative site analysis is incomplete.

11 Conclusion

177. The Alternative Site Assessment demonstrates that the Province's analysis of alternatives to the Boat Harbour Landfill is flawed. When comparing the feasibility of the Mount William Site to the Boat Harbour Landfill site, the Province fails to take into account the fact that PLFN has a strong claim for Aboriginal title to the land upon which the Boat Harbour Landfill is located and fails to acknowledge the impact of that claim on future use of the land.

178. Further, while the Province acknowledges that the existing landfill adversely impacts IR 37 and IR 24G and an expanded landfill at the same location would continue to do so, the Province does not provide an analysis of justification for the infringement under the *Sparrow* test. PLFN's analysis, as set out above, shows that the current and future use of the Boat Harbour Landfill is, and would continue to be, an unjustified infringement of its rights. PLFN takes the position that the Province must remove the Boat Harbour Landfill and it cannot be expanded for long-term storage of contaminants from Boat Harbour.

179. PLFN has never been compensated for past adverse impacts of the Boat Harbour Landfill and the Province's proposal to transfer 45 hectares of land as an accommodation measure to compensate PLFN for future adverse impacts of the expanded landfill, have not been agreed to by PLFN and would not, in any event, amount to full compensation.

180. The true measure of compensation is the amount that PLFN would agree to accept in exchange for its consent to the continued use of the Boat Harbour Landfill and its expansion to accommodate sludge from the Boat Harbour remediation project. No negotiation to that end has taken place. PLFN does not consent.

181. The decision to store hazardous waste dredged from Boat Harbour as part of the Project was arrived at in breach of the 2014 Agreement in Principle. This accommodation agreement gave rise to Section 35 protected rights and required the Province to negotiate a remediation agreement with PLFN in good faith. The Province has not even attempted to negotiate a remediation agreement. Such an agreement would, of necessity, address the fate of Boat Harbour Landfill.

182. Consultation on the Project has been inadequate. The Province has chosen ad hoc engagement over formal consultation. There has been only one consultation meeting. At that meeting, PLFN was advised that the Province was still considering other options besides the Boat Harbour Landfill, and that PLFN would have time to present further information before the Province decided. However, the Province decided on August 9, 2018, without notice to PLFN and without the full historical record, to base the Project on the use of the Boat Harbour Landfill to hold hazardous waste from Boat Harbour indefinitely. It appears that the Province had made up its mind on this point before consultation began.

183. Based on the NS Environment siting criteria, of the alternatives considered, the Boat Harbour Landfill is the least suitable site for a hazardous waste landfill. Other options exist, including PLFN's proposed site at Mount William, which could meet the NS Environment criteria with appropriate mitigation measures, which the Province has not assessed. Other Crown and private land that appears suitable for a hazardous waste landfill based on a desktop review is available within 10 km of Boat Harbour. These lands have not been investigated by the Province.

The landfill at Northern Pulp's mill site is the best suited parcel of all the alternatives studied, since it meets all the NS Environment siting criteria for a hazardous waste facility. The Province has not considered this option.

184. For the forgoing reasons, PLFN does not accept the Province's position that the Boat Harbour Landfill is the only (or best) option for the long-term storage of hazardous waste from Boat Harbour and PLFN continues to oppose the use of the Boat Harbour Landfill for that purpose.

Dated August 24, 2023

<Original signed by>

Chief Andrea Paul

Annex 2

Addressing PLFN Comments Detailed in Annex 1 on the IR82 Feasibility Analysis

The Province of Nova Scotia intends to address the Annex 1 feedback with the address of three matters:

- 2.1 Engagement, Consultation, Sharing of Plans primarily in 2015 to 2018; PLFN general support through 2019 and 2020; with adamant opposition emerging in 2021
- 2.2 Legal Matters
- 2.3 Technical Issues (including those presented by PLFN Counsel and PLFN's Environmental Consultant, Hive Engineering)

2.1 Engagement, Consultation and Sharing of Plans; PLFN Support

It is helpful for an understanding of Nova Scotia's position to explain the environmental context of Nova Scotia's engagement and consultation with PLFN which was carried out in conjunction with the development of Project plans, including the assessment of alternatives for various elements of the Project. This is informed by a chronology of key events, which follows.

The purpose of the chronology is to demonstrate the extensive engagement and consultation with PLFN over the period from 2015 to 2018, including efforts to inform the PLFN community on the containment cell alternative. During 2019 and 2020, PLFN's actions and public statements implicitly supported the Project plans and implementation notwithstanding their opposition to the containment cell.

[PLFN para 8, 14, 23, 107, 141, 147, 180]

Aside from the paragraphs noted above, the PLFN response laid out in Annex 1 makes various references relative to consultation on the Project, including assertions that only one consultation meeting was held (para 23, 122, 131); there was inadequacy of consultation on the Boat Harbour Landfill – the existing containment cell (para 107); and that there was limited consultation (para 122).

The consultation and engagement with PLFN on matters relating to the Project is laid out extensively in Sections 5 and 6 of the Environmental Impact Statement. In fact, the engagement and informal consultation with the PLFN began in 2014, subsequent to the June 2014 execution of the Agreement in Principle whose primary objective was to establish a date for the cessation of mill effluent into the Boat Harbour Effluent Treatment Facility. That date was established by the enactment of legislation of the Boat Harbour Act in 2015, which established January 30, 2020 as the date for cessation of effluent. That date was honored by the Crown. Cessation of effluent was a prerequisite to enabling remediation.

Throughout the period 2015 to 2018, there was significant, deep engagement and informal consultation between the Province, the Proponent and PLFN. Commencing in April 2018, the Province and Proponent entered into formal consultation with PLFN. In 2019 CEAA/IAAC assumed the lead in Crown consultation on the Project and the Province and Proponent continued participation.

The detail is laid out in the Environmental Impact Statement as follows:

- Section 5.1 - Informal Consultation and Community Engagement Prior to the Initiation of the Federal Environmental Impact Assessment Process
- Section 5.2 - Formal Consultation Prior to CEA Agency/IAAC Notice of Determination of Requirement for Federal Environmental Impact Assessment
- Section 5.3 - Engagement with the Mi'kmaq of Nova Scotia and Concerns Raised During the Federal Environmental Impact Assessment

It is the perspective of the Province and the Proponent, based upon this evidence, that the duty to consult has been honored throughout.

[PLFN para 8, 14, 23, 104, 107, 119, 120, 122, 131, 132, 139, 141, 147, 180]

It should be noted that there are a number of paragraphs with statements that are not relevant to the environmental assessment process or are simply fact.

(e.g. para 138, 140)

Sharing Information on Project Plans and Alternatives

Over the period mid-2015 to December 2018, significant effort was made to inform PLFN on the development design planning and alternatives evaluation with an increased emphasis on the containment cell alternative, as there was an understanding that PLFN was not in agreement with that remedial options decision. Emphasis was put on the containment cell element, as well as on the identification of mitigative measures and accommodations associated with the containment cell impacts on the exercise and enjoyment of aboriginal and treaty rights on that specific parcel of land. Significant effort was also put into providing information and educational materials and community sessions on the containment cell element. This information is laid out in detail in Section 5 of the EIS.

1. May 2015

The Boat Harbour Act was given Royal Assent on May 11, 2015, stipulating that the Boat Harbour Effluent Treatment Facility cease receiving Mill effluent as of January 31, 2020.

2. Mid 2015

The Boat Harbour Cleanup Committee (BHCC) was formed, with Nova Scotia and PLFN participation, to meet monthly to discuss remediation plans and receive PLFN feedback. Under the auspices of a Terms of Reference for the BHCC as detailed in Annex 3, the committee met monthly up until the interruption in the ability to meet which developed with the onset of COVID 19 in March 2020.

3. July 2015

A Visioning Study was completed by the PLFN community which led to a “return to tidal” outcome, which established the remediation objective and required the removal and consolidation of the contaminated material from the Boat Harbour site.

4. October 2015

Build Nova Scotia, formerly Nova Scotia Lands (the Proponent) arranged a visit for PLFN Chief and Council with Dan Christmas of Membertou First Nation to discuss their experience with the Sydney Tar Ponds and Coke Ovens Remediation and to provide PLFN Chief and Council with a tour of the Open Hearth Park, which is a containment cell within the urban Sydney environment, approximately two km from Membertou.

5. May 2017

An overview of the Project planning and design process was shared with PLFN at the BHCC.

6. September 2017

A meeting was held with PLFN fishers to discuss accommodation of PLFN’s input to bridge design, as well as development of a wharf and marina within Boat Harbour.

7. November 2017

An update on the planning and design process was shared with PLFN at BHCC.

8. December 2017

An analysis of Onsite and Offsite Sludge Storage Alternatives was presented to PLFN at a community meeting.

9. April 2018

Formal consultation under the terms of the Tri-partite Agreement commenced. The Remedial Options Design Document was presented to PLFN, which outlined the existing containment cell as the preferred option for waste storage.

10. May 30, 2018

The Province received PLFN correspondence with comments on Remedial Options Design Document, including opposition to use of existing containment cell proposed.

11. June 2018

The Containment Cell Design Overview and Alternative Comparative Options Analysis was shared with BHCC.

12. August 9, 2018

There was a presentation of Proposed Project plans to Nova Scotia Executive Council, which led to Executive Council direction to proceed with an Environmental Assessment.

13. August 23, 2018

The Province's response was provided to PLFN correspondence of May 30, 2018.

14. September 2018

Six information sessions on waste management plans and existing containment cell were held with the PLFN community, upon request of PLFN Chief.

General Project Support Subsequent to Development of Alternatives and the Selection of the Existing Containment Cell as the Preferred Alternative for Long Term Storage of Waste

15. February 6, 2019

In 2018, PLFN expressed a desire for a long-term vision for the remediated site and sought the development of a land use plan. Nova Scotia agreed to fund the third party firm, Membertou Geomatics, to engage the PLFN community and develop a land use plan. This plan was delivered on February 6, 2019, and provides a comprehensive future vision of the remediated site. (reference Annex 3)

16. February 18, 2019

In 2018, PLFN expressed a need to understand what economic opportunities could be derived from implementation of the remediation Project. Indigenous Services Canada funded a consultant study for Group ATN Consultants to carry out the analysis for PLFN as the client. On February 22, 2019, the report *Boat Harbour Remediation Project, An Analysis of Indigenous Economic Opportunities* was finalized. (Reference Annex 3)

17. February 22, 2019

The Boat Harbour Cleanup Committee convened a meeting, with minutes extensively documenting the path forward to the planning and implementation of remediation, including PLFN's participation in Project implementation. (Reference Annex 3)

18. February 22, 2019

CEAA announced the decision to conduct a federal environmental assessment which subsequently commenced on April 20, 2019.

19. March 12, 2019

The Remedial Action Plan, which laid out the specific engineering methods for the remediation efforts, was presented to PLFN.

20. May 23, 2019

CBC - *"I remember saying, 'I know this isn't going to be done in my lifetime, but I hope it's going to be done in my grandchildren's lifetime,' and look where we are," said Paul, flanked by children, elders and other members of the community. "Having Boat Harbour restored to its natural state is all we've ever wanted."*

21. May 24, 2019

Chronicle Herald - *The federal government announced Thursday it will contribute \$100 million to the remediation of the tidal estuary. "If I could sum it up in one word, it would be reconciliation," said Chief Andrea Paul. "It validates the work that we have been doing as a community, and I think it really just puts that reassurance that both levels of government have listened and taken our concerns seriously."*

21. September 24, 2019

IAAC provided notice to PLFN of IAAC's consultation workplan with respect to environmental assessment.

22. December 21, 2019

Chronicle Herald - *Pictou Landing celebrates commitment (of Premier McNeil to honour Boat Harbour Act date of January 30, 2020). At around 10:40 Friday morning, a cheer went up inside the Pictou Landing First Nation band office, followed by tears. An emotional chief and council spoke to media shortly after, expressing gratitude to the Nova Scotia government, her council, elders and community. "I know this wasn't easy. I know that this was very challenging and I prayed and I prayed and I prayed for everyone. I appreciate the decision that was made today because I know that it was taken with extreme, extreme consideration for all parties."*

23. February 21, 2020

A meeting was held with the Proponent, IAAC and PLFN Chief, Council and Legal Counsel for review of the Draft EIS with PLFN, including an overview of how information from the MEKS and Well-being study were incorporated into the EIS (list included 12 things – bridge bypass, pipeline removal, enhanced containment cell design, culturally sensitive destruction of fish, return to tidal, job creation, land use and transfers, technical training, etc. There was satisfaction expressed by PLFN meeting participants that the remediation was going to happen.

24. March 10, 2020

Chief Andrea's Facebook page - *Nova Scotia Lands and GHD (with input from the Remediation Project team) will be creating an education video of the containment cell and options that were presented in the information sessions. This is another avenue to share the information to the community. Once this is completed it will be shared on our sites.*

25. April 28, 2020

CBC - *"You know, I'm just really happy for the whole community and especially for the young people that this won't be a part of their legacy anymore. They'll have a new legacy and they'll have A'se'k back." – Chief Andrea Paul*

26. June 10, 2020

Chief Andrea's Facebook page - *PLFN please have a look at this video regarding the remediation options for the Project. We understood from the well-being study that there was not enough understanding of the containment cell and it was requested to create a video option.*

27. December 10, 2020

An Industry Briefing was held to update potential bidders on the Project. The PLFN Chief and Community Liaison Coordinator presented information on the PLFN community assets as a Project partner with the Proponent.

28. December 10, 2020

CBC - *"The long-term storage of impacted sediment and material in the existing containment cell may not completely undo this loss, but a clean Boat Harbour will be a positive improvement," the band said. "The use of the containment cell for the storage of waste dredged from Boat Harbour has been happening since the mid-1990s. The containment cell will be upgraded and improved before its ongoing use during the project. It will be capped and closed at the end of the project."*

29. March 30, 2021

There was a meeting with Nova Scotia officials and PLFN regarding their interest in being an exclusive or non-exclusive bidder.

30. March 2021

There were various discussions with PLFN and others regarding PLFN's emerging adamant opposition to the existing containment cell element of the Project.

31. October 8, 2021

IAAC issued IR 82.

2.2 Legal Issues from PLFN Feedback

Purpose

In responding to PLFN's feedback in response to IR82, it is important to revisit the purpose of the Boat Harbour Remediation Project. The purpose, as described in the Environment Impact Statement, Part II, page 3 is:

The purpose of the Boat Harbour Remediation Project (the Project) is to remediate Boat Harbour, and lands associated with the Boat Harbour Effluent Treatment Facility (BHETF), following environmental approvals. The goal of the Project is to return Boat Harbour to a tidal estuary, which necessitates the remediation of contaminated sediments within Boat Harbour. Through the proposed Project, it is Pictou Landing First Nation's (PLFN) desire and vision that Boat Harbour, (known to PLFN as A'se'k) be remediated and eventually be naturally restored to allow the community to re-establish its relationship with the water and land of A'se'k. In this regard, the Project's effects on health, socio-economic conditions, and physical

and cultural heritage, as a result of changes caused through remediation activities are net positive in relation to PLFN.

The Project is intended to remediate the Boat Harbour Effluent Treatment Facility (BHETF). The components of the BHETF include: the standpipe that extends from the Kraft Pulp Mill (Mill) property eastward, underneath the East River, through existing and historic BHETF lands, Boat Harbour and its banks, extending to Northumberland Strait.

The existing containment cell, approved by Nova Scotia Environment and Climate Change (NSECC), is not part of the BHETF. See Figure 2.1-1 on page 2-3 of Part II of the Environment Impact Statement.

Purpose of EA and Types of Decisions That Can be Rendered

This Project has been grandfathered under the *Canadian Environmental Assessment Act, 2012, SC 2012, c19, s.52* (the “Act”). The purpose of the Act is to protect the components of the environment that are within the legislative authority of Parliament from significant adverse environmental effects caused by a designated project. The purpose is also to promote cooperation and coordinated action between federal and provincial governments respecting environmental assessments and to also ensure environmental assessments are conducted in a timely manner. (See Section 2)

The decision-maker may approve the project, reject the project or approve the project with conditions. (See Sections 52(4)(a) and (b) and 53). If the decision-maker approves with conditions, the decision-maker must establish the conditions, in relation to the environmental effects, with specific reference to the subsection of the Act with which the Proponent of the designated project must comply. The conditions must also outline the implementation of mitigation measures that were considered in rendering its decision. As part of the Environmental Assessment (EA) process and in response to Pictou Landing First Nations’ (PLFN) objections to the use of the existing approved containment cell for the storage and treatment of waste removed from the BHETF through the course of the Project, the Federal Government issued Information Requirement number 82, requiring the Proponent (NSLands, now Build Nova Scotia (“BuildNS”) to provide an analysis of the technical and economic feasibility of the alternative containment cell location proposed by PLFN on lands owned by PLFN located at Mount William, Pictou County (Mount William Lands Option evaluation). The Proponent was to consider factors such as environmental impacts, costs, regulatory requirements, timing, risk, public concerns and impacts to PLFN. The Proponent was to provide sufficient information to support any assumptions and conclusions. The Proponent was also required to provide PLFN with the opportunity to comment on the analysis and for the Proponent to clearly demonstrate how PLFN’s comments were addressed.

The Proponent submitted its analysis in response to IR82 to PLFN on August 17, 2022. PLFN provided their detailed response on August 24, 2023. This document is intended to address the last requirement associated with IR82, that is for the Proponent, to clearly demonstrate how PLFN’s comments have been addressed.

The Province believes that the Project, for the most part, has the support of PLFN, which is that PLFN wants Boat Harbour cleaned up and returned to its historical state as a tidal estuary. The only remaining issue is with the use of the existing approved containment cell as the final disposal site for the contaminants as part of the Project. The existing containment cell has received and contained Boat Harbour sludge since the mid-1990s. BuildNS has tested the site continuously in accordance with a NSECC Ministerial Order and has confirmed it is working well, as planned. To address some of the concerns raised by PLFN, BuildNS has plans to make it safer by improving the cell liners and leachate collection system. If the Project is approved, the plan is that at the end of the cleanup, leachate will be directed to a buried tank, which will be regularly pumped out and disposed of at an off-site wastewater treatment plant. The top of the existing containment cell will be capped, and long-term monitoring will continue after the cleanup to ensure the cell is working as planned. The Project and the plan for the existing containment cell was outlined in detail in the Mi'kmaq version of the Summary of the Boat Harbour Remediation Project.

[See Mi'kmaq version Boat Harbour Remediation Project Overview in Annex 3]

Alternatives to the vertical, but not horizontal, expansion of the existing approved containment cell were considered but were not pursued given the significant risks posed to the environment and health and safety of the public. Construction of a new, off-site containment cell would require extensive public engagement, Section 35 consultation and regulatory processes, would take an estimated five to eight years, with no guarantee of approval. Even if another site could be located to house the containment cell, it would, in most cases, require transporting contaminated materials in trucks along public highways posing significant risk to the environment, health and safety of PLFN and all Nova Scotians. The remedial options process considered offsite options. While a specific technically and economically feasible alternative is not available presently, if one does emerge, it could be considered as another project. However, the proposed project would have to be implemented first before the waste can possibly be transported to another location or facility. The current Project, which has been submitted for approval, proposes a vertical, but not horizontal, expansion of the existing approved containment cell that has been used successfully since the 1990s to treat the types of contaminants in question. The existing containment cell is located on provincially owned lands and is the only approved site to hold these contaminants in Nova Scotia.

[PLFN, paras 1-4]

While formal consultation began in 2018 with the filing of the Project for an environmental assessment, the Proponent was in deep engagement with the community from 2015-2018 (weekly/monthly meetings with a designated committee composed of Chief, Councilors, Elders, etc.; open house community sessions; clean-up committee of scientists, community members, etc.) which all directly shaped the Project. The Impact Assessment Agency of Canada (IACC) has led the consultations with PLFN since commencement of the federal environmental assessment process, which began in 2019 under the Act. The Federal consultation process involved IACC holding meetings with PLFN directly, without the Province's involvement, as well as other joint meetings where both PLFN and the Province participated in the meetings. IACC issued IR82 in response to PLFN's ongoing concerns with the use of the existing

approved containment cell for the long-term storage of the contaminants flowing from the cleanup of the BHETF. Through IR82, IACC required the Province to provide further consideration of technical and economic feasibility of the alternative containment cell location proposed by PLFN at the Mount William Site. The analysis was to consider factors such as environmental impacts, cost, regulatory requirements, timing, risk, public concerns, and impacts to PLFN.

The Proponent carried out this additional study as requested, even though it had previously considered the option of an offsite containment cell as part of its original assessment and as outlined in the Environmental Impact Statement.

The additional request to consider an offsite containment cell on the Mount William Lands as proposed by PLFN identified the same risks as were previously considered by the Proponent, i.e., any currently identifiable off-site option requires a significant volume of truck traffic to move the remediated materials (estimated to be a minimum of 63,000 truck loads) on public highways, creating significant risk to the environment and public health and safety.

The Mount William Lands option outlined in IR82 would not only create significant risk to the environment and public health through the trucking of the waste, but was shown to create an estimated 183,164 tonnes of green house gas emissions. The use of the existing containment cell resulted in a net decrease in emissions of 315,020 tonnes over 25 years. The proposed site outlined in IR82 does not meet any of the “requirements of the NS Municipal Solid Waste Landfill Guidelines, which would be a minimum requirement, nor does it meet the British Columbia Hazardous Waste Regulation requirements assessed in this document. In reviewing the combination of all siting requirements, as well as the entirety of the site(s), NSECC has determined the proposed location to be ‘unsuitable for the construction of a hazardous waste disposal facility.’”

[Annex 2 to The report titled “*Boat Harbour Remediation Project Response to IAAC Information Requirement Number 82 Technical and Economic Feasibility Assessment Alternative Containment Cell Location Site – dated July 2022*”]

The existing containment cell was approved under *Nova Scotia Environment and Climate Change Industrial Waste Permit Approval #94-032*. It is located on provincially owned lands and occupies a total area of less than 10 hectares. The Project calls for the vertical expansion of the existing containment cell, so even after Project completion, it will still take up less than 10 hectares of land.

In its comments, PLFN now raises the suggestion there are 109 parcels of land within Nova Scotia which may be suitable for an offsite containment cell. The Province had already considered the option of an offsite containment cell when it originally assessed the acceptable options for proceeding with the Project. For a variety of reasons as noted in the Environmental Impact Statement, the Province’s initial response to IR82 and as contained above, the option of trucking the remediated materials to an offsite containment cell is not environmentally or technically feasible. Any further requirement to assess alternative sites would be unreasonable, procedurally unfair and an abuse of this environmental assessment process.

Notwithstanding that position, if a site arises in the future which would be environmentally, technically and economically feasible, then a new project could be examined and assessed at that point in time.

Alternatives had been considered and ruled out as being environmentally and technically not feasible. Nevertheless, IACC required a further assessment of a particular property identified by PLFN. The Province carried out the additional assessment and the results were the same as its original assessment for an offsite containment cell. PLFN's response to this finding is to reiterate its objection to the use of the existing containment cell and, for the first time, assert Aboriginal title to the provincial lands upon which the existing containment cell is located. Prior to providing their comments in relation to the Province's response to IR82, PLFN had only ever asserted Aboriginal title to the Boat Harbour Effluent Treatment Facility (BHETF). The existing containment cell is not part of the BHETF.

The Province understands PFLN maintains the view that it possesses a strong asserted Aboriginal title claim to the lands associated with the BHETF, and, as such, is owed a fiduciary duty to preserve its interest in the area pending the resolution of its claim. The Province further understands that PLFN views this fiduciary duty as including the need to secure PLFN's consent before the existing containment cell can be increased in (vertical) size, and, absent this consent, the Province will be forced to remove the contaminants from the site if PLFN is able to show that it possesses established Aboriginal title to the existing containment cell because PLFN never consented to the existing site, recognizing that it could never have provided this consent even if it wanted to due to the nature of Aboriginal title.

The Province is currently participating as a Proponent in the Government of Canada's consultation with the PLFN on the Project via this federal environmental assessment, and is assuming PLFN is of the view that they are owed this fiduciary duty in relation to the existing containment cell as separate from and in addition to/above and beyond the duty to consult as it relates to the Project, including the vertical (but not horizontal) expansion of the existing approved containment cell.

While the Province understands PLFN's preference is that the Project not utilize the existing approved containment cell at all (i.e. that the remediation extend to and include the existing containment cell), the findings of the Mount William Lands Option evaluation confirm the Project, as currently structured, is the safest and most feasible of options for storing the additional hazardous materials that will result from the remediation of Boat Harbour and the lands associated with the BHETF. The Province is of the view that the Project advances reconciliation by balancing the rights and interests of PLFN with the rights and interests of all Nova Scotians in accordance with the Honour of the Crown.

[PLFN, para 5,11, 12, 13 and 14, 27-30, 31-47, 157-177 and 183]

In response to PLFN's allegation, the Province acknowledged the existing containment cell limits the use of IR37 and IR24G, the Province wishes to note the comments referenced were in the Alternative Site Assessment of the Environmental Impact Statement document, where the Province noted, the "existing containment cell is situated between IR37 and IR24G" and "does result in some limitation on land use in the areas around the existing containment cell and future modern containment cell"; however, the Province also noted that "such limitations on land use will not be further impacted by the" Project because

the vertical (but not horizontal) expansion of the existing Boat Harbour Landfill means that the “long-term existence of the containment cell will not result in increased limitations of land use from a footprint or access perspective beyond the limitations which have existed since the mid-1990s”. Accordingly, the Province is participating as a Proponent in the Government of Canada’s consultation with the PLFN on the proposed Project, which aims to remediate Boat Harbour and the lands associated with the BHETF by, among other things, vertically (but not horizontally) expanding the existing containment cell, via this ongoing environmental assessment, and, in this context, complete the Mount William Lands Option evaluation in response to IR82. As such, the Province is of the view that any potential unjustifiable infringement of PLFN’s section 35 rights, including in relation to IR37 and IR24G, prior to the Project are matters beyond the scope of these consultations and environmental assessment because consultation is a forward looking constitutional duty and the subject of this consultation process via the environmental assessment is to look at potential adverse effects on the PLFN’s asserted or established Aboriginal or Treaty rights stemming from the Project.

[PLFN, paras 6, 178, Province’s Response to IR82 filed July 2022 at p. 15/42]

As part of its comments in response to IR82, PLFN alleges the consultation process associated with the Project has not been adequate. It alleges the Province further breached its duty to consult in entering an agreement with Northern Pulp in relation to the clean up of the Aerated Stabilization Basins (ASB) and in including the contaminants from the ASB in the existing containment cell. While legal responsibility for the cleanup of the ASB between the Province and Northern Pulp may be at issue, what is not at issue is the fact the ASB formed part of the overall Project which is the subject of this environmental assessment, as the ASB forms part of the larger BHETF.

While the Province commenced formal consultation on the Project with the PLFN on April 18, 2018, the Proponent was in deep engagement with the community from 2015-2018 (weekly/monthly meetings with a designated committee composed of Chief, Councilors, Elders, etc.; open house community sessions; clean-up committee of scientists, community members, etc.) which all directly shaped the Project. Since inception, the Project has included the vertical (but not horizontal) expansion of the existing containment cell as part of the overall remediation of Boat Harbour and the lands associated with the BHETF pursuant to and in accordance with the *Boat Harbour Act*. On February 22, 2019, the Government of Canada decided that the Project required a federal environmental assessment under the 2012 *Canadian Environmental Assessment Act*, which resulted in this environmental assessment that will require the Minister and/or Governor in Council to approve or reject the Project under section 52 of this federal statute, recognizing that the Project, if approved, may also require federal authorizations by other Government of Canada departments as governed by applicable federal legislation (e.g. the Department of Fisheries and Oceans pursuant to the *Fisheries Act*). Accordingly, the consultation commenced by the Province in April 2018 ceased in 2019, when the Government of Canada commenced consultation on the above section 52 decision via this environmental assessment and communicated its intent to consult via this process to the PLFN on September 24, 2019. In addition, the Province communicated to the PLFN

that it would continue to fulfill its duty to consult during this federal environmental assessment process on October 16, 2019, recognizing that in this context the Province became a Proponent before IAAC took over the lead in Crown consultation (operating under the provisions of the 2012 *Canadian Environmental Assessment Act*).

[September 24, 2019 correspondence from IAAC to Chief Paul
Email Ken Swain to Chief Paul dated October 17, 2019 with attached correspondence
Ken Swain to Chief Paul dated October 16, 2019, refer to Annex 3]

As the Proponent, the Province participated in the Federal consultation process by participating in joint meetings with IACC and PLFN. According to the Province's records, there were a total of approximately 32 meetings on the Project over the course of the environmental assessment between March 2019 and March 2022, approximately 23 of which were tripartite (i.e. IAAC, Province and PLFN) meetings. As a result of these meetings and other meetings IAAC had with PLFN without the Proponent's participation, IAAC issued IR82 on October 8, 2021. IR82 required the analysis of the technical, economic and environmental feasibility of the Province transporting hazardous materials to the Mount William Site as an alternative to the vertical (but not horizontal) expansion of the existing approved Boat Harbour containment cell. The findings of this analysis are set out in the Mount William Land Option evaluation, and as noted above, concluded the Mount William Land Option (1) is not a technically feasible alternative site for the storage and containment of the additional hazardous materials removed through the remediation Project and (2) attracts increased risk to public health and safety and (3) creates adverse environmental impacts vis-à-vis the existing site due to the necessary transportation of hazardous materials to the alternative site.

These consultations also provide for some accommodation of PLFN's concerns about the potential adverse effects of the Project on the asserted or established Aboriginal and/or Treaty rights of their members via the Province's structuring of the Project. First and foremost, the Project itself is inherently an accommodation measure by nature because it aims to remediate Boat Harbour and the lands associated with the BHETF by, among other things, vertically (but not horizontally) expanding the existing approved containment cell. Accordingly, this remediation will enable the members of the PLFN to exercise their asserted or established Aboriginal and/or Treaty rights (i.e. fishing and gathering) in a broader geographic portion of PLFN's traditional territory, which is the estuary referred to as A'se'k (also known as Boat Harbour and the surrounding area), than they currently are able to do due to the presence of hazardous materials in the existing BHETF environment.

At the same time, while the Province understands that PLFN's preference is that the Project not utilize the existing approved containment cell at all (i.e. that the remediation extend to and include the existing approved containment cell), the findings of the Mount William Lands Option evaluation confirm that the Project as currently structured is the safest and most feasible option for storing the additional hazardous materials that will result from this remediation of Boat Harbour and the lands associated with the BHETF. As such, while the Province is, again, of the view that these underlying adverse effects as stemming from prior to the Project are matters beyond the scope of these consultations/environmental assessment, the Project nonetheless will ultimately lessen the existing geographic extent of current underlying adverse effects on PLFN Section 35 rights by limiting them to the footprint of the existing approved containment

cell, which will be vertically, but not horizontally, expanded as part of the broader remediation of Boat Harbour and the lands associated with the BHETF, recognizing again that this remediation will enable the members of the PLFN to exercise their asserted or established Aboriginal and/or Treaty rights in a broader geographic portion of the PLFN's traditional territory (A'se'k) than they currently are able to do.

Furthermore, the Province is accommodating potential adverse effects on PLFN's asserted or established Aboriginal and Treaty rights as stemming from, among other things, the vertical, but not horizontal, expansion of the existing approved containment cell component of the Project via the transfer of up to 173 hectares of land, located adjacent to Boat Harbour and the Northumberland Strait estuary leading to Boat Harbour, to PLFN. The transfer of these is intended to address, in part, the PLFN's asserted Aboriginal title claim in its traditional territory, A'se'k, recognizing that PLFN may wish to add these lands to its existing reserves or use it for commercial, institutional, recreational, agricultural and/or residential development in accordance with PLFN's land use plan for the Boat Harbour area/A'se'k.

In the event that the Government of Canada approves the Project, the Province will continue to consult PLFN on any future provincial authorizations, consistent with the common law and Provincial policies that inform our duty to consult and accommodate and any terms and conditions stemming from this environmental assessment.

[PLFN, para 8, 24, 31-47, 180]

PLFN takes issue with the Province's proposal to transfer up to 173 hectares of land following the cleanup of Boat Harbour as a partial accommodation for the continued use of the existing approved containment cell. On August 14, 1996, via Order in Council #96-621, the Province committed to transfer up to 128 hectares of land located adjacent to Boat Harbour and the estuary leading to Boat Harbour to PLFN once the Province cleaned up the lands associated with the BHETF. That cleanup is the basis of this remediation Project, recognizing that the Province has no intention of exposing PLFN to environmental/remediation liability by transferring contaminated lands to PLFN. This relationship between the transfer of the 128 hectare parcel and additional parcels totaling 45 hectares of land and the remediation of the Boat Harbour area/A'se'k via the Project is reflected in Sections 6.3.2-6.3.3 of the Environmental Impact Statement (Volume III of V) for the Project. Accordingly, the Province respectfully submits that the transfer of up to 173 hectares of land is a form of accommodation (in addition to the accommodation measures discussed above), in relation to the potential adverse effects stemming from the Project.

PLFN further states that even if the transfer of the 173 hectares of land were a form of accommodation for the adverse effects associated with the continued existence of the containment cell, the transfer of those lands is not sufficient, and compensation along the lines of that outlined in *Southwind v. Canada*, 2021 SCC 28 would be appropriate. The Province (and the Government of Canada) is consulting the PLFN on the proposed Project, which aims to remediate Boat Harbour and the lands associated with the BHETF by, among other things, vertically (but not horizontally) expanding the existing approved containment cell, via this ongoing environmental assessment. At the same time, the Province is assuming that the PLFN is of the view that they are owed a fiduciary duty in relation to the existing approved containment cell as separate from and in addition to/above and beyond the duty to consult as it relates to the Project.

Accordingly, the Province maintains the view that any potential unjustifiable infringement of PLFN's Section 35 rights, including in relation to equitable compensation as potentially applicable to PFLN's reserve lands adjacent to the existing approved containment cell, prior to the Project, are matters beyond the scope of these consultations/environmental assessment.

[PLFN, para 9, 10, 31-47, 148-156 and 179]

PLFN's comments outline, in detail, the history associated with the use of Boat Harbour and its long fight associated with the existence of the Mill and the use of Boat Harbour and the lands associated with the BHETF. The Province is participating as the Proponent in the Government of Canada's consultation with PLFN on the proposed Project, which aims to remediate Boat Harbour and the lands associated with the BHETF, by among other things, vertically (but not horizontally) expanding the existing approved containment cell, through this environmental assessment process. While the Project will ultimately lessen the existing geographic extent of current underlying adverse effects on the PLFN Section 35 rights by limiting them to the footprint of the existing containment cell, the Province again maintains the view that any arguments surrounding the potential unjustifiable infringement of PLFN's Section 35 rights, including in relation to reserve lands adjacent to the existing approved containment cell, prior to the Project are matters which are beyond the scope of these consultations and this environmental assessment.

[PLFN, paras 15-22]

PLFN provides detailed arguments surrounding its assertion of title to the lands surrounding Boat Harbour and the BHETF, as well as a variety of other issues, including the existence of the containment cell and the adequacies of the consultation before the construction of the containment cell, for example, all of which are outside the scope of this environmental assessment and are matters to be determined within the legal action PLFN brought against the Province, Canada and Northern Pulp, etc. Further to the Province's statements above about the remedial nature of the Project and the accommodation measures taken by the Province to date, it would be inappropriate for the Province to address those comments within this environmental assessment process. This is not to say the Province will not address the concerns raised, it will do so, but within the proper legal forum.

[PLFN, paras 49-89, 134, 137]

PLFN has raised issues around the Agreement in Principle and alleged the Province failed to meet its obligations by failing to enter into the negotiations contemplated by the 2014 Agreement in Principle, which is presented in Annex 3. This is simply not true. Several Agreements evidence the continued negotiations between the parties. For example, Clause 2(b) of the Agreement in Principle required the parties to negotiate accommodation expenses and participation on the cleanup of the site. In 2014, the parties executed a Contribution Agreement to fund expenses of PLFN, including accommodations, for their costs associated with the meetings, communications, third party costs and other issues.

[Memorandum of Agreement, dated October 14, 2014]

A further example is Clause 2(c) of the Agreement in Principle, dealing with Indian Cross Point. In September 2014, several months after the Agreement in Principle, the parties discussed the possibility of funding a parcel of land available on the market from The Baker Estate sale, on the premise that it would demonstrate meaningful and significant progress towards fulfilling the Province's commitment to the PLFN under Clause 2(c) of the Agreement in Principle. Chief Paul provided written confirmation of this agreement to Ken Swain. The parties' agreement was put into the form of a written Agreement dated October 14, 2014. In 2019, the Province engaged Boreas Heritage Consulting to do a ground penetrating radar ("GPR") assessment of lands along the pipeline corridor down to Indian Cross Point as well as GPR assessment over into the old Indian Burying Grounds identified on crown mapping from the 1700s. A copy of the report was provided during a presentation carried out by the archaeologist at a public meeting in 2019.

[Agreement re: Purchase of Burial Grounds, dated October 14, 2014 and
Boreas Heritage Consulting report, refer to Annex 3]
[PLFN, paras 7, 90-106, 143-147 and 181]

The cleanup of Boat Harbour and the surrounding lands will result in long term positive effect on local habitat within the Site area and will enable PLFN to use the land once again for traditional purposes.

A Mi'kmaw Ecological Knowledge Study (MEKS) was conducted for the Project Site and surrounding area. The MEKS found that Mi'kmaq land and resource use was reported on the Project Site, and that hunting and gathering were the most common activities that occurred in the past. Current use is mainly to harvest fur-bearing creatures. Recreational water activities such as swimming and canoeing were historically common in the waters surrounding PLFN in Pictou Harbour, Chance Harbour, Boat Harbour, and other local waters. There has been little recreational water activity in and around Boat Harbour since its industrialization in 1967.

The Project may have short-term effects on the PLFN community through increased noise, light and potential odours. These potential adverse effects will be minimized and managed through the Project Environmental Management Plan. The long-term environmental changes resulting from the cleanup of Boat Harbour and surrounding area will be positive: the contamination will be removed, Boat Harbour will be returned to a tidal estuary, and adverse effects on PLFN's asserted or established Aboriginal or Treaty rights will be minimized to the footprint of the existing containment cell. This will allow the land to be re-established as an area used for traditional recreation, fishing, hunting and gathering medicines, foods and herbs, as well as for physical, mental, spiritual and emotional purposes by PLFN and the broader Mi'kmaq community.

The long-term storage of the impacted sediment and material in the existing approved containment cell may not completely undo the harm associated with the contamination caused by the Mill, but it is the safest and most technically and environmentally feasible solution. As noted, this is the assessment which led to a solution based upon current technology and site availability, and the Province will consider emerging proven technologies and/or site availability as may arise in the future.

[See Mi'kmaq version Boat Harbour Remediation Project Overview, refer to Annex 3]

There will also be economic development opportunities for PLFN through the course of the Project.

*[Final Report Boat Harbour Remediation Project - An Analysis of Indigenous Economic Opportunities
Submitted by: Group ATN Consulting Inc. to Pictou Landing First Nation
Date: February 18, 2019, refer to Annex 3]*

The scope of the duty to consult is restricted to the potential adverse effects on asserted or established Aboriginal and/or Treaty rights arising from the proposed project as confirmed by the Supreme Court of Canada in *Chippewas of the Thames First Nation v. Enbridge Pipelines Inc.* It is not meant to address past grievances. In this case, the proposed Project is for the remediation of Boat Harbour, a component of which involves the vertical expansion of the existing approved containment cell. Accordingly, while the Project will ultimately lessen the existing geographic extent of the current underlying adverse effects on the PLFN Section 35 rights by limiting them to the footprint of the existing containment cell, the Province is of the view that the duty to consult is restricted to the potential effects arising from the proposed vertical expansion, not to address past grievances associated with the existence of the containment cell.

[2017 SCC 41, at para 41]

The Project in question is an environmental remediation project designed to remediate the BHETF and return Boat Harbour to a tidal estuary. This objective was established through consultation with PLFN. Should the Project receive its EA approval and be permitted to proceed, it is anticipated the long-term environmental changes following the cleanup of Boat Harbour, through the Project, will be positive and allow the land to be re-established as an area used for traditional recreation, fishing, hunting, and gathering of medicines, foods, and herbs.

The Project's proposed expansion of the existing approved containment cell (which will be managed, monitored, and maintained in perpetuity) may not be the perfect solution, but it has been assessed as the most technically and economically feasible solution. In fact, the proposed expansion of the containment cell is consistent with the EIS Guiding Principles: "2.4 Application of the precautionary approach. In documenting the analyses included in the EIS, the Proponent will demonstrate that all aspects of the project have been examined and planned in a careful and precautionary manner in order to avoid significant adverse environmental effects." The proposed removal and relocation of the additional sludges to another location would present significant risk through transporting the contaminated materials over public highways and create significant adverse environmental impacts.

[See IR82 response submitted on August 17, 2022, to PLFN]

The duty to consult and potentially accommodate, when triggered, does not necessitate a particular outcome, and the Crown is not to be held to a level of perfection in fulfilling its duty. BuildNS has made every reasonable effort to inform and consult with PLFN on the Project and accommodate potential adverse effects on PLFN's asserted or established Aboriginal or Treaty rights. The consultations and

information sessions date back to 2015 and have been ongoing since that date. In addition to the BuildNS consultation and information sessions, BuildNS has relied upon the environmental assessment process administered by IAAC as the regulatory authority for fulfilling the duty to consult. Pursuant to these efforts, the Province maintains the position that it has acted in accordance with the Honour of the Crown in relation to the Project, which advances reconciliation by balancing the rights and interests of the PLFN with the rights and interests of all Nova Scotians.

[*Haida Nation v. British Columbia (Minister of Forests)*, 2004 SCC 73, para 62] [PLFN, paras 107-114, 182]

There is no requirement to reach agreement with PLFN on the intended government action. With that said, the Province acknowledges that the Crown must be willing to make changes on the use of the existing containment cell in light of the Section 35 rights-related information it receives from the PLFN during consultation. In this case, in response to the PLFN's concerns about the long-term viability of the existing containment cell, even though the existing containment cell has been functioning well without issues since the mid-1990's, the Proponent made changes to its design to accommodate the PLFN's concerns. The design was amended to improve the baseline or existing containment system and to ensure it is installed and tested according to best practices using quality control assurance procedures. The Proponent has reassured the PLFN that groundwater and surface water monitoring programs were included in the Project design to monitor the existing containment cell during and post closure, based upon standard good industry practice. A long-term post-closure monitoring and care system for the existing containment cell has been established to ensure its integrity and to make available the groundwater and surface water monitoring results as well as the long-term monitoring care reports be published on the Project's website.

The Project design and plans were also updated to address PLFN's concerns relating to Indian Cross Point by conducting an archaeological survey including a ground penetrating radar assessment searching for evidence of burial sites. Also, relating to the planned new highway bridge construction, the Proponent added a temporary by-pass causeway to the Project plans for use during the removal of the existing causeway and the construction of the new bridge. Pursuant to the desire of the community, the Proponent added sidewalks on both sides of the highway bridge and ensured the new highway bridge is designed to be at the same height off the water as the former bridge that was removed to construct the dam.

The PLFN's concerns relating to off-gassing were reviewed and assessed as part of the Proponent's Environment Impact Statement. PLFN's concerns surrounding the vegetation and trees around Boat Harbour were also addressed in the Environmental Impact Statement where the Proponent noted, "*Our goal is to return Boat Harbour to a tidal estuary so community members can benefit from its use for generations to come. Our studies indicate that vegetation surrounding Boat Harbour will be safe for use in the years following the Project.*"

[See Environmental Impact Statement, Section 5.4, pgs. 5-59 to 5-63]

[PLFN, paras 115 -117]

Through these efforts, the Province further accommodated potential adverse effects on PLFN's asserted or established Aboriginal or Treaty rights as stemming from the Project. At the same time, while the Province is again of the view that the underlying adverse effects as stemming from prior to the Project are matters beyond the scope of these consultations/environmental assessment, the Project nonetheless will ultimately lessen the existing geographic extent of current underlying adverse effects on the PLFN's Section 35 rights by limiting them to the footprint of the existing containment cell, which will be vertically, but not horizontally, expanded as part of the broader remediation of Boat Harbour and the lands associated with the BHETF. As a result, the Province maintains the view that this remediation will enable the members of the PLFN to exercise their asserted or established Aboriginal and/or Treaty rights in a broader geographic portion of the PLFN's traditional territory (A'se'k) than they currently are able to do.

In light of the foregoing, the Province is of the view that the Project advances reconciliation by balancing the rights and interests of the PLFN with the rights and interests of all Nova Scotians, in accordance with the duty to consult, resulting in the Province having upheld the Honour of the Crown.

2.3 Technical Issues from PLFN Feedback, Including Aspects of the Hive Engineering Report

The Environmental Impact Statement (EIS) does not detail any impact of the containment cell on IR or PLFN fee simple lands. The impacts to the ability of PLFN to exercise aboriginal and treaty rights on the property containing the containment cell are entirely within the provincially owned lands and this is acknowledged in the EIS.

[PLFN, para 1]

The examination of this one identified site is the basis for the Information Requirement 82. The information requirement does not contemplate examining multiple sites. The assessment of offsite disposal is addressed in the EIS.

[PLFN, para 2, 158- 163, 165, 171]

The feasibility study was prepared by the Province and provided to PLFN in August 2022, and PLFN provided comments in August 2023.

[PLFN, para 3]

IR82 requires an analysis of one identified site at Mount William and that was completed.

[PLFN, para 4]

The Province advised PLFN legal counsel by telephone on March 11, 2021 of the Province's intention to take on responsibility for the remediation of the sludge from the Aeration Stabilization Basin (ASB). Counsel advised Proponent by e-mail that PLFN Chief and Council was informed that same day.

The noted quantity of sludge in the ASB was always within the scope of the Project and the EIS.

[PLFN, para 8]

IR82 required the assessment of one site in Mount William and that was completed. The information requirement does not contemplate examining multiple sites. The assessment of offsite disposal is addressed in the EIS.

On behalf of the Proponent, NSECC was asked to review the Mount William site for suitability to construct a containment cell.

[PLFN, para 11]

With an existing facility, in general, current-day siting criteria would not be applied. An example of this is the former oil refinery which was in the middle of a residential area in Dartmouth, NS. The facility would not be required to move because they do not meet current day siting criteria but instead would be required to implement heightened mitigative measures to ensure the facility does not cause an adverse effect, and the footprint of the facility would be limited to ensure the maximum possible separation distances are maintained. When modifications are necessary, current day design standards must be met or exceeded.

[PLFN, para 12, 14, 167]

On behalf of the Proponent, NSECC was asked to comment on the suitability of the Mount William site, not to provide comments or advice on mitigative measures. From the perspective of NSECC, the site would not be suitable for the construction of a containment cell for multiple reasons. First and foremost is the significant risk to both groundwater and surface water. To suggest this could be overcome with mitigative measures is not appropriate. The Mount William site is a green, undeveloped site. It would not meet the Province's requirements for the siting of a municipal landfill and would not receive approval if proposed, therefore, the site would not be approved for the construction of a Hazardous Waste landfill.

[PLFN, para 13]

The feasibility study was prepared by the Province and provided to PLFN in August 2022, and PLFN provided comments in August 2023.

[PLFN, para 29]

The Well-Being Study quoted in PLFN's response was commissioned, led and carried out by PLFN. While it was funded by the Proponent, the Proponent was not involved in the establishment of boundaries set out by PLFN in the Well-Being Study. The spatial boundaries adopted by the Proponent for the EIS are not the same as the boundaries used by PLFN in the Well-Being Study. Refer to Section 1.2, Figure 1.2-1 of the EIS which defines the EIS study area boundaries.

[PLFN, para 30]

Nine times is an exaggeration. There are 180,000 cubic metres currently in the cell. The Project under review is asking for approval to dispose of 1,072,000 cubic metres. Six times is a more accurate statement.

[PLFN, para 47]

NSECC (NSE at the time) was not required to undertake consultation at the time of the design and construction of the existing containment cell (1995/96). Compensation is not within the mandate of NSECC. NSECC cannot comment on adverse effects to IR lands as NSECC is not aware of adverse effects resulting directly from the existing containment cell.

The existing containment cell is monitored regularly, in accordance with NSECC requirements. This monitoring concludes that there are no observed environmental impacts outside the perimeter boundary of the existing containment cell which is located entirely on provincial lands.

[PLFN, para 49]

The complete text from EIS s. 6.4.2.2, at p. 6-14 and 6.15 is as follows: *“The existing containment cell is situated between IR 37 and IR 24G as shown on Figure 1.2-1. It does result in some limitation on land use in the areas around the existing containment cell and future modern containment cell. It is anticipated that such limitations on land use will not be further impacted by the BHRP as the use of the containment cell is a long-term component of the Project with its planned maintenance and management during and post-remediation.*

The planned volume expansion of the containment cell will be an expansion to its height, or a vertical expansion, and not an expansion to its footprint, or a horizontal expansion. As such, the long-term existence of the containment cell will not result in increased limitations of land use from a footprint or access perspective beyond the limitations which have existed since the mid-1990s.” Refer to Figure 6.3.1 in Section 6.3 of the EIS.

The EIS referenced paragraphs above do not state that there is an adverse impact on IR37 and IR24G. The reference to IR37 and IR24G in the EIS was intended to simply situate the location of the containment cell. Our implication is that the limitation on land use would apply to the containment cell and the provincially owned lands upon which it was situated. The containment cell is entirely located within the boundaries of provincially owned PID 00801191. The quote from the EIS is: *“It does result in some limitation on land use in the areas around the existing containment cell and future modern containment cell.”* Our decision to have only a vertical expansion of the containment cell was intended to ensure that it did not cause further limitations in land use beyond the boundaries of the provincially owned lands upon which it is situated.

[PLFN, para 50, 54, 76, 82, 178]

The extract from the minutes is noted. A decision on using the existing containment cell was not made as of April 19, 2018. The decision to use the existing containment cell was not taken until August 2018 in briefings to and direction from the Nova Scotia Executive Council.

[PLFN, para 124]

The EIS Section 6 summarizes the intent to transfer all lands in and around Boat Harbour, and in addition, it indicates they also intend to transfer lands around the estuary, which exceeds the stated commitment.

[PLFN, para 129]

Refer to Section 5 of the EIS and note that IAAC took over lead consultation in about September 2019.

[PLFN, para 131]

When NSECC receives an application for Approval, they first look to provincial guidelines and standards that may be applicable, then they do a jurisdictional scan across Canada and, if necessary, look further afield at all of North America or even Europe, depending on the activity under review. NSECC does not have guidelines or standards specific to the construction of hazardous waste landfills.

[PLFN, para 166]

The NSECC review of the Mount William site cited only the criteria that made that location unsuitable.

[PLFN, para 168]

NSECC were asked to review the Mount William site for suitability to construct a containment cell. NSECC determined that the Mount William site was not suitable for a hazardous waste landfill development, and as such, would not be approved.

[PLFN, para 169]

NSECC was not asked to provide comment on or provide a comparison with the existing containment cell. NSECC does not assess existing facilities against current-day siting criteria to require the facility to find an alternative location. The criteria may be used to assess the need for mitigative measures or limiting the footprint of the facility.

[PLFN, para 170, 172]

NSECC was asked to comment on the suitability of the Mount William site. From the perspective of NSECC, the site would not be suitable for the construction of a containment cell for multiple reasons. First and foremost is the risk to both groundwater and surface water. The Mount William site is a green, undeveloped site. It would not meet the Province's requirements for the siting of a municipal landfill and

would not receive approval if proposed; therefore, the site would not be approved for the construction of a Hazardous Waste landfill.

[PLFN, para 173, 174, 175, 176, 183]

Assessment of the Hive Engineering Report

The Proponent has reviewed in detail the Hive Report offered in the PLFN's response provided on August 25, 2023 and has extracted relative comments/remarks offered in the report that in the Proponent's view requires comment/clarification and or correction. These comments are organized and identified by section, page number and paragraph number. Relevant excerpts from the Hive Engineering Report requiring address are presented in italics and quotes directly proceeding each response from the Proponent.

Background

"This information is required to ensure that the assessment of alternative means was sufficient to allow the evaluation and the selection of the preferred alternative for waste management and increase the Agency's understanding of the potential effects of the Project, including potential impacts to Aboriginal and treaty rights."

The information is not required to ensure the evaluation and selection of preferred options. The information was required for evaluation of IR82.

All alternatives, including on and off-site disposal, are fully presented in the Remedial Options Decision Document (RODD) and included in the EIS.

BuildNS' evaluation of a site-specific location proposed by PLFN, while resulting in additional costs to the Project due to delays and inflation, has clearly re-affirmed the findings of the RODD and the soundness of the Project as proposed in the EIS.

[Hive 1.1/2/last paragraph]

"BUILD NOVA SCOTIA provided a response to IR82 that was in favour of the on-site containment cell remaining in its current location. The argument BUILD NOVA SCOTIA presented was considered technically sound and was supported with appropriate, industry-standard engineering and scientific principles. The initial concern identified upon review of the Environmental Impact Statement (EIS) was pertaining to the lack of detail surrounding the selection of potential alternatives and the limited acknowledgment of PLFNs objections to the containment cell remaining on-site. The IR82 BUILD NOVA SCOTIA response contained text to address these concerns. BUILD NOVA SCOTIA also documented their understanding of the matter and the sequence of events as to how BUILD NOVA SCOTIA observed PLFN's objection to the on-site containment cell."

BuildNS fully documented in the RODD and included in the EIS, details of the criteria used in the selection of alternatives. The criteria adhered to were developed by experts in this field including professional engineers, scientists, and regulators.

PLFN's objections to the containment cell were documented in the EIS and significant mitigation measures and accommodations were included.

[Hive 1.1/3/2]

"In the Response to IR82, BUILD NOVA SCOTIA has examined, in detail, one specific alternative to the on-site containment cell; the request from IAAC was specific for BUILD NOVA SCOTIA to solely examine one specific location in Mount Williams, Parcel Identifiers (PIDs) 00865485, 00865469, 65170508 and 65170516. It was not the intent of PFLN to limit the analysis of alternative options to only one Site, but rather to demonstrate that with some additional assessment, an alternative location could be sourced. For example, PLFN had examined multiple properties that are within its own portfolio. The following table presents some of the properties in the PLFN portfolio that have some potential for development for a long-term waste disposal cell."

This is irrelevant to IR82. The Project submitted for approval includes use of the existing containment cell, and BuildNS' response to IR82 addresses the IR82 requirement to examine the Mount William site feasibility.

[Hive 1.1/3-4/3]

1.2 NS Lands IR 82 Response

"NSECC notes that both a Federal and a Provincial EA will be required. However, as noted with the EA work on Northern Pulp Nova Scotia (NPNS) submittals, one or the other will be required and it is our experience that, contrary to what was noted by NSECC, both a Federal and Provincial EA will not be required. Either the Federal Government will take the lead, or the Provincial Government will take the lead on the Environmental Assessment. Both sides will be stakeholders and provide review and comment; however, typically only one government entity will take the lead. To date, there have been no discussions of a joint review committee. In addition, there will be Provincial Approvals required, regardless of the containment cell being on-site or off-site".

This is Irrelevant to IR82. Indeed, in addition to Federal EA approval, the proposed Project will require additional Provincial and Federal Approvals.

For the sake of clarity, HIVE has misstated the regulatory process. When an environmental assessment is required by both Federal and Provincial legislation, the governments can choose to harmonize or carry out independent EA processes. Should both levels of government decide on a

harmonized assessment, one level of government would take the lead in the consultation process. Alternatively, one level of government can choose to not conduct an environmental assessment and the other level of government's EA process would assess the project.

[Hive 1.2/5/2]

"It is further noted that most arguments that NSECC makes against the proposed Mount William site apply to the existing location. For instance, the existing containment cell has the following concerns in common with the Mount William Site:

- 1. Located within one kilometer of residential and commercial buildings.*
- 2. Located directly adjacent to surface water features and wetlands.*
- 3. Groundwater potentially within the depths of the new liner system "*

Refer to Technical Response section which responds to PLFN Paragraphs 12, 14 and 167. [Hive 1.2/5/5]

"It is understood that the containment cell will remain the responsibility of the Province in perpetuity. However, this situation is more complex than simply dealing with the containment cell. For instance, the socio-economic considerations associated with the original placement (i.e., environmental racism), whether deliberate or accidental, of the original BHETF at Boat Harbour. The containment cell remaining at this Site is a lingering monument to this incident, which is not perceived favorably by the PLFN community. The socioeconomic impact of the cell remaining in place is being underrepresented in this EIS so far."

This statement is unsupported given the evidence provided in the EIS in particular, Sections 5 and 6.

The EIS under review is solely related to remediation of contamination in Boat Harbour and is not about historical grievances.

[Hive 1.2/6/2]

"The existence of a suitable existing containment cell could be an impediment to getting wetland alteration approval. If the 10 hectares of land that the containment cell are placed on were given back to PLFN with the other 173 hectares, then the existing containment cell would no longer be a viable option and would not be an impediment to obtaining a wetland approval. Further, in its current state, the containment cell cannot receive the sediment without a complete upgrade to the liner system. So, as the containment cell sits at present, it is not a viable alternate location."

It is clear the author is not familiar with the complexities of siting a waste facility in Nova Scotia, especially one that is located on a greenfield site that is a productive wetland and a source of drinking water.

The writer's statement, *"in its current state, the containment cell cannot receive the sediment without a complete upgrade to the liner system"*, is incorrect. BuildNS holds an Industrial Approval for the existing containment cell and as such, has authority to use the current cell to its existing capacity, without any modifications. The existing containment cell is monitored regularly, in accordance with NSECC permit requirements. This monitoring concludes that there are no observed environmental impacts outside the containment cell's boundary, which is located entirely on provincial lands.

As part of the Project, BuildNS intends to increase the capacity of the containment cell which would be reviewed in accordance with Provincial regulations. The detailed engineering design is fully documented in the EIS. The upgrade to the approved existing containment cell has been designed by professional engineers whose specialty is the design and construction of such facilities.

The Province has never contemplated returning to PLFN, the land where the existing approved containment cell is currently located. Care and control of the cell will be the Province's responsibility in perpetuity.

For the purposes of IR82, the alternative location in Mount William was evaluated by NSECC on its own merits, against current siting criteria and not ranked in comparison to any other site, existing or otherwise. The existence of the facility at Boat Harbour had no bearing on NSECC's conclusion that the Mount William location is not suitable for such a facility.

[Hive 1.2/6/4]

CROWN LAND
PRIVATE LAND

These sections are irrelevant to IR82. All aspects of offsite disposal were thoroughly reviewed by numerous experts/professionals during the review of alternatives. It is fully documented in the RODD and included in the EIS. The RODD clearly rendered a site-by-site analysis moot.

[Hive 2.0 and 3.0 pgs. 7-10]

CONTAINMENT CELL LOCATION SITING ANALYSIS

This is irrelevant to IR82. The analysis of locating any hazardous waste site is regulated by NSECC. See the RODD, all aspects including regulatory boundaries were taken into account. There is nothing new to respond to here.

[Hive 4.0 pgs. 11-12]

4.2.1.1 Existing Boat Harbour Containment Cell

“The cell contains waste material from the historical routine clean out of the various structures located at Boat Harbour and from NPNS. The waste and impacted materials, among other chemicals, have been identified as containing chlorinated dioxins and furans (D&F) at levels higher than 100 parts per billion expressed as dioxin toxicity equivalent (TEQ). The D&F-containing waste material is defined as “wastes containing dioxins” within the British Columbia Environmental Act Hazardous Waste Regulations. This definition captures wastes containing dioxins and furans that are not captured as toxic substances in class 6.1 of the Transportation of Dangerous Goods (TDG) Regulations. This distinction becomes important during the assessment of the various siting guidelines that NSECC used to refute the Mount Williams Location.

The PLFN off-peninsula well field is located approximately 2 kilometres from the active containment cell. Based on the AECOM Nova Scotia Lands Inc., Boat Harbour Hydrogeology Assessment, Project Number 60446127, dated April 2016, report, the 2015 well operating rates were reported as 82.1 m³/day from PW9 and 86.7 m³/day from PW10. This equates to a pumping withdrawal rate of 116.7 liters per minute (lpm). The 2016 AECOM Hydrogeology Assessment of the PLFN Well Field concluded that the off-peninsula well field would be considered safe provided the water levels in the pumping wells remained above sea level. There was concern that if the pumping level in the wells dropped below sea level, it could potentially change the predicted estimated horizontal flow direction from east to west, to potentially west to east, drawing Boat Harbour water toward the pumping wells. The 2010 Dillon Groundwater Monitoring Program Report also noted “If the water level in a well drops below sea level for an extended period of time sufficient enough to change the groundwater flow regime, these effects could be irreversible. Drawing saltwater or water from Boat Harbour into the wellfield is not desirable and could lead to deterioration in water quality.” Given that both assessments came to the same conclusion pertaining to the PLFN well field and its relationship to Boat Harbour, it is reasonable to conclude, for the purposes of this analysis, that the existing Boat Harbour Containment Cell is within the recharge area for the PLFN well field.”

This comment is very misleading and misinterprets the findings of both reports quoted. Both the AECOM and Dillon reports came to the same conclusion that there is no hydraulic connection to Boat Harbour or the Containment Cell with respect to PLFN drinking water wells.

Further, PLFN’s existing potable water well field was sited by the PLFN in 2006, well after the establishment of the Boat Harbour Treatment Facility and the existing containment cell. Studies conducted by PLFN’s own consultants concluded that Boat Harbour (present within several hundred metres of the well field) posed no risk to the groundwater wells, let alone the containment cell which is sited over two km from the water wells.

[Hive 4.2.1.1/15/1-3]

“The NPNS Site has three landfill cells. Landfill Cell 1 and Landfill Cell 2 are both closed. Landfill Cell 3 is active and operating under an existing Approval from NSECC. There were no siting criteria exceedances noted for the NPNS Active Waste Cell. Coupled with the existing Approval to Operate, this site is considered a viable candidate; however, it should be acknowledged that there are political and financial considerations that were outside the scope of this analysis.”

This is irrelevant to IR 82.

[Hive 4.2.1.2/16/1 – 2]

2.0 SITING CRITERIA AND MITIGATION MEASURES

“However, with the right combination of mitigation, engineering and compensation, there are few siting issues that could not be overcome. It is acknowledged that there are limited financial resources for these projects and therefore some commonsense approach should be applied when considering a reasonable approach to mitigate pathway barriers.”

BuildNS fully agrees with this statement and would refer HIVE to the EIS where this in fact is fully discussed. The Proponent has developed effective mitigation based on sound science, engineering and where required, compensation.

BuildNS has provided a viable plan for the containment of the recovered sludge at the existing on-site approved facility.

BuildNS completely agrees with fiscal responsibility/accountability and as such has proposed a commonsense approach for the entire Project.

[Hive 5.0/19/2]

Appendix A: Table 2-1 Possible Crown Land Options

This is irrelevant to IR 82.

[Hive Pages A1 to A6]

Annex 3

Supplementary Documents referenced in Annex 2

1. Land Use Plan - Membertou Geomatics
2. Analysis of Indigenous Economic Opportunities – Group ATN
3. BHCC Minutes Feb 22, 2019 meeting
4. BHCC TORs
5. BHRP Project Overview, Mi'kmaq version
6. Correspondence Regarding IAAC Consultation Work Plan (Email and Letter)
7. Email Ken Swain to Chief Andrea Paul of October 17, 2019 and related correspondence
8. Agreement in Principle June 2014
9. Memorandum of Agreement dated October 14, 2014
10. Agreement re Baker Estate
11. Boreas Heritage Consulting report on INDIAN CROSS POINT ARCHAEOLOGICAL RECONNAISSANCE AND GROUND PENETRATING RADAR SURVEY PICTOU COUNTY dated September 2019

Annex 3.1

Land Use Plan - Membertou Geomatics

**Pictou Landing First Nation
Nova Scotia Lands Inc.
A'se'k (Boat Harbour) Land Use Plan**



**Membertou Geomatics Solutions
Halifax and Membertou
Final
February 06, 2019**

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Introduction

The following Boat Harbour Land Use Plan (LUP) submitted by Membertou Geomatics Solutions (MGS) is a result of engagement, mapping, analysis and planning. The Plan also takes into consideration the various land-based initiatives currently under development by Pictou Landing First Nation (PLFN) and supported by Nova Scotia Lands (NSL).

MGS was invited by Pictou Landing First Nation to develop a Land Use Plan, including a Proposed Future Land Use Map, Proposed Zoning Map and supporting Zoning Guidelines for Boat Harbour Remediation Project Lands to be transferred to Pictou Landing First Nation. A single Land Use Plan (Map) for Boat Harbour Map was developed that incorporates both proposed future land use and land use zones on the map and within the accompanying Land Use Plan documents.

It was not the intention of the original proposal to develop land use by-laws nor was it the intention to work only within the Nova Scotia Lands' parcel when developing the Future Land Use Plan. Rather, this Plan incorporates PLFN Reserve parcels, adjacent PLFN fee simple parcels and future prospect parcels into the land use planning documents. This will assist and guide Pictou Landing First Nation and the Boat Harbour Remediation Project decision makers in their future design and choice of technologies to apply to the remediation of the effluent pond and shores of Boat Harbour, Pictou County.

The Land Use Planning Document's content within is based on the direction provided by meetings with Pictou Landing First Nation committees and community. The major assumption allowed for this Plan is that all pending transfers to PLFN of lands and the waters contained within will be deemed safe based on relevant National, Provincial and PLFN acceptable standards. The Plan also takes into consideration the future direction of Pictou Landing First Nation's current Reserve Lands as well as their current and possible future land holdings adjacent and in addition to the Boat Harbour Remediation Project lands.

Reserve Parcels: Boat Harbour West I.R. No.37 (98.2 Hectares)
 (Including: 65138836, 01045343)
 Fisher's Grant I.R No. 24 (142.7 Hectares)
 (Including: 00802603, 00802611, 65073298, 65073306)
 Fisher's Grant I.R No. 24G (60 Hectares)

(Including: 01045350)

PLFN Fee Simple Lands: 00878421, 00878413, 00842021, 0087839, 65170656, 00801217, 00801027,
00801415, 00801209, 65214264

N. S. Lands Parcel(s): 65052607, 00801191

Other Parcels: 00878538, 00878504, 00878462, 00878454, 65022147, 00813600, 65043580,
00961367

Existing Plans/Zones/By-laws In Effect

There exists the Pictou Landing Band, *Zoning By-law No. 1*, with respect to Forest Management Zones as per the *1999 Pictou Landing Forest Management Plan*. *Zoning By-law No. 1* was adopted by PLFN in 1999 and covers the southern portion of Fisher's Grant, I.R. 24 (Less PID 65073298, 65073306); all of Fisher's Grant, I.R. 24G and all of Boat Harbour West, I.R. 37 and remains in effect.

PLFN Chief and Council are aware of the existing *1999 Zoning By-law No.1* and have resolved to further review the relevance of the existing Zoning By-law and Forest Management Plan and how the documents fit into the proposed 2018/2019 Boat Harbour Land Use Plan and Future Development. PLFN Chief and Council will make a decision at a later date as to any possible amendments, retaining parts of the existing By-law and Forest Management Plan or superseding the existing By-Law and Plan with the pending adoption of the new 2018/2019 Boat Harbour Land Use Plan.

All other Non-Reserve Parcels including the PLFN Fee Simple and Nova Scotia Lands Parcels are currently under the existing Municipal By-laws of the Municipality of Pictou County. The existing Municipal By-laws of the Municipality of Pictou County should have minimal effect on proposed land use as existing Municipal By-laws consider all lands outside a separate town plan as Rural and impacts Wind Turbine Development most. The Proposed Boat Harbour Land Use Plan depicts the future development of the Plan Area as pending Future PLFN Reserve Parcels.

There was no Water Source Protection Zone Plan found concerning PLFN well field located in the hills (Grid 5C, 5D) on the eastern shore of Boat Harbour near the outlet to the Strait. However, after review

of available hydrological studies of Boat Harbour, consideration was given within the proposed Land Use Plan to a possible well protection zone and only low impact land uses are proposed for this area.

Approach

MGS proposed to work with Pictou Landing First Nation (PLFN) up to six (6) months period, from the time of first official project meeting with Pictou First Nation to develop and deliver a Land Use Plan for Boat Harbour.

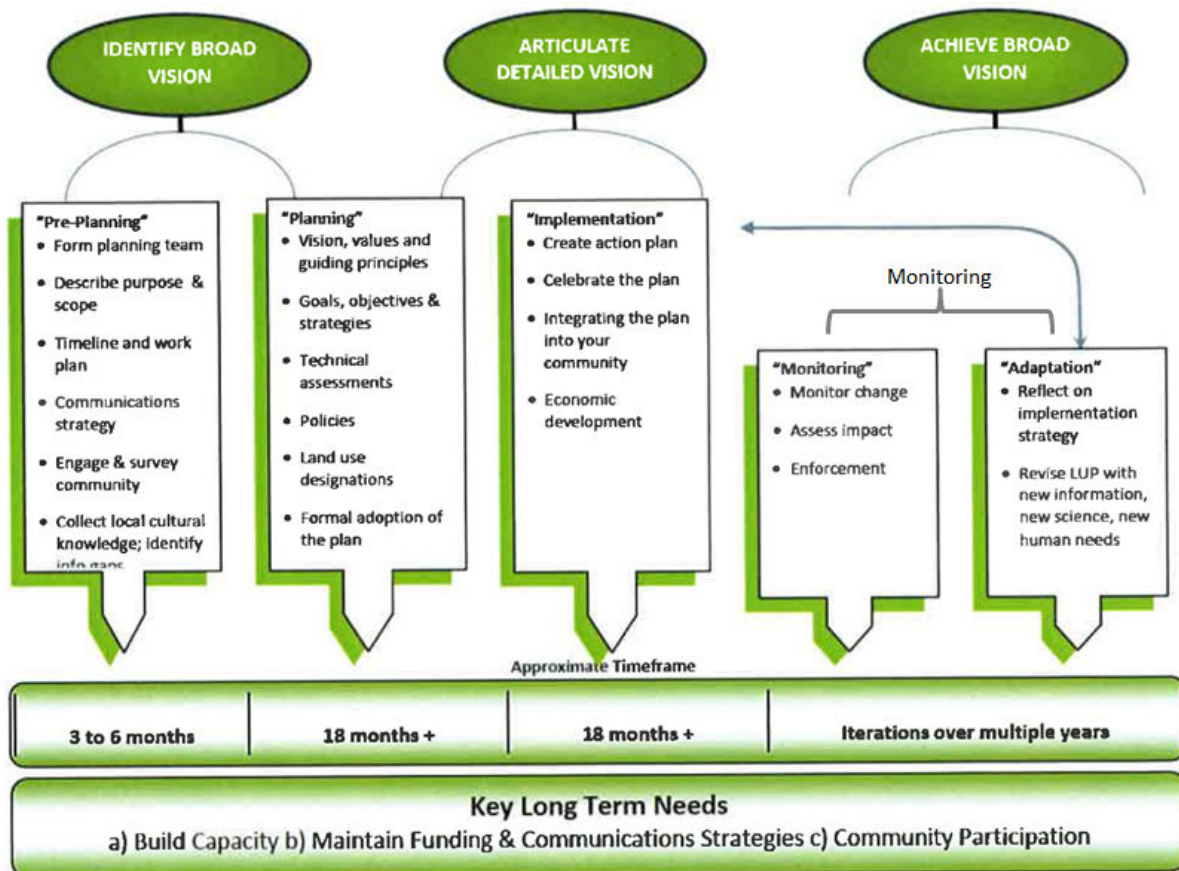
Although the Boat Harbour Land Use Plan is supported by the Province of Nova Scotia through Nova Scotia Lands, the planning process will be a PLFN local level land use plan with a “community driven” process.

The Land Use Plan was created through a team approach whereby MGS worked with the PLFN community, PLFN Boat Harbour Land Use Planning Committee, PLFN Boat Harbour Land Use Working Group as well as the PLFN Lands and Economic Development Office. The PLFN Chief and Council provided support, letters of support and reviewed draft documents which further strengthens a Land Use Plan for Boat Harbour that is representative of Community wishes and is owned by Pictou Landing First Nation.

Methodology

Land Use Planning is finding a balance between community land use requirements and what the given land can provide. That balance involves determining what are a community’s land use requirements and finding a match with land that can accommodate those requirements in an efficient, environmentally sustainable, economical and socially acceptable manner.

The Land Use Plan Model developed by the National Aboriginal Land Managers Association (NALMA) is the chosen model for the Boat Harbour Land Use Plan. The model suggests an 18 month time frame for completion the first 2 Phases of a 4 Phase Land Use Plan model that includes a Pre-Planning Phase and Planning Phase. Another 18 month time frame is recommended by the NALMA model for the Implementation Phase and a time frame in years for the Monitoring Phase:



Ecotrust Canada/NALMA, 2017

However due to time constraints created by the Planning-Design needs of the Boat Harbour Remediation Project, the Boat Harbour Land Use Plan was developed over a 5 month period as of Mid-July. Although the NALMA recommended timeframe was shortened considerably, the results of this Plan are thorough as a result due in part to MGS previous experience and knowledge of the Boat Harbour and surrounding area with participation in other concurrent and earlier project work regarding PLFN Lands as well as the Boat Harbour Remediation Project. The short time frame was also possible in part to the small community population which allowed MGS to obtain a good representative sample of community input and feedback.

Total Registered Population (Mar. 2017):	667
Total Registered Population On-Reserve:	487
Total Registered Population Off-Reserve:	158

Overview

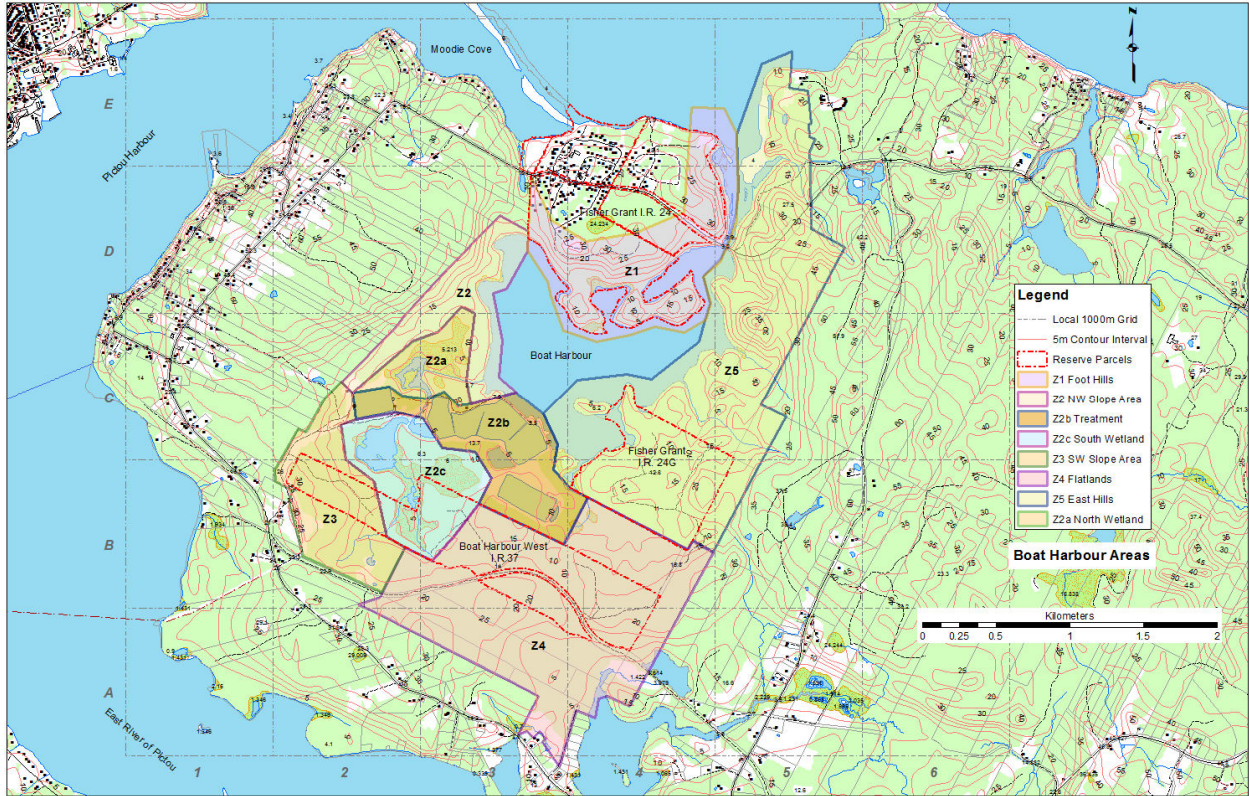
Boat Harbour was a former tidal estuary that is now a controlled effluent pond, located on the Northumberland Strait southern shore between Pictou Harbour and Chance Harbour, Pictou County, Nova Scotia.

The lands surrounding the former tidal estuary of Boat Harbour, are the subject of this Boat Harbour Land Use Plan. The parcels contained within the area covered by this plan are comprised of PLFN Reserve parcels, PLFN fee simple parcels, PLFN future prospect parcels and N. S. Lands parcels.

Boat Harbour began receiving effluent piped under the East River of Pictou from a new pulp mill at Abercrombie Point in 1967 via outlet into existing watercourse and wetlands. Improvements were made to the system since the early 70's including relocation of the pipeline outlet, additions of a settlement pond, aeration lagoons and waste containment cell. With these improvements, the original receiving watercourse and wetlands were removed from the effluent flow. At present, the March 2015 Boat Harbour Act mandates the closure of the existing waste treatment facility at Boat Harbour by the end of January 2020.

The total catchment area of the Boat Harbour Watershed is approximately 10 km² that includes approximately 2 km² of waterbody and 8 km² of land area. The 2018 Boat Harbour Land Use Plan area is bounded by existing parcel property lines and covers an area of approximately 6.8 km² of land area.

The Land Use Plan area is a large and varied landscape. Early in the planning process, it was decided that the landscape of the total of all parcels would be broken into smaller areas based on common topography or physical characteristics. This allowed more focus on the opportunities each area had to offer and the addition of a 1000m local Map Grid allows easy reference to any particular location within the total plan area. The use of Mi'kmaq names describing each area was suggested but renaming is to be decided at a later date.



Map 1, Boat Harbour Areas (Areas of Common Characteristics)

Area Z1, Foot Hills Area (Map Grid C4, D3, D4, D5, E4, E5)

Some Characteristics:

Near and adjacent existing Community (PLFN)

Steep sloped sides of elevated plateau with and hilly peninsulas projecting into Boat Harbour

Hardwood trees cover high areas

Softwood and alder cover low areas

Easily accessible (in distance) to Community (PLFN)

Waterfrontage on Boat Harbour and possible future frontage on existing outlet channel to Strait

Foot-like peninsula(s) may become an Island with rising sea levels

Existing highway access

Area Z2, Northwest Slope Area (Map Grid C2, C3, D2, D3)

Some Characteristics:

Adjacent existing Community (PLFN)

Steep to gentle sloped topography

Mix of hardwood trees and large softwood trees

Freshwater spring in northern portion of area

Aeration lagoons near southern portion of area

Easily accessible (in distance) to Community (PLFN)

Existing ATV trails throughout

Waterfrontage on Boat Harbour

Former farmlands now overgrown with mature trees

Existing habitat for beaver

Area Z2a, North Wetland (Map Grid C2, C3)

Some Characteristics:

Former treatment wetland (Late 60's-Early 70's)

Flat topography

Drains into Boat Harbour by manmade channel

Aeration lagoons adjacent to the south

Easily accessible from Community (PLFN)

Existing wetland habitat

Area Z2c, South Wetland Area (Map Grid B2, B3, C2, C3)

Some Characteristics:

Former treatment wetland (Late 60's-Early 70's)

Flat topography

Drains into North Wetland by manmade channel

Aeration lagoons adjacent to the north

Not easily accessible from Community (PLFN)

Existing wetland habitat

Area Z2b, Treatment Area (Map Grid B3, B4, C2, C3)

Some Characteristics:

Flat topography

Heavily disturbed with manmade structures

All existing (active) containment cell, settlement pond(s) and aeration lagoons are within this area

Waterfrontage on Boat Harbour

Note: Types of remediation to be determined. However, existing aeration lagoons are to be returned to safe condition and included in Boat Harbour Land Use Plan, Zone: Recreational RC2 (Natural Area).

Area Z3, Southwest Slope Area (Map Grid B2, C2)

Some Characteristics:

Adjacent existing aeration lagoons, North Wetland and South Wetland

Moderately steep to gentle slopes

Mix of hardwood trees and large softwood trees

Near highway and adjacent "Buck Road"

Former effluent pipe outfall (Late 60's-Early 70's) within this area

Existing active effluent pipeline within this area

Area Z4, Flatlands Area (Map Grid A3, A4, B2, B3, B4)

Some Characteristics:

Flat topography

Near highway and existing access via adjacent "Buck Road" and "Hidden Cove Road"

Access/Waterfrontage on Big Gut

Near population of Trenton and New Glasgow

Adjacent existing aeration lagoons and South Wetland

Area Z5, East Hills Area (Map Grid B3, B4, B5, C3, C4, C5, D4, D5, E5)

Some Characteristics:

Largest of all areas

Steep sloped hills and slopes

Waterfrontage on Boat Harbour and possible frontage on outlet channel and Northumberland Strait

Possible future beach access

Covered in large softwood trees and lodge pole pines

Sustainable forest area within

Existing highway access

Well water source protection within

Geology

The entire Land Use Plan Area is underlain with Pictou Group (LCP) sedimentary bedrock, aged approximately between 300 to 306 Ma and comprised of floodplain mudstone, fluvial sandstone, conglomerate and lacustrine limestone. The coal, shale oil and mineral rich formations of the Cumberland Group, Stellarton Formation (LCCs) is located approximately 5km south of Hidden Cove at its closest contact edge.

The layers of bedrock are compressed in a northwest to southeast orientation and folded over time in an accordion shape with a series of anticlines (upward folds) and synclines (downward folds) aligned in a northeast to southwest direction. A portion of the Boat Harbour Land Use Plan Area is over a syncline that runs from approximately Chance Harbour Lake, south corner (Grid C5, B5, B4) of the East Hills (Z5), north portion (Grid B4, B3, A3) of the Flatlands (Z4), under the East River of Pictou (Grid A3, A2), through the community of Abercrombie and the community of Central West River. The corresponding anticlines are located north from Logans Point to Plainfield and south from approximately Priestville to Plymouth. The folded tops of the anticlines have since been worn down by successive glaciers exposing the edges of layered bedrock near the surface.

Within the Plan Area, the melted ice sheets left behind a compact silt ground cover of silty till plain over the SW Slope (Z3), center of South Wetland (Z2C), corner (Grid B4, B5, C5) of the East Hills (Z5) and the

Flatlands (Z4). The entire shore surrounding Boat Harbour including the Foot Hills (Z1), NW Slope (Z2), North Wetland (Z2a), Treatment Area (Z2b), perimeter of South Wetland (Z2c) a corner (Grid B3) of the Flatlands Z4) and most all of the East Hills (Z5) is covered with hummocky ground moraine material. This till material consists of a mix of gravel, sand and mud directly released by melting glaciers.

The tills left behind by the ice within the Plan Area developed into some of best agricultural soils in Pictou County (See Appendix B, Soil Class Map). Agricultural Class 2 soils (Capable of Most Common Field Crops) are found over most all of the Reserve parcel of Fisher Grant I.R. 24G and the Boat Harbour West I. R. 37, west of the South Wetland (Z2c). Class 2 soils also extend over most all of the Flatlands (Z4), west perimeter of the South Wetland (Z2c) and the southern portion of the East Hills (Z5). Agricultural Class 3 soils (also Capable of Most Common Field Crops) covers the center and northern portions (Grid D4, D5, D5, E5) of the East Hills (Z5), most all of the SW Slope (Z3) and a corner of the Flatlands (Z4) (Grid B4). Agricultural Class 4 soils (Marginal Common Field Crops) cover all of the Foot Hills (Z1), NW Slope (Z2), and portion (Grid B2, B3, C2) of Treatment Area (Z2b), South Wetland (Z2c), SW Slope (Z3) and portion (Grid C5, D5) of the East Hills (Z5). Agricultural Class 5 soils (Capable of Hay and Pasture) cover a portion (Grid A3, A4) of the Flatlands and the central portion (Grid B2, B3) of the South Wetland (Z2c).

Much of the existing land cover over the Plan Area is forest with small isolated patch areas of infrastructure development, wetlands and open water. The forested areas most of the Plan Area have remained undisturbed or uncut for the last 50 plus years. The forested areas of the Foot Hills (Z1) have the most variety with a mix of dense and open softwood forest on the upper elevations near the community, dense hardwood on the slopes towards the water, dense mixed wood on the slopes of the peninsula connection and dense hardwood on the peninsula tops and slopes. The NW Slope (Z2) is mostly dense softwood forest with a couple of small patches of dense mixed wood along the shore (Grid C3). The East Hills (Z5) has similar land cover with mostly dense softwood with numerous patches of dense mixed wood and sparse softwood. The North Wetland (Z2a), South Wetland (Z2c) and the SW Slope (Z3) have mostly dense softwood land cover with some wetland shrub (Grid C3) in the North Wetland (Z2a). There are some dense hardwood cover patches (Grid C2, B3) within the South Wetland (Z2c) and SW Slope (Z3) as well as a patch within the Treatment Area (Z2b). There are open areas surrounding the settling pond, aeration lagoons and containment cell infrastructure as well as the western edge of the SW Slope (Z3). The Flatlands (Z4) area has mostly dense softwood land cover with patches of sparse softwood, dense mixed wood and open areas at the south corner (Grid A3, A4).

Land Analysis

In finding a match between land use types and favorable locations, the land characteristics were mapped as land factors and rated based on relevant criteria for each land use type (See Appendix C, Land Analysis Criteria Table).

Topography

Topography was derived from the Nova Scotia Topographic Database (NSTDB) contours at 5m intervals. Slopes areas of 0-5%, 5.1-10%, 10.1-15%, 15.1-20%, 20.1-25% and +25.1% were mapped, rated and displayed based on each land use criteria requirement.

Lower slopes percentages favour Regional Commercial, Active Recreation (Stadium) and Large Institutional developments. High percentage slopes prohibit Regional Commercial, Large Institutional developments as well as Residential development while favourable for both Active Recreational (Trail/Area) and Passive Recreational land uses.

Slope Aspect was also derived from the NSTDB Contours with north, south east and west slope areas mapped, rated and displayed based on each land use criteria requirement.

The compass direction of slope areas are important in the Land Analysis' Climate criteria, (See Climate).

Soils

Soils information is derived from the Agriculture Canada/Nova Scotia Province Soil Report, Soils of Pictou County.

Soils were rated based on Canada Land Inventory, Agriculture Capability Soil Classification given within soil report. With the exception of Agricultural land use, good agricultural soils are avoided with other land uses to preserve the land capability to grow food in the present and future.

Soil drainage characteristics were also mapped, rated and displayed based on each land use criteria requirement. Soil Drainage characteristics are factors in Agricultural and Residential land uses where soil drainage is important for crop production and suitability for on-site septic systems.

Hydrology

The presence of water for a land use was a factor in all Recreational and Agricultural land uses with less importance on Active Recreational (Stadium) and Commercial Green Houses. However, mapping involved placing 15m buffers on the shores of all lakes and wetlands as well as both banks of all watercourses. Where the presence of water is a favorable criteria factor, the buffers were eliminated.

Future rising sea levels were also taken into consideration in Land Uses and no future built infrastructure was placed below the 5m Contour. The predicted future sea level varies among the sources and this land use plan uses the worst case predictions and chose the 5m Contour as the limit for built structures and trails.

Climate

With the exception of Recreational land use, the compass direction of sloped areas are important for all land use types. The radiant heat and photosynthesis properties of sunlight are important factors where south exposure is most favourable for crop production and built development heating and natural lighting. The north, south, east and west slope areas were mapped, rated and displayed as per criteria for each relevant land use type criteria requirement.

South facing slopes are favourable for Agricultural land uses and built developments while east and west facing slopes are fair and north facing slopes should be avoided. Buildings of Commercial, Institutional and Residential developments also benefit from the heat and natural light available on south exposures. Cold air flows like water over the ground surface, flowing through channels and collecting in pools in the topography as cold spots or frost pockets. All frost pockets in the topography have been mapped, rated and displayed for each relevant land use type as per the criteria requirement. Agricultural use and building type land uses avoid frost pocket areas.

Vegetation

A detailed vegetation analysis of the Boat Harbour based on traditional plant species significance to the community of PLFN would be a project in itself and was not attempted in preparing this Land Use Plan. However, this plan avoids forested areas where possible for some land uses that require large areas for fields, buildings and parking areas and is reflected in each land use type criteria. Forested areas are not broken down into species type but rather as Forested (all species) and non-Forested areas. Forested areas are mapped, rated and displayed as per each land use criteria.

Significant Sites

Areas of Natural and Cultural Significance were mapped, rated and displayed as per criteria for each land use type.

This plan mapped the few areas of known/stated natural and cultural areas of significance to the community of PLFN. The Cultural areas of significance are rated as favouring land use types such Recreational or Commercial (Tourist) while prohibiting land use types involving built structures.

Population Proximity

The intersection of the Trenton Connector and Highway 348 was used as the center point of a 5km Radius that will favour land use types that require proximity to or serve a large population. The Trenton Connector/Highway 348 center point was chosen due to the large population catchment area that the intersecting roads collect and serve.

Land Analysis Results

All of the Land Analysis Land Factors were analyzed using the Grey Tone Analysis Method which was brought to prominence in the 1960's by Planner/Landscape Architect Ian McHarg as precursor to the use of GIS analysis and remains relevant today.

The land analysis method uses the clear, light grey and dark grey to rate each Land Factor directly from the Land Analysis Criteria table (See Appendix C, Land Use Criteria Table). This land use plan uses clear or lack of grey tone shading as being “Good”, light grey for “Fair” or “Moderate” and dark grey for “Poor” suitability for each land factor rating based on criteria for each land use type. Each factor layer was assigned a transparency factor and overlaid with each other factor layer relevant to each land use type.

The Grey Tone result is a map of accumulation of grey in unfavourable or unsuitable areas for each land use type and lighter or clear areas of favourable or supporting land conditions for each land use type. The Grey Tone map for each land use type marks the lighter areas as “Hot Spots” of supporting or favourable land conditions and taken into consideration in establishing Land Use Zones.

Community Engagement

The second component in finding a match between the land and the Community land use needs require establishing the Community needs.

Using the NALMA Land Use Model as a guide, there were several community engagements including members of the PLFN Boat Harbour Land Use Planning Committee and PLFN Boat Harbour Land Use Planning Working Group, Target Groups and Open Community Sessions:

Boat Harbour Planning Committee 1-July 12, 2018

Boat Harbour Planning Committee 2-July 19, 2018

Boat Harbour Planning Working Group Meeting 1-July 31, 2018

Boat Harbour Planning Working Group Meeting 2-August 09, 2018

Pictou Landing Band Staff Engagement-August 09, 2018

Pictou Landing Band Student Worker Engagement-August 10, 2018

Boat Harbour Planning Committee 3-August 29, 2018

Community Engagement Session 1- September 05, 2018.

Elder Engagement Session 1- September 07, 2018.

School Children Engagement Session 1- September 07, 2018.

Boat Harbour Planning Committee 4-October 16, 2018

Community Engagement Session 2-October 26, 2018

Boat Harbour Planning Committee 5-November 9, 2018.

PLFN Council Presentation/Review- November 19, 2018.

The Boat Harbour Planning Committee and Boat Harbour Planning Working Group were the base community representation at the beginning and throughout the community engagement phase of the Plan Model. The Committee and Working Group Members offered early land use ideas and suggestions in the areas of Economic, Social-Community and Environmental opportunities. Later sessions with Target Groups and Open Community Engagement, participants provided land use ideas more freely using an open format for land use ideas and suggestions.

All Community Engagement sessions began acknowledging that the wish list of land use ideas and services being expressed by the community may or may never happen or within our lifetimes. However, as explained, their wish list should be indicative of type of land use zones required and accommodated in future land use plans and development.

All Land use Ideas and suggestions provided during the Community Engagement Phase were grouped under preliminary Land Use Types (See Appendix C, Land Use Ideas Matched Land Use Types). The Preliminary Land Use Types were grouped again for the Land Analysis based on land requirements and Land Analysis Criteria was developed for each Land Use Type (See Appendix C, Land Use Criteria Table).

The Land Use Plan Zones were developed after the conclusion of the Community Engagement Phase and review of engagement results as well as Community Session 2 feedback:

Preliminary Land Use Types Table: Appendix A, Table2	Grouped Land Use Type Criteria Table: Appendix A, Table1	2018 Boat Harbour Land Use Plan Zones
Recreational	Recreational	Recreational
Active Recreational	Active Rec. (Field/Stadium)	RC1 (Large Open Area)
Passive Recreational	Passive Rec. (Trail/Area)	RC2 (Natural Area)
-	Passive Rec. (Scenic)	-
Agricultural	Agricultural	Agricultural
Community Plots	Community Plots	A1 (Commercial)
Commercial Crops	Commercial Crops	A2 (Community Plots)
Commercial Green House	Commercial Green House	-
Commercial	Commercial	Commercial
Commercial Regional	Regional	C1 (Regional)
Commercial Local	Local	C2 (Tourist)
Residential	Residential	Residential
	-	RS1 (Central Service)
	-	RS2 (On-Site Service)
Institutional	Institutional	Institutional
Environmental	-	IN1 (Large Community Projects)
Traditional	(See Passive Rec.)	IN2 (Community Services)
Tourist	(See Regional Commercial)	-
Repurpose Existing Building	-	-

Existing Building

There were several suggestions for the existing Steel Building located on N. S. Lands that can remain for PLFN use (See Appendix C, Land Use Ideas Matched Land Use Types). The Boat Harbour Land Use Plan utilizes the existing building as Trail Head Center for Hikers, Mountain Bikers, ATV Riders and Snowmobilers. Trails for each of these trail users converge at the existing building as shown on the Boat Harbour Land Use Plan Map (See Appendix A, Map 2).

Community Engagement Results

In addition to providing land use ideas and services suggestions, the engagement sessions provided some community land use concerns:

- Encroachment of Non-Community members on existing and proposed PLFN lands for purposes of Hunting, Logging and Mischief.
- Plug and cap old water wells
- Protect springs, streams and waters
- Restore fish and animal habitat
- Preserve large hemlocks and pines
- Protect areas of Significant Traditional Plants and Medicines
- Improve existing PLFN Sewer Outfall
- Remove derelict vehicles
- Return the land to a natural state
- Ensure having a voice on final outcomes
- Trusting that the lands and waters of Boat Harbour will be safe
- Concern for Community Member access to existing and future land resources (Hunting, Fishing, Plant Gathering and Logging)
- Concern over ability to fulfill full land use potential (Funds)

Boat Harbour Land Use Plan

From the 1st day the effluent began to flow in late 1960's into an existing watercourse, through existing wetlands, into Boat Harbour and on to the Northumberland Strait, the Community of Pictou Landing First Nation (PLFN) have held feelings of hurt, betrayal and frustration.

Since that time the community persevered in the constant presence of the effluent to eventually fight to have the existing effluent treatment system closed on or by Jan. 2020 with the relevant treatment infrastructure, lands and waters remediated prior to transfer to PLFN ownership.

PLFN realize and want to maximize the opportunities *A'se'k* (Boat Harbour) provides in a larger land base, connectivity of PLFN fee simple parcels, close proximity to larger population base and in the natural resources the lands and waters provide.

Maximizing the opportunities of *A'se'k* should involve:

Avoid further destruction or contaminating of the lands and water and any necessary development should mitigate adverse impacts on the natural environment and remediated areas.

Take full advantage of connectivity of all assembled parcels within the Plan Area with new road networks providing access to Boat Harbour, existing Reserve parcels and the Community (Fisher's Grant I.R.24) as well as Highway 348 and the Trenton Connector.

Take full advantage of the close proximity to the large population base of the New Glasgow and surrounding area. The Trenton Connector and intersection with Highway 348 serves the population centers of Trenton, New Glasgow, Stellarton, Westville and Town of Pictou as well as connectivity with a large portion of rural Pictou County

Return and maintain the tidal estuary of *A'se'k*, remediated areas and lands surrounding *A'se'k* in a natural state. Any necessary development should have a site plan and mitigate any adverse impacts on the lands and waters.

The Story of *A'se'k* (Boat Harbour) should be prominent in recreational, tourist and institutional future development projects.

Ensure the Community Members of Pictou Landing First Nation have an opportunity for input and feedback concerning future land use and development plans for *A'se'k*.

Vision Statement

“PLFN is reclaiming the lands around A’s’e’k by creating economic, social, cultural and environmental opportunities while also developing a sense of safety and sustainability”

Land Use Zones

After an extensive Land Analysis and a representative Community Engagement Phase, matches are found between Community expressed land uses, facilities, crops and services, matched with the landscape as a mix of natural and remediated areas (See Appendix A, Map2).

Recreational RC1 (Large Open Area)

Intent:

RC1 Zones typically are large areas with low slope topography that is set aside for stadium/sports field type of developments. These Zones have good access to existing and proposed road networks and are in close proximity to either a large population center or the PLFN Community.

Suggested Land Uses and Services:

Open Stadium Facilities	Sports Fields (With Lights)
Indoor Arena Facilities	Indoor Rink
Indoor Facilities	Indoor Pool
	Fitness Center
	Laser Tag
	Basketball Court
	Gymnastic Facilities
Small Confined Outdoor Facilities	Drone Obstacle Course
	Archery Range
	Water/Splash Park
	Playground

Large Confined Outdoor Facilities	Salt or Freshwater Outdoor Rink ATV-Motocross Park Pond Hockey Venue
Expansive/Open Facilities	Designated ATV Trails Bicycle/Mountain Bike Trail (Shared with Hiking) Golf Course

Recreational RC2 (Natural Area)

Intent:

RC2 Zones are large natural areas set aside for low impact passive/scenic recreational use. RC2 Zones also preserve land in a natural state and hold in reserve for Future Development.

Suggested Land Uses and Services:

Small Outdoor Areas	Boat Launch/Ramp
Expansive/Open Facilities (Large Outdoor Areas)	Designated ATV Trails Hiking Trail (Shared with Bicycle/Mountain Bike Trail) Designated Hunting Areas with Scheduled Times Fishing Mi'kmaq Experience Camping/Trails Wetland Boardwalks and Watercourse Foot Bridges
Large Confined Outdoor Facilities	Develop Moodie-Lighthouse Beach Develop Boat Harbour Outlet Beach Picnic Park Develop Inner Harbour Swim Area Campground Marina Zip Line/On-Tree Park Snow Board/Sledding Park Interpretive Trail Cottage Rentals

Zoo/Wildlife Park
Powwow Grounds

Agricultural A1 (Commercial)

Intent: A1 Zones are large areas covered in good agricultural soils set aside for cultivation of commercial crops. These areas of good agricultural capabilities are reserved for future agricultural use and food security.

Suggested Land Uses and Crops:

Large open Area:	Cranberries
	Orchards
	Christmas Trees
	Commercial Green House
	Aquaculture (Mussels/Clams)
Small Open Area:	Community Garden Plots
	Traditional Gardens

Agricultural A2 (Community Plots)

Intent: A2 Zones are intended for Community use in cultivating small garden plots or for personal use as well as cultivating and harvesting traditional plants. A2 Zones are either covered in the best agricultural class soils or offer a variety of natural conditions for traditional plants and are in close proximity to the Community.

Suggested Land Uses and Crops:

Large open Area:	Orchards (Fruit, White and Black Ash)
Small Open Area:	Community Garden Plots
	Traditional Gardens

Secure Food Garden Plots

Commercial C1 (Regional)

Intent: C1 Zones are large areas of low slope topography that are strategically located near a large population and existing and proposed road networks to maximize commercial opportunities. C1 Zones are set aside for future large commercial developments requiring large areas of parking.

Suggested Land Uses and Services:

Small Indoor Areas (Strip Mall)	Electric Car Charge Station
	Food Services/Restaurant
	Mi'kmaq Regalia Supply Store
	Traditional Crafts Market
	Canteen Service
	Chips, pop and Candy Store
	Arcade
	Hair Salon
	Carpet and Flooring Supply
Large Indoor Areas (Big Box/Stand Alone)	Bingo Hall
	Grocery Store
	Indoor Theater/Stage
	Gamming/Casino
	Bowling
	Movie Theater
	Gas Bar Convenience
	Farm Market
	Auto Repair Service
Small Outdoor Areas	Drone Obstacle Course
	Mini Golf
	Outdoor Stage/Theater
Large Outdoor Areas	Business Park
	Industrial Park
	Fish Plant

Sawmill

Commercial C2 (Tourist)

Intent: C2 Zones are typically areas of high natural and scenic quality set aside for low impact commercial tourist/eco-tourism developments. C2 Zones have good access to Highway 348 and proposed road networks while remaining isolated from other developments to maintain scenic/natural qualities.

Suggested Land Uses and Services:

Small Indoor Areas

Traditional Crafts
Mi'kmaq Regalia Supply Store

Large Indoor Areas

Mi'kmaq Experience Lodge

Small Outdoor Areas

Traditional Village Encampment (Re-enactment)
Sacred Fire/Story Telling
Sweat Lodge
Boat Launch/Ramp
Canoe/Kayak Rentals

Large Outdoor Areas

Mi'kmaq Experience Camping/Trails
Marina
Zip Line/On-Tree Park
Snow Board/Sledding Park
Picnic Park
Hiking/Mountain Bike Trail
Wetland Boardwalks/Watercourse Foot Bridges)

Interpretive Trail

Fishing

Campgrounds

Cottage Rentals

Zoo/Wildlife Park

Residential RS1 (Central Service)

Intent: RS1 Zones are serviced by central municipal sewer system and may also be serviced by central domestic water supply. Individual lot sizes within RS1 Zones are typically in the 0.50 acre (0.20 hectares) range.

Suggested Land Uses and Services:

Single Family Dwellings

Multi-Unit Dwellings

Residential RS2 (On-Site Services)

Intent: RS2 Zones have On-Site Septic systems and well water domestic water supply. Lot sizes within RS2 Zones range in the 1.50 acre (0.61 Hectares) for a 1 Septic system to 1 lot scenario. Larger lot sizes are possible with engineered communal septic systems designed to handle more than a one dwelling unit depending on the design and drainage conditions.

Suggested Land Uses and Services:

Single Family Dwellings

Institutional IN1 (Large Community Projects)

Intent: IN1 Zones are large areas of low slope topography reserved for large community development project or activity intended to serve the community. These areas are either located adjacent compatible Zones such as Recreation RC1, Recreation RC2 and Commercial C1 IN1 Zones have good access to existing and proposed road networks and are in close proximity to a large population to help support some developments and activities.

Suggested Land Uses and Services:

Large Indoor Areas (Stand Alone)	New School Community Center
Large Outdoor Areas	Outdoor Learning Center Fire-Rescue Tower Training Area Land and Sea Rescue Training Center Fun Zone

Institutional IN2 (Community Services)

Intent: IN2 Zones are areas set aside for community services, facilities and infrastructure necessary for the day to day operation of the Boat Harbour Lands and the Community of PLFN. These areas are either located adjacent existing and proposed road networks and compatible Zones such as Recreation RC1, Recreation RC2 and Commercial C1, or close to existing Community population.

Suggested Land Uses and Services:

Small Indoor Areas	Indoor Theater/Stage
Large Indoor Areas (Stand Alone)	New School Community Center

Small Outdoor Areas

Cemetery Expansion

Wharf/Boat Launch

Inner Boat Harbour Dock Facility

Playground

Activity Park/ Fun Zone

Large Outdoor Areas

Outdoor Learning Center

Fire-Rescue Tower Training Area

Land and Sea Rescue Training Center

Public Works Depot

Review and Acceptance of Land Use Plan

The Proposed Draft land Use Plan (Map) was presented to PLFN Council on Nov. 19 for review.

Pending any comments, suggestions or changes provided by PLFN Council, the Boat Harbour Plan will be finalized for acceptance by Band Council Resolution or any other directive that endorses the A'se'k (Boat Harbour) Land Use Plan for Implementation.

The Final A'se'k (Boat Harbour) Land Use Plan documents should be made available to the Community via community newsletter, web site, social media or other methods deemed appropriate.

Implementation

The Community Engagement Phase of this Plan produced a wide variety of suggested land uses and services. The wish list used to determine the more general land use types to accommodate most all of the Community suggestions. Not all of the Community expressed suggestions and ideas will become reality but all should be evaluated as individual or grouped projects that will require community resources, financing, external funding or entrepreneurship to fulfill.

The NALMA model suggests that each suggestion and idea be evaluated as projects having their own budgets, action plans with work plans. Each potential project should be evaluated using NALMA's SMART approach:

Specific	State exactly what is to be achieved.
Measurable	Can it be evaluated objectively?
Attainable	Given the land available, is it feasible?
Realistic	is it possible with existing resources?
Timeline	Can it be accomplished in an acceptable time frame?

Implementation requires a team approach to be successful. Relevant departments, staff, Council and the whole Community must have awareness and acceptance of what the A'se'k (Boat Harbour) Land Use Plan strives to accomplish. It is hoped that the additional lands, waters and resources of A'se'k will stimulate ideas that follow through to development projects. It is important that departments coordinate as to not overlap projects or compete for same funding sources. The necessity to coordinate also applies to Council Portfolios, staff, volunteers and the business community.

Future decisions concerning the include A'se'k (Boat Harbour) Land Use Plan include:

- Policy and procedures for access and use of the Plan Area Lands by community members.
- Drafting and adoption of Land Use By-laws
- Procedures for resolving land use disputes
- Procedures for Amendments to the Land Use Plan
- Procedures for Compliance Monitoring
- Assigning responsibilities for administration of the Land Use Plan
- Timelines for Land Use Plan to come into effect

Monitoring and Evaluation

The A'se'k (Boat Harbour) Land Use Plan fully implemented should stimulate several separate but hopefully coordinated projects with each typically having its own project team, goals, funding, work plan and timelines. Each of these projects ideally have their own monitoring procedure measure of success.

The A'se'k (Boat Harbour) Land Use Plan should be reviewed and update every 5 years to review the Plan relevance with Community priorities and to review what is working and what is not. The A'se'k (Boat Harbour) Land Use Plan measure of success could be the number of individual projects in progress,

completed, successes and failures as well as lessons and best practices learned. Annual reviews of current projects are recommended throughout the Monitoring Phase of the Land Use Plan.

Compliance Monitoring involves inspections to determine if the intent of the Land use Plan is being observed in actual land uses, land development and serves the Community. Enforcement requires sound monitoring procedures in-place, the ability to guide, restrict and stop activities inconsistent with the Land Use Plan. It is important that PLFN have the resources in funding and technical capacity to adequately carry out inspections.

The Land Use Plan is considered a living document that responds to community expressed Land use needs and priorities. The land Use plan will improve over time with periodic reviews that ensure:

- The Plan remains relevant
- Decision-making improves over time
- Allows for community engagement and involvement
- Provides mechanisms to address misunderstandings, controversy and Community concerns
- Allows for revisions/amendments and improvement of the Plan.

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Appendix A
New Land Use Plan Maps

Map 2: Boat Harbour Land Use Plan Large Format

Map 2: Boat Harbour Land Use Plan 11 x 17 Format

Appendix B
Land Analysis

Boat Harbour Area Agricultural Soil Class
Land Analysis Results

Appendix C

Tables and Posters, Community Engagement

Land Use Ideas Matched Land Use Types

Land Use Ideas Matched Land Use Types-Overriding Criteria

Boat Harbour Land Analysis Criteria

Concept Posters and Community Session Voting Results

Appendix D

Existing By-laws and Management Plans

Pictou Landing First Nation-1999 Zoning By-law No.1

Pictou Landing First Nation-Forest Management Plan 1999

Annex 3.2

Analysis of Indigenous Economic Opportunities – Group ATN



Pictou Landing
First Nation



Final Report Boat Harbour Remediation Project

An Analysis of Indigenous Economic Opportunities

Submitted by:

Group ATN Consulting Inc.

Date: February 18, 2019



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February 18, 2019

Ms. Michelle Francis-Denny
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BoK 1X0

Sent via e-mail to: Michelle.f.d@plfn.ca

RE: Boat Harbour Remediation Project - An Analysis of Indigenous Economic Opportunities

Dear Ms. Francis-Denny,

Group ATN Inc. (GATN) is pleased to provide the Final Report on the **Boat Harbour Remediation Project - An Analysis of Indigenous Economic Opportunities**. We recognize the importance of this Study to Pictou Landing First Nation (PLFN) on so many levels, including advancing the Community's interest in optimizing the economic, social and environmental benefits arising from the remediation project.

The Community has endured the environmental blight associated with Boat Harbour over more than five decades. From a social justice perspective, it is right and important for the people and Community of PLFN to leverage and optimize the full range of benefits that should arise from the remediation of this site.

This Study has focused on analyzing these opportunities, finding areas where entrepreneurial development, training and capacity building can benefit PLFN Community members and businesses, provide employment and help spur professional careers in areas related to the project activities, including science. The analysis also considers the legacy dimensions of the remediation project, including future land use and related opportunities a renewed Boat Harbour will present to the Community.

The Report documents the progress that has been made during the Pilot and Bench Scale Phase of the Project and presents a Strategic Action Plan – short- medium- and long-term – to guide activities during the expected 5-7-year actual remediation project.

Our focus for this assignment has been to offer practical options and solutions based on evidence and analysis. This approach has been refined through collaboration with the Project Steering Committee, the Project Lead, the PLFN leadership team and with Provincial Officials managing the remediation project.

This final Report fully addresses the deliverables specified in the *Request for Proposals*. The GATN Team has also provides some value-added items, including a logic model to underpin the detailed Strategic Action Plan and overall project management strategy. We have also included an extensive data analysis package with a decision tree component, flexibly designed to be kept updated over the life of the remediation project.

Throughout this assignment, our Team has been appreciative of the input and contribution of many stakeholders including Chief and Council, the Project Steering Committee, Nova Scotia Lands Officials, staff of Indigenous Services Canada and countless other key contacts who generously gave their time, insights and advice. We have particularly enjoyed working with you and your PLFN Team.

Sincerely,

<Original signed by>

Ron L'Esperance
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Enclosed: (PDF) copy of our draft Final Report

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ACKNOWLEDGEMENTS

Throughout this assignment, our Team has been appreciative of the input and contribution of many stakeholders including Chief and Council, the Project Steering Committee, staff of Indigenous Services Canada, Provincial Officials of Nova Scotia Lands and countless other key contacts who generously gave their time, insights and advice. The Group ATN Team acknowledges the steadfast help and assistance of the following throughout the completion of this Project:

- Ms. Michelle Francis-Denny, PLFN Project Lead
- Ms. Debbie Dykstra, PLFN Economic Development Officer (EDO)
- Ms. Heather Mills, PLFN Native Employment Officer (NEO)
- Ms. Sheila Francis, PLFN Director of Education
- Mr. Barry Francis, PLFN Director of Economic Development and Lands
- Mr. Ken Swaine, Nova Scotia Lands, Program Director - Boat Harbour
- Ms. Angela Swaine, Nova Scotia Lands, Senior Project Manager - Boat Harbour; and
- Staff of Indigenous Services Canada

PROJECT HIGHLIGHTS

Introduction

Pictou Landing First Nation (PLFN) has a long-standing history of concern related to the effluent flowing from the Kraft Pulp Mill to the lagoon, known as A'se'k. Historically, for PLFN and its people, A'se'k was a gathering place for foraging, gathering, fishing, practicing traditional knowledge and skills and for recreation and spiritual enjoyment.

PLFN led the negotiations with the Province of Nova Scotia to close the treatment facility and return Boat Harbour to its former status as a tidal estuary. Through the remediation project PLFN's objective is to see A'se'k restored to enable the Community to re-establish its relationship with the water, the land and the traditional uses the Community historically enjoyed at this site.

This Study

Group ATN Inc. was contracted to complete a Study on the ***Boat Harbour Remediation Project - An Analysis of Indigenous Economic Opportunities***. This is the Final Report on the results of our Study. It addresses the deliverables outlined in the *Request for Proposals* (RFP).

This is a complex, multi-phase project, made more so by the history of environmental degradation and the long-standing impact that it has had on the Community.

Notwithstanding the challenges that may impact the start of the actual remediation process, this Study has focused exclusively on examining the full range of possible benefits that could accrue for PLFN from the project.

The timing of the completion of this Study is fortuitous. Coming near the completion of the first phase of the remediation project, much has been learned. Arising from the outreach and engagement undertaken with key stakeholders during this Study, those lessons learned are reflected in this Report. Considering that the remediation project is a long-term undertaking, these lessons learned will be helpful in enabling all parties to address the findings arising from this Study.

Report Features

This Report includes the following:

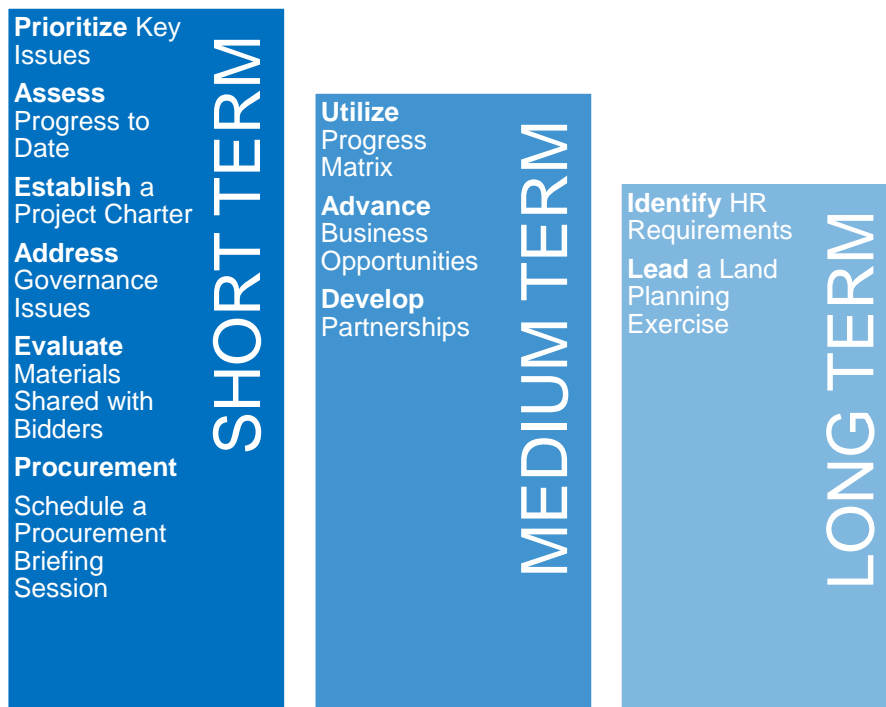
- Key findings arising from the primary and secondary research and the stakeholder

engagement process undertaken during the Study. This analysis is linked to the key milestone activities identified in the Project RFP and outlined above.

- A detailed Project Matrix addressing all remediation project phases commencing with the near-complete bench scale and pilot scale testing phase and progressing through to the later future land use phase once the actual remediation has been completed and Boat Harbour has been restored to its former status as a tidal estuary.
- A strategic action and implementation plan designed to optimize the full range of social, economic and environmental benefits associated with the project.
- A proposed performance management framework linked to a Logic Model developed by GATN to underpin project implementation; and
- A concluding statement.

Strategic Action Plan

The proposed strategic action plan is designed to support the implementation process, while enhancing outcomes and optimizing social, economic and environmental benefits for PLFN. The following Strategic Action Plan is an abbreviated version of the plan that appears in **Section 4.2** of this Report. It is envisioned that this plan will also take the form of a stand-alone document that would be regularly utilized and maintained evergreen.



SHORT TERM (3-6 months)

Prioritize Key Issues

Use this Report, associated tools and the analysis offered to prioritize key issues and areas for follow up with Provincial Officials. Key issues identified during this Study are addressed in Section 2 – Key Findings

Assess Progress to Date

Arrange a review meeting between the two parties to assess progress to date, to review successes and challenges and address any issues arising from experience to date.

- Provide an advance agenda to which both parties contribute would help to ensure an effective review and discussion
- Record a summary of decisions
- Implement mutual agreements reached during this meeting within a specified timeline

Establish a Project Charter

Based on experience to date, formally establish a *Project Charter* to underpin and formalize the scope of PLFN's ongoing management and stewardship to optimize benefits from the remediation project.

- Clarify objectives and roles and responsibilities
- Address governance issues and resource requirements
- Include quantifiable targets linked to the performance measurement framework outlined in the Logic Model addressed in Section 5
- Review/adjust the Charter periodically as required

Address Governance Issues

Address governance issues associated with PLFN's ongoing management of the benefits arising from the remediation project in the *Project Charter*

- Review the structure and roles/responsibilities of PLFN Team members based on knowledge gained and requirements identified in the experience to date during the Bench Scale and Pilot Scale Testing phase of the Project
- Develop an organizational chart [we have provided a model in this Report for review and approval]
- Formalize the PLFN Team structure for continuity of management and oversight during the expected life of the remediation project
- Review resource requirements to address enhanced management of work experience
- Advance performance management by developing annual business/operational plans and evaluation of results

Evaluate Materials Shared with Bidders

Evaluate the materials currently shared with bidders to enhance their understanding of the PLFN value proposition and address the need for clear and concise information on working with PLFN

- Develop a concise backgrounder that includes information on the PLFN Team and how it can assist employers hiring PLFN members
- Include practical information for employers on the services available from the PLFN Team
- Review PLFN involvement in the assessment of Aboriginal content/benefits within bids

Schedule a Briefing Session on Procurement Rules and Opportunities

Schedule an in-depth briefing on procurement rules associated with the Boat Harbour Remediation Project involving PLFN Officials and Provincial Officials (Nova Scotia Lands and Internal Services Department). This session would be directed at:

- Deepening PLFN's understanding of the procurement rules associated with the Remediation Project
- Enhance understanding of the opportunity environment within the Remediation Project for supply arrangements that might either leverage existing PLFN services or provide a basis to develop new services and capacity

MEDIUM TERM (6-12 months)

Utilize Progress Matrix

Use the Project Matrix, which has been designed as a living document, to take advantage of the opportunities for PLFN across all project phases

- Develop a training plan/strategy based on the data within the Project Matrix
- Utilize the decision-tree analysis within the Matrix
- Redesign how work experience / job placement is to be undertaken to increase 'job readiness' of Community members
- Monitoring in-scope projects and negotiate internships for PLFN members as contracted research programs evolve and new ones are advanced

Advance Business Opportunities

Advance possible business opportunities aligned to the requirements of the remediation

project and which would be sustainable beyond the project completion including:

- An earth-moving and construction company
- An air/water monitoring environmental servicing company

Develop Partnerships

Consider partnerships with other First Nations and private sector to amplify the results of this large and complex project

LONG TERM (12-36 months)

Identify HR Requirements

Pending the results of the environmental assessment(s) and Community decisions, consider assuming the LTMM contract as a potential twenty-five-year management opportunity

- Begin advance planning with Provincial Officials to address the specific requirements for this Phase
- Identify HR and skill-set requirements and developing a training plan to enable PLFN members to assume these roles

Lead a Land Planning Exercise

Lead a land planning exercise to refine the final land use report plan

- Identify funding requirements
- Define the timeline and any phasing strategies
- Ensure Community consent for a final approved land use plan

1 INTRODUCTION

Group ATN Inc. (GATN) is pleased to present the Final Report on the results of our work on ***the Boat Harbour Remediation Project - An Analysis of Indigenous Economic Opportunities***. This Report addresses the deliverables outlined in the *Request for Proposals* (RFP).

GATN recognizes the importance of this Study to Pictou Landing First Nation (PLFN) on so many levels, while advancing the Community's interest in optimizing the economic and social benefits arising from the remediation project.

The Community has endured the environmental blight associated with Boat Harbour over more than five decades. From a social justice perspective, it is right and important for the people and Community of PLFN to leverage and optimize the full range of benefits - social, economic and environmental - that should arise from the remediation of this site.

This Study is focused on analyzing these opportunities, finding areas where entrepreneurial development, training and capacity building can benefit PLFN Community members and businesses, provide employment and help spur professional careers in areas related to the broad range of project activities, including science. There is also consideration of the legacy dimensions of the project, including future land use and the future land use opportunities a renewed Boat Harbour will present to the Community.

In their initial consideration of the opportunities the Remediation Project presents, the PLFN Chief and Council have explicitly defined that associated benefits should flow first to the PLFN Community, next to other First Nation collaborators and, finally, through partnerships with other businesses and contractors, in that order.

In completing this assignment, GATN's focus has been on offering practical options and solutions based on evidence and analysis. This approach has been refined through collaboration with the Project Lead, the PLFN leadership team and with Provincial Officials managing the remediation project.

Throughout this assignment, our Team has been appreciative of the input and contribution of many stakeholders including Chief and Council, the Project Steering Committee, Nova Scotia Lands Officials, staff of Indigenous Services Canada and countless other key contacts who generously gave their time, insights and advice. We have particularly enjoyed working with the PLFN Team and Ms. Michelle Francis-Denny as the key Project Lead.

1.1 The PLFN Community

Located at the mouth of Pictou Harbour on the Northumberland Strait of Nova Scotia, Pictou Landing First Nation (PLFN) comprises five reserves. The only populated reserve is Fisher's Grant which is adjacent to Boat Harbour - the former tidal estuary which has been part of the effluent treatment system for the current Paper Excellence Pulp Mill at Abercrombie Point.

PLFN has a long-standing history of concern related to the effluent flowing from the Kraft Pulp Mill to the lagoon, known as A'se'k. Historically, for PLFN and its people, A'se'k was a gathering place for foraging, gathering, fishing, practicing traditional knowledge and skills and for recreation and spiritual enjoyment.

PLFN's Iconic Health Centre



PLFN led the negotiations with the Province of Nova Scotia to close the treatment facility and return Boat Harbour to its former status as a tidal estuary. This undertaking is reflected in the *Boat Harbour Act*, passed by the Nova Scotia Legislature in 2015, and is the basis on which this remediation project is being advanced.

PLFN's objective is to see A'se'k restored to enable the Community to re-establish its relationship with the water, the land and the traditional uses the Community historically enjoyed at this site.

The anticipated environmental changes resulting from carrying out the Project on PLFN lands are positive, as the remediation of Boat Harbour may enable a return to traditional recreation, fishing, hunting and gathering, as well as for physical, mental, spiritual and emotional purposes by the Mi'kmaq.

Project Description
Boat Harbour Remediation Project
Nova Scotia Lands Inc.

1.2 Background – Project Focus

The history of the Boat Harbour Effluent Treatment Facility (BHETF) is well-known. It was constructed in 1967 and reconfigured several times since its construction. The use of the BHETF for the reception and treatment of effluent from the Kraft Pulp Mill must cease no later than January 31, 2020, in accordance with the afore-mentioned *Boat Harbour Act*.



Boat Harbour was originally a tidal estuary connected to the Northumberland Strait. It is presently a closed effluent stabilization basin, operating under a lease agreement with the Province by the Pulp Mill owner. Once operations have ceased, the Province will remediate Boat Harbour and the lands associated with the BHETF, while restoring Boat Harbour to its original status as a tidal estuary. This work will include the removal of the existing causeway along Highway 348. The dam which closes off Boat Harbour will also be removed and replaced with a bridge permitting boat access to Boat Harbour.

1.2.1 Project Components

The main components of the remediation project include the following phases and activities:

- **Bench Scale and Pilot Scale Testing** has been underway for two years. Its focus is on the assessment and determination of applicable treatment methods. The pilot scale testing is ongoing to refine treatment methods, production rates and potential emissions during remediation. Detailed design of the remedial solution is targeted for completion mid-to-late 2019. Due to unusually harsh weather in late 2018, activity in Boat Harbour had to be suspended for the winter period but will resume in the spring of 2019.
- **The Remediation Construction Phase** is expected to require 5-7 years and will tentatively commence in 2020. This phase incorporates a broad range of activities including:
 - Removal, treatment and disposal of impacted sediments/sludge and dewatering effluent from the former effluent ditch, twin settling basins, ASB and Boat Harbour stabilization lagoon.
 - Removal, treatment and disposal of impacted sediments/sludge in the natural wetlands and estuary.
 - Removal, treatment and disposal of impacted soil and surface water.

OPPORTUNITY SCAN

During the **Bench Scale and Pilot Scale** Testing PLFN has been actively working to:

- Enhance Community understanding of the Project
- Prepare an asset map/inventory of Community skill-sets; and
- Facilitate job placement and training; and
- Plan for the next phases

As the longest and most labour-intensive phase, the prospective **Remediation Construction Phase** offers the opportunity for PLFN to:

- Optimize job creation
- Align training with jobs linked to this phase, including professional training
- Foster new business development and entrepreneurship within PLFN

- Use and closure of the existing waste containment cell; and
- Decommissioning of BHETF infrastructure including the pipeline, causeway, dam and support facilities.

This phase will include two procurements – one for the actual remediation and the second for construction oversight and management. The latter procurement will be relatively small. Some describe this phase as a large earth-moving project - one which will extensively involve heavy equipment. The timing of this phase may be impacted by other factors including whether a Federal environmental impact assessment is to be undertaken.

- **Bridge Construction** will be undertaken near the end of the project. It involves the restoration of Highway 348, including construction of a bridge in the location of the existing causeway to permit boat access.
- **Long Term Maintenance and Monitoring (LTMM)** is expected to continue for 25 years. The project will involve the expansion of an existing on-site containment cell to accept sludge/sediment, construction and demolition (C&D) material and industrial waste generated as a result of the remediation project. Solid waste generated during remediation will be disposed of in the existing 6.7-hectare disposal cell. Vertical expansion of the disposal cell will be required to accommodate the waste. The disposal cell will be further modified to enhance the leachate collection system and facilitate placement and dewatering of the sludge/sediment in a one-step operation. This site will need to be managed and monitored on a long-term basis.
- **Future Land Use** – Looking beyond the completion of the remediation project, a future land use study has been commissioned by a First Nations company – Membertou

OPPORTUNITY SCAN

While not all Community members favour the on-going presence of the containment cell, **the LTMM Facility** offers a long-term management opportunity for PLFN.

The **LTMM** is expected to have a 25-year life-span and is estimated to cost \$13M over that period, requiring up to 5 FTEs on an ongoing basis.

The **Future Land Use** Phase offers PLFN a tremendous opportunity to not only renew its relationship with Boat Harbour and environs, but to also create social and economic development opportunities that can have a lasting impact on the Community. These include opportunities to promote Mi'kmaq tourism (one of the fastest growing tourism segments nationally), for recreation, for authentic Mi'kmaq events such as a Mawio'mi and to enhance existing Community businesses including those associated with the fishery.

Geomatics. It will offer options on how PLFN might leverage the renewed Boat Harbour as a social and economic development opportunity generator, while improving the health and aesthetics of the Community.

As part of the remediation project, a Boat Harbour Environmental Advisory Committee has been established. Scientific advisors from 4 universities [ST. Francis Xavier, Dalhousie, Acadia, and Cape Breton University] to advise on the remediation project. There is a diversity of research projects underway. As an example, researchers at the universities have conducted research and taken core samples on sediment and land to determine how much contamination is present, and how deep does it go. Another study is currently being conducted on lobsters as well.

1.3 Key Project Deliverables

The overall focus of this assignment and the key deliverables are to achieve the following:

- Develop a planning document and implementation strategy designed to increase Indigenous participation in the economic opportunities that can occur because of the Boat Harbour Remediation Project; and
- Identify short, medium- and long-term economic opportunities and an accompanying strategic action plan and recommendations for activating these opportunities beneficially for PLFN and, secondarily for other Mi'kmaq businesses and individuals.

Key milestone activities associated with this Study include:

- An analysis of short, medium- and long-term economic opportunities arising from the remediation project.
- Preparation of a Community inventory of assets/training plans/gap analysis.
- Consideration of business models to assist Pictou Landing First Nation maximize Indigenous participation in the remediation project and future site use.
- Development of a strategic action plan to activate opportunities; including but not limited to planning for succession, recruitment, training, private business and band owned businesses.
- Analysis of procurement rules in relation to potential opportunities.
- Decision tree to assist with selecting opportunities with advantageous outcomes; and
- Development of a performance measurement framework designed to measure and track project performance and outcomes.

1.4 Organization of this Report

This report is organized as follows:

- **Section 1** (above) introduces the consulting assignment providing context for the overall project.
- **Section 2** identifies the key findings arising from the primary and secondary research and the stakeholder engagement process undertaken during the Study. This analysis is linked to the key milestone activities identified in the Project RFP and outlined above;
- **Section 3** presents the Project Matrix which offers an opportunity analysis across all project phases commencing with the near-complete bench scale and pilot scale testing phase and progressing through to the later future land use phase once the actual remediation has been completed and Boat Harbour has been restored to its former status as a tidal estuary.
- **Section 4** offers a proposed action and implementation plan.
- **Section 5** provides a performance management framework linked to a Logic Model developed by GATN to underpin project implementation; and
- **Section 6** features a concluding statement.

2 Key Findings

2.1 Introduction

Throughout the commissioning of this Study, the GATN team worked closely with the Project Lead, Ms. Francis-Denny, the internal PLFN Team including Economic Development Officer (EDO), Ms. Debbie Dykstra, the Native Employment Officer (NEO), Ms. Heather Mills, the Director of Education, Ms. Sheila Francis and the Director of Economic Development and Lands, Mr. Barry Francis along with the Provincial Officials (Mr. Ken Swaine and Ms. Angela Swain) responsible for managing the remediation project. Ongoing working meetings were held throughout the Study, to gather data, understand perspectives, test ideas, seek clarification and assess progress.

This is a complex project, made more so by the history of environmental degradation and the long-standing impact that it has had on the Community. Because of the manner in which the Project developed over a fifty-year period, the level of trust within the Community continues to be a factor.

Notwithstanding the challenges that may impact the start of the actual remediation process, this Study has focused exclusively on examining the full range of possible benefits that, skillfully managed and led, could accrue for PLFN from the project.

Moreover, this planning is taking place at an opportune time. The Bench Scale and Pilot Scale Testing has been ongoing for two years. During that time, both PLFN and Provincial officials have had an opportunity to work together. There has been extensive Community engagement throughout. In addition, by focusing on the proposed design of the overall remediation project, project proponents and PLFN both have a more precise understanding of how the project is likely to unfold and greater insight into the opportunities that are expected to be available across all phases of the project.

As the project has advanced through this first phase and before the full-scale remediation process begins, stakeholders with whom the GATN Team engaged throughout this Study – including both provincial officials and the PLFN Team – recognize the importance of opening a dialogue to examine how the process has worked to date and to assess lessons learned and their implications as the actual remediation project unfolds. Taking this collaborative approach is highly recommended and has been built into the proposed strategic action plan.

This Section addresses key findings related to the deliverables associated with the Project.

2.2 Assessment of Progress to Date and Future Considerations

The Bench Scale and Pilot Scale Testing Phase has led to the development of the detailed design of the remedial solution. This has been refined and issued as a Project Description which has been accepted by both Federal and Provincial regulators in their consideration of the environmental assessment process.

Beyond its importance to provincial officials in determining the best path forward for the actual remediation project, the bench scale and pilot scale testing phase has also been a very useful period for the PLFN Team. It has enabled Chief and Council, the Project Lead and the PLFN Team to:

- Define their vision for the legacy dimensions of the project.
- Consider and outline key objectives related to procurement preferences to optimize benefits to PLFN; and
- Focus on how best to beneficially manage this engagement and stewardship process for the PLFN Community over the life of the actual remediation project and, subsequently, in terms of the future use of these lands to optimize social and economic benefit for the future use for the Community.

Extrapolating from the specifics of the remediation proposed plan, PLFN, in collaboration with Provincial officials, has also made significant progress in understanding opportunities for the Community associated with the remediation project across all phases. This assessment process will undoubtedly continue.

It has also contributed to learning and understanding within the PLFN Team in terms of the nature, type and level of supports required to optimize opportunities for Community members on the remediation project. This has led to consideration of how the PLFN Team might be organized going forward to support optimization of benefits and positive outcomes for the Community.

As noted, with this experience, there is now an opportunity for both the PLFN Team and Provincial officials to also take stock and to determine how best to animate and support the engagement process to ensure continued positive outcomes for the Community going forward.

2.3 Specific Findings Arising from this Project

The findings arising from the progress made during the Bench Scale and Pilot Scale Testing Phase are presented as a means to assist both parties in the 'taking stock' process and in setting the stage for the ongoing collaboration across all remediation phases. The issues identified in this Section also inform the development of the strategic action plan.

Findings include:

- **Accomplishments during the first phase** - Our examination of project planning to date included an extensive document review. Arising from this we can conclude that the PLFN Team, with direction from Chief and Council has established the following:
 - A vision for what the remediation project should encompass to optimize benefits to the PLFN Community. This vision incorporated the following:
 - Considering the Community's desired procurement approach and advancing ideas in respect to how it might be implemented.
 - Extensive Community engagement.
 - Working towards capacity building and the desire for meaningful and sustainable work experience in all opportunities associated with the remediation project.
 - Consideration of using the remediation project as a vehicle to support the development of business opportunities (Band-owned, Community member-owned or developments with another First Nation or non-Indigenous partner) that can be sustained as a legacy opportunity, surviving the completion of the remediation project. Business opportunities identified include the development of a construction company with earth-moving equipment/machinery and/or an environmental monitoring company (air and ground water monitoring); and
 - Initial thinking on partnership development, including with the private sector and other First Nations communities.
 - During the pilot and bench scale phase, in anticipation of opportunities that might become available for Community members on site, the PLFN Team sponsored several Community members in related training areas. This was an important learning experience for PLFN. It involved preparation of safety-trained labourers (10 Community members) and training within the METI Environmental Health and Safety Technician Program (2 Community members). The lessons learned in relation to the placement of PLFN members into training and the challenges associated with securing work experience are addressed below.
 - Public engagement within the PLFN Community has been an important aspect of this first phase. There is an established Community Liaison Committee. The meetings are frequent. There have also been opportunities for the PLFN Team to meet with potential contractors and profile the PLFN vision for enhanced local economic benefits and impacts for the Community. Beyond the importance of

keeping the Community informed of project-related developments through these meetings and newsletters, building trust is an important aspect of this engagement process.

- The PLFN Project Lead, the EDO and NEO also completed an inventory of skills which has assisted the GATN team in the analysis and opportunity identification phase, including development of a gap analysis. This helped identify areas of prospective labour demand and associated training where the opportunity for employment of PLFN Community members is present both on the remediation project and in the context of longer-term career opportunities once the remediation is complete. A comprehensive analysis is presented in **Section 3**.

This analysis also included efforts led by the PLFN Director of Education who was able to identify occupational areas that PLFN post-secondary education students are pursuing and to provide information to up-coming graduates in respect to career opportunities and career choice arising from potential opportunities associated with the remediation project. This also included consideration of possible placement of PLFN students within the numerous research initiatives that are underway with several universities.

- **Anticipation of where the greatest benefits lie for PLFN** – An important focus of the GATN Team was to examine the opportunity for PLFN Band members in each of the phases associated with the overall remediation process. This included an extensive analysis of the number and type of jobs that would be available throughout the actual project and beyond. Intuitively, one might conclude that the greatest number of jobs would logically be in the actual remediation phase. On careful examination and through working with both the PLFN Team and Provincial officials, it is apparent that the actual number of jobs in the remediation phase is not as extensive as one might initially think, and some of these jobs are highly specialized¹. Notwithstanding, there are clearly job opportunities for PLFN members in this phase. **Section 3** includes an extensive analysis of these jobs, their number and frequency across phases of the project, a decision tree to help qualify their viability as job targets for PLFN members and provision of linkages to

¹ Our analysis has identified a total of 78 positions, 486 person-years of employment (assuming each position is 2,000 hours), and a combined total wage expenses estimated at just under \$24 million.

the *National Occupational Classification*² (NOC) to outline the qualifications and training requirements associated with these jobs.

Beyond the remediation phase, the greatest benefits to PLFN arising from the overall project likely lies in the operation of the Long-Term Maintenance and Monitoring Facility (LTMM) and in the reconfiguration of the restored lands for future economic, recreation and social use. An important caveat to the LTMM facility is that the Community has continuing concerns related to the presence of this facility on their lands, a factor that may be addressed through the environmental assessment process.

- **Lessons learned during the first phase** – Both Provincial Officials and the PLFN Team have learned a great deal about the local economic benefits process through the first phase of the project. These lessons include:
 - The need to keep the objective of capacity building as a constant and key imperative.
 - One of the most important lessons for the PLFN Team arising from the first phase is recognition of the importance of supporting Community members in training and in making the transition to employment. As a standard leading practice in HR management, this is particularly important at the on-boarding and orientation phases and in supporting First Nations members as they acclimate to new roles in working for remediation project sub-contractors. For some First Nations workers, employment on a project of this nature is a new opportunity and one around which they do not necessarily have a

ROLES & RESPONSIBILITIES

Based on lessons learned during the Pilot and Bench Scale Phase, PLFN can improve the process of managing PLFN's interests in the Remediation Project by:

- Formally constituting the PLFN Team (see **Figure 1**– Organizational Chart)
- Articulating the range of services, the Team will provide including *brokerage services* – helping community members enter training, helping trainees secure work experience, assisting Remediation Project employers and contractors with on-boarding and orientation of PLFN members in jobs on the Project and monitoring results

² <https://www.canada.ca/en/employment-social-development/services/noc.html>

great deal of experience to rely on and leverage. On the other hand, not all employers are optimally practicing cultural competency in welcoming a diverse work force; hence, there are also learning opportunities and potential skill-building for employers in this regard. So, support to new employees and supporting the expression and development of strong cultural competency skills within employers become two elements of the success equation that is essential to enhanced outcomes. To date, PLFN Team members have not been centrally involved in this process. Given that transition to employment is a critical success factor, this is an area that should be considered for further discussion and potential process improvement during a debriefing session.

The need to focus on work experience – One of the salutary findings from the first phase of the remediation project is the need to provide work experience to PLFN members being trained. Lack of work experience has been reported as a barrier for PLFN members making the transition to employment on the remediation project during the first phase. If persistent, this has the potential to discourage prospective workers and impact trust. It is an area which the PLFN Team wants to process improve and which may be best addressed through a more formal constitution of a PLFN Remediation Project Management Team. This might incorporate the existing team members, working with the Committee of Council, but with a more focussed mandate, and possibly increased resources to support the development of a more formal work experience program – both within the remediation project and with non-aligned employers - possibly utilizing established wage subsidy programs, such as those available through the Department of Labour and Advanced Education. With the likely delay of the remediation project pending completion of the environmental assessment process, there is an opportunity to have a cohort of PLFN members trained in the higher-demand occupations associated with the remediation project and with tenured work experience completed to optimize their readiness for involvement in the remediation as it advances.

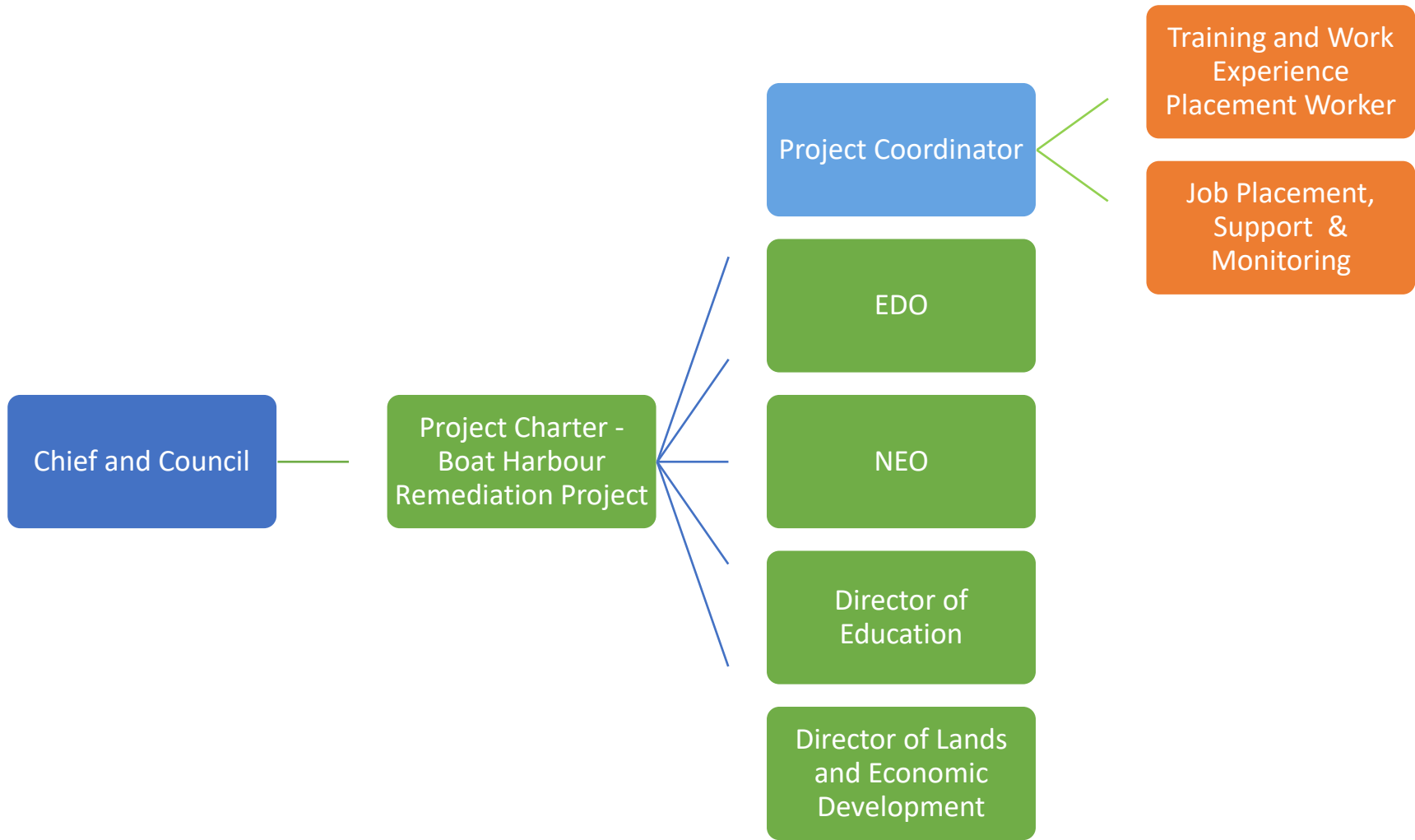


Figure 1 PLFN BHRP Team Organizational Structure

- **The need to celebrate success** – Central to the process of building trust is the need to celebrate success. This is an area that is beneficial for all – Chief and Council, the PLFN Team and Provincial Officials. This needs to be built into the design of the project going forward.
 - **The need for clear and concise material on working with PLFN to share with companies bidding on projects** - Experience to date suggests that there is an information gap on the PLFN Team value proposition and its benefit to employers hiring PLFN members. This could also include practical information for employers on the services available from the PLFN Team to support the onboarding and orientation of Community members in jobs on the remediation project. With a focus on optimizing successful employment placement, forging stronger links between contractors and PLFN members would be of benefit to both employers and the First Nations employees joining their workforce. The PLFN Team can be a valuable resource in providing assistance during employee orientation and in respect to ongoing issues management.
 - Involvement in the assessment of **Aboriginal Content/Benefits** within bids – This is an area around which, arising from experience to date, would likely benefit from further discussion between the teams. Further examination of this issue is addressed in Section 2.4 below in consideration of the procurement process.
- **Partnership development** – The remediation project presents PLFN the opportunity for partnership development to help advance their objectives and to contribute to enhanced capacity building. Further efforts related to partnership development can be undertaken with other Mi'kmaq communities and Indigenous or non-Indigenous partners, particularly in relation to the Chief and Council's expressed interest in establishing businesses related to this project.

Considering the focus of the remediation project with a strong component of earth moving and excavation, the analysis supports a case for the development of a construction and earth-moving business. Similarly, the analysis suggests that establishing an environmental services business also has the potential to create a sustainable legacy opportunity. The options for establishing the Earth Moving Construction Company are examined below including a pros/cons analysis. In broad strokes, this analysis provides a framework through which to examine and test any business development opportunity associated with the Remediation Project.

2.3.1 Earth Moving Construction Company

Table 1 Band Owned Option

Band-owned	
Pros	<ul style="list-style-type: none"> • Potential to contribute to Band own source revenues (OSRs) • Leverages the remediation project to the benefit of the Community • Might be an avenue to support PLFN's requirements for Public Works (this option would require feasibility assessment/business case analysis) • Having this capability would be of value in the future land use phase of the Remediation Project • Deploying these services on the actual remediation project would provide more certainty in terms of a revenue stream for the new company during the establishment phase
Cons	<ul style="list-style-type: none"> • Business has a high capital threshold requiring extensive investment • Meeting any specialized procurement requirements may be difficult
Risk	<ul style="list-style-type: none"> • Risk is potentially higher in 'going it alone'

Table 2 Band Owned Option in Partnership with another First Nation

Band-Owned in partnership with another First Nation	
Pros	<ul style="list-style-type: none"> • There may be synergies with other First Nations, e.g., Paqtnkek's highway development project • There are examples of First Nations that have developed businesses of this type during remediation projects (e.g., during the Tar Ponds Project) that could serve as a model • Having this capability would be of value in the future land use phase of the Remediation Project • Deploying these services on the remediation project would provide more certainty in terms of a revenue stream during the establishment phase
Cons	<ul style="list-style-type: none"> • Business has a high capital threshold requiring extensive investment • Meeting any specialized procurement requirements may be difficult
Risk	<ul style="list-style-type: none"> • Less risk - partnership contributes to a partial syndication of risk

Table 3 PLFN Member / Private Enterprise Option

Developed by a PLFN member as a private enterprise	
Pros	<ul style="list-style-type: none"> • Such an undertaking would be built around a well-researched business case • Encourages entrepreneurship and Community private sector business interest • Potential to create local employment • Having this capability would be of value in the future land use phase of the Remediation Project and may have useful synergies for the Community's Public Works needs on an out-source basis
Cons	<ul style="list-style-type: none"> • Business has a high capital threshold • Meeting any specialized procurement requirements may be difficult
Risk	<ul style="list-style-type: none"> • Removes risk for the Band

Table 4 Aboriginal Enterprise Option

Formation of an Aboriginal Corporation or as a limited partnership with a private sector partner	
Pros	<ul style="list-style-type: none"> • This approach would enable the Band to leverage the capacity (business acumen, marketing, current customer base) a private company in this sector would bring • Contributes to Band OSRs • Potential to create employment within the Community • A lower risk avenue for PLFN to build business capacity • Having this capability would be of value in the future land use phase of the Remediation Project
Cons	<ul style="list-style-type: none"> • Finding the right partner where synergies and shared interest is able to be clearly identified
Risk	<ul style="list-style-type: none"> • Likely the least risk for the Band while still building OSRs and Community capacity

In addition to the above as stand-alone options, there could also be a blending of these options.

Regardless of the business being considered, the PLFN Team may want to utilize a similar approach to the analysis above in assessing the viability and potential sustainability of designated business opportunities that may become evident as remediation project planning advances. Certainly, the analysis suggests that the

Remediation Project creates the opportunity to develop a business as a legacy project to the overall remediation initiative.

From an organizational structure and governance perspective, PLFN presently has two established corporate structures to support economic development (one active and the second, not yet implemented) which, theoretically, could accommodate a new business; or, alternatively, if Band-owned and led, a separate corporate structure could be established including a *Limited Partnership Model*³.

- **Governance factors** – Based on the experience during the first phase of the project, there is an opportunity to examine current governance structures to determine if adjustments or enhancements might be required. Considering the longer-term nature of the actual remediation project (5-7 years after start-up) and the level of responsibility that will potentially fall to PLFN in the later phases – the LTMM Project, if taken up by the Band and the future land use initiative – it is appropriate for PLFN to now formally establish a *Project Charter* to underpin their involvement and formalize the scope of their activities. This would also provide an

In considering these potential business opportunities there are several steps that PLFN should consider. These include the following:

- Undertake the necessary research to qualify potential business opportunities as being viable answering the questions: Does this business opportunity makes sense for the community in the context of the remediation project? Can it can be broadly marketed and thrive following project completion?
- Speak to First Nations’ businesses on lessons learned and pitfalls to be avoided in the development of these businesses in relation to large scale remediation projects;
- Speak to Provincial Officials in respect to the opportunity of these businesses being able to be contracted to the Remediation Project and able to generate revenue through participation/partnerships in providing services to the Project. The earlier proposed working session on procurement rules and opportunities between PLFN and Provincial Officials can include consideration of areas of potential service supply that a PLFN-led/partnered company might be able to achieve during the Remediation Project; and
- Secure professional services to conduct feasibility assessment and business case analysis on potential business opportunities. This will include identification of investment requirements, revenue potential, markets for the proposed services, as well as risk factors and how best to mitigate these risks.

³ <https://www.bdc.ca/en/articles-tools/entrepreneur-toolkit/templates-business-guides/glossary/pages/limited-partnership.aspx>

accountability framework for communication with Community members, it could be reviewed/adjusted periodically as required and it would be durable over election cycles. Operationally, such a charter could be an internal document, or it could be co-signed with the Province. This matter is further addressed in the Strategic Action Plan in **Section 4**.

As part of the development of the proposed governance structure for the management of PLFN's interest in optimizing local economic benefits (LEB) from all phases of the remediation project, PLFN may want to consider the structure and mandate of the internal team established to lead the initiative. As noted in the lessons learned assessment above, management of the LEB process is complex. The analysis undertaken during this consulting assignment suggests that the team that has been informally constituted to help lead this initiative (i.e., the Project Lead/Coordinator working with the EDO, the NEO and the Director of Economic Development and Lands, or some permutation/combination thereof) might be formalized and strengthened with a clear mandate and mission, and potentially with enhanced resources to manage the work experience and employee support process. This would require preparation of *terms of reference* for the group, articulation of an organizational structure/chart and delineation of roles and responsibilities.

If the business development process proceeds to the formation of one or another of the afore-mentioned 'companies' proposed, the governance structure around these businesses will need to be addressed, particularly if Band-owned/structured. Initial discussions in respect to this matter were held with the Band's legal counsel on this aspect, should it proceed. PLFN is presently in a good position with established corporate structures which might be utilized if one or another of these companies were developed. Alternatively, new structures, as referenced above, could be adopted prescriptive to the requirements of the particular business established.

2.4 Analysis of Procurement Rules

One of the deliverables associated with this Study was the analysis of procurement rules. In addressing this issue, the consultant team undertook the following activities:

- Completed a benchmarking exercise to understand how other jurisdictions and levels of government are handling Indigenous procurement, particularly considering the recently signed *Canada Free Trade Agreement*⁴;

⁴ <https://www.cfta-alec.ca/>

- Reviewed Chief and Council's initial thinking on its preferred procurement approach. This has been expressed as a tiered procurement approach with benefits accruing first to PLFN Band Members, second to PLFN Community members and third, to PLFN's partners (could be other communities or organizations who can fill employment business gaps);
- Discussed this issue spoke to Provincial Officials leading the remediation project and the PLFN Team. Provincial officials had prepared a procurement analysis including proposed use of 'set-asides' when capacity demonstrated the ability to use this procurement feature; and
- Spoke with a key informant within the Department of Internal Services involved in procurement.

Examining all these inputs, associated with the procurement issue several key findings emerge. These include:

- PLFN's Chief and Council have outlined their initial thinking and preferences in relation to how they would like to see benefits flow related to the remediation. This approach makes sense from the perspective of its potential to optimize local economic benefits for the Community and, subject to any refinement at Chief and Council's direction should be included as a key objective within the Project Charter. In their initial consideration of the opportunities the Remediation Project presents, the PLFN Chief and Council have explicitly defined that benefits associated with the Project should flow first to the PLFN Community, next to other First Nation collaborators and, finally, through partnerships with other businesses and contractors, in that order. Formally adopted within the Charter, this can be a foundational element of all project activities as they advance.
- In anticipation of a number of upcoming procurements associated with the execution of the actual remediation project, PLFN is interested in enhancing and deepening its understanding of procurement rules. In particular, there is an interest in understanding the opportunity environment within the procurement for supply arrangements that might either leverage existing PLFN services (e.g., catering, use of Community-owned vessels, supplying diesel for all equipment contracted for operation on site, providing vehicle maintenance services through the fisheries team who have the capability of servicing diesel engines on site) or provide a basis from which to develop new services and capacity. In short, in advance of the more intensive remediation activity, there is an interest in inventorying the full range of supply requirements and understanding the range of opportunities for PLFN to address these supply requirements. Informants

engaged during the Project emphasize the need for ‘outside the box’ thinking, to identify opportunities that would have the impact of building capacity within the Community. Such a session would ideally include a discussion on upcoming procurements, their focus and inventorying supply opportunities.

- Provincial officials have also undertaken analysis of Set-Aside provisions and shared these with the PLFN Team. These arrangements and their potential applicability in this context would be usefully explored in this session.
- Operationally, PLFN may also want to focus on articulating and telegraphing its value proposition as a potential partner to bidders in major procurements being advanced over the life of the project. The PLFN Team has been involved in bidders’ meetings that are held in advance of procurements. There have been debates, internally and among the parties on how PLFN might optimize its value proposition with potential bidders. In this situation, PLFN should consider positioning itself as a potential partner to all bidders on a ‘non-exclusive’ basis. As a rated requirement in the bid process, having Aboriginal-content is an important element of all bids. If a bidder is seeking experience and expertise that is not presently available in PLFN, the team can undertake to invoke the tiered approach articulated by Chief and Council and serve in a brokerage role to suggest other First Nations that might be considered as a potential partner with PLFN and the bidder. This has the potential to enhance competition among potential bidders in advancing a winning Aboriginal content strategy. It also has the potential to facilitate capacity building. PLFN can also be clear in bidders’ meetings in articulating its expectations, in underscoring and promoting its value proposition and in detailing how it can help support bidders in meeting the Aboriginal content provisions once they become the selected bidder. A closer working relationship with contractors will also enable the PLFN team to monitor contractor engagement of PLFN labour and businesses against their proposal commitment, thereby enhancing overall accountability. In this way, PLFN team members can also help companies enhance cultural competency within their operations.

As detailed above, another dimension of the procurement process is the involvement of PLFN in the assessment of Aboriginal Content/Benefits within bids. Arising from experience to date, this is an area which would likely benefit from further discussion between the teams. On the one hand, Provincial Officials need to operate within the rules governing procurement; on the other hand, PLFN Team members express the view that they do not have visibility into what bidders are advancing as Aboriginal content/benefits in response to rated requirements within their bids. This issue has been brought forward between the parties and, ideally, will be discussed in any joint stock-taking assessment of progress to date between the parties so that it might be satisfactorily addressed prior to more procurements being advanced.

3 Project Matrix

This Section provides the reference document for highlighting the broad range of economic opportunities arising from the overall Boat Harbour Remediation Project. To complete this exercise, the GATN Team collaborated with the Project lead and Provincial Officials and reviewed an extensive cache of reference documents to develop an overall **project matrix**. The matrix examines the full range of project components associated with the remediation project, looking ahead to the expected 5-7-year remediation phase and beyond. This matrix is meant to integrate elements of the strategic action plan, to provide a criteria-referenced approach to decision making and to act as a reference document to support the project implementation process. It is designed to become a wall-size Gantt Chart which the Project Lead can maintain in her office and check off achievements, during project execution, as milestones are met.

The project matrix addresses the following:

- All project phases commencing with the near-complete bench scale and pilot scale testing phase and progressing through to the later future land use phase once the actual remediation has been completed and Boat Harbour has been restored to its former status as a tidal estuary.
- Cataloguing estimated start and finish dates as a temporal milestone against which to base and reference planning, while noting expected completion of the various project phases. These preliminary dates can be adjusted in real time going forward.
- Information on expected labour demand and supply across all phases; and
- Information on expected commercial demand and supply across all phases. This also serves as a criteria-referenced decision tree on which to base the viability of proposed PLFN business development opportunities.

The matrix has been validated over the course of this Study with the input of the Project Lead and her colleagues and with Provincial Officials.

A fold-out version of the Project Matrix is included in this report. A separate, wall-size version will also be created as a reference document for the Project Lead and Provincial officials. Going forward, it can serve as a jointly-managed reference point to gauge progress and make course corrections as may be required.

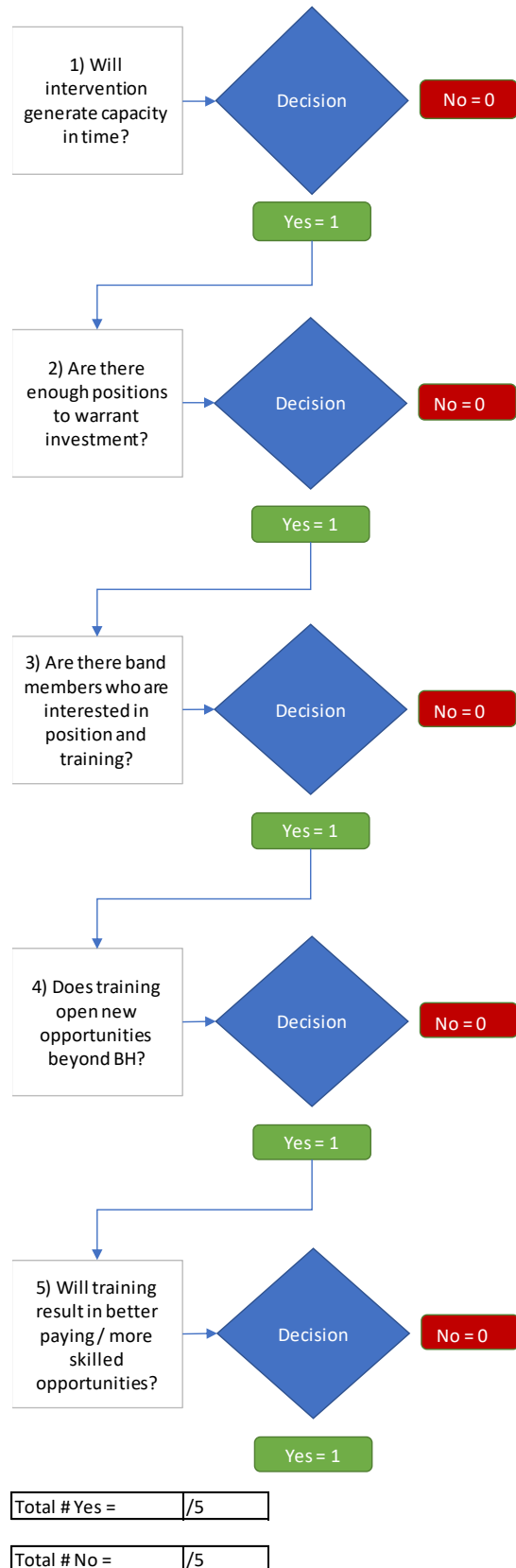
As part of the development of the matrix, the adjacent labour investment decision tree was developed.

This draft approach to determine which opportunities to explore considered:

- Which occupations will result in the higher number of available jobs,
- Which create a higher number of full-time equivalent positions over the life of the project,
- Which opportunities are timed such that an intervention can generate employment capacity in sufficient time to take advantage of the opportunity (i.e., does the project run for longer than training might otherwise require).
- The number of positions
- The level of interest among band members in the available positions,
- If training is likely to lead to opportunities beyond the BHRP,
- If training will result in better paying / more skilled opportunities for PLFN community members,
- Among other criteria.

In practice, these criteria will evolve as more information becomes available around the specifics of the remediation opportunity.

Action Planning: Draft Labour Investment Decision Tree (Unweighted Crite



Building on this approach to opportunity identification, and leveraging available labour supply information from PLFN, available demand information from the BHRP, and augmenting this information with available secondary labour market information, we developed the following matrix to consider the following attributes:

- Demand Details
 - Project Phase
 - Labour / Skill Required
 - Specific Job Title (Assumed)
 - Number of Positions
 - Expected Duration (Years)
 - Estimated FTEs

- Skill Development
 - Estimated Time to Train (Range)
 - Years Experience Required
 - Estimated Time to Train within NS
 - Educational Requirement

- Project Details
 - Estimated Time to Project Start
 - Estimated time to Training completion

- Job Details
 - Median Hourly Wage (NS)
 - Median Yearly Income
 - Total Potential Direct Income

- Labour Supply Details
 - PLFN Labour Available in Time
 - Number Available
 - Overlaps with Other Opportunities

- Analysis and Decision Variables
 - Where are the gaps and therefore offer possible opportunity for targeted training?
 - Which create higher number of positions?
 - Which create higher FTEs?
 - Will intervention generate capacity in time?
 - Are there enough positions to warrant investment?
 - Are band members interested in the positions and training?

- Does training open new opportunities beyond BH?
- Will training result in better paying / more skilled opportunities?

From this, or variants of this approach, it will become possible to understand which opportunities may offer the greatest potential near-term and longer-term wins, based on such things as the time it takes to train up, the number of positions available, and the time over which the positions are required.

The table following provides the resulting draft analysis and based on this, the following areas emerge as areas where there are relatively more positions over the longer-term of the project.

- Administration
- Computer/Electronics Technicians
- Environmental Engineering Technicians
- Environmental Technicians
- Health and Safety

3.1 Keeping the Matrix Evergreen

The value of the matrix is as a tool to monitor and track changes in the project over time, and to focus on the metrics that will allow PLFN to gauge successes or areas for improvement as it seeks to fully leverage the economic and entrepreneurship development potential of the BHRP.

As the project advances, as the remediation program evolves, and as new information is made available, the matrix will need to be updated in order to be useful over the longer term.

How this update will happen will be determined on how the project coordinator chooses to use the matrix as a tool for tracking opportunities. Designed and built using MS-Excel, it is intended to be a working file using a common software package, with minimal use of MS-Excel functions so that even users with a basic knowledge of the program can add new information, change existing information, and otherwise adapt the worksheets to suit the evolving project.

Supporting this, GATN will provide the Project Coordinator with a 1-hour orientation to the matrix and its underpinnings.

Although the approach to accommodate updates will be determined by the information that becomes available, updates will generally fall into categories of the occupations that are expected to be needed, the number of positions that are required, the duration of these positions, the skill sets, and the project phases in which they are involved. The same general categories of information would be made available for service contracts. This addresses the demand side.

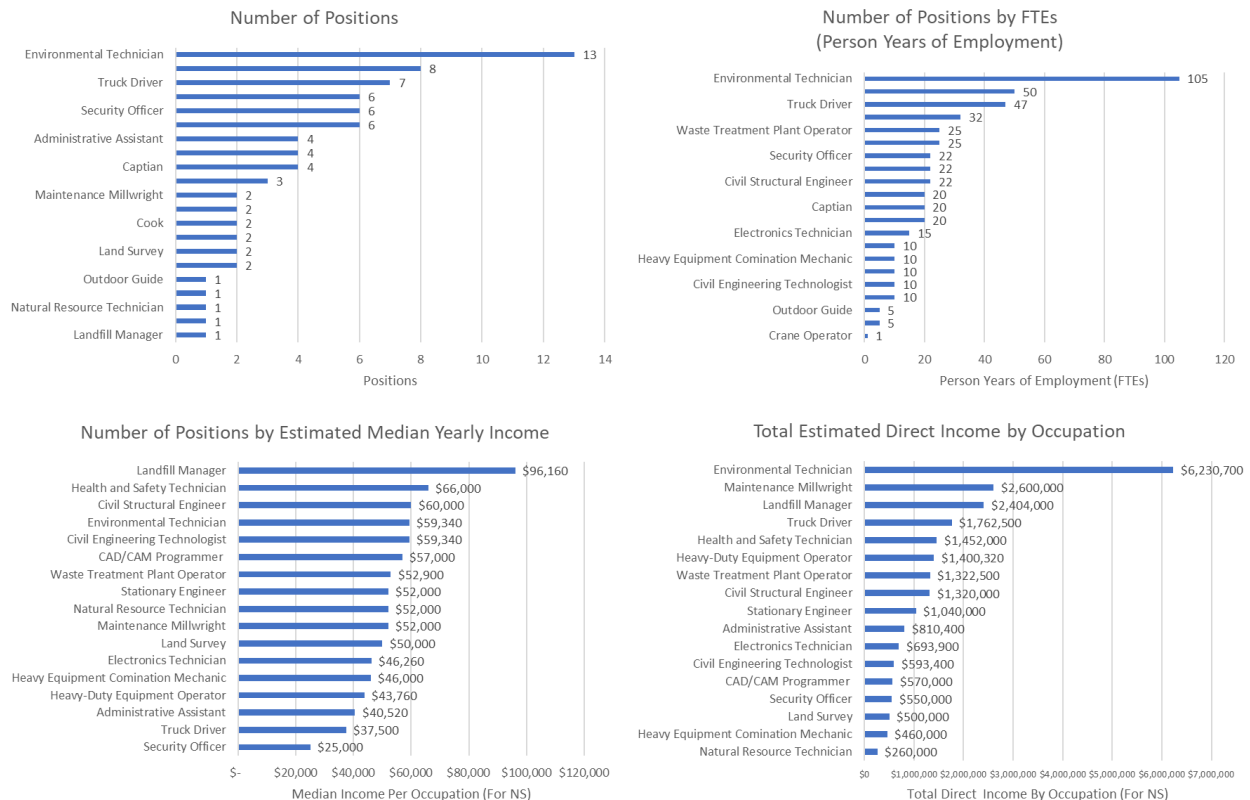
On the PLFN labour supply side, the areas that may need to be updated are the number of people available to fill positions, their interest in the occupations, their credentials to fill a particular occupation, among other things.

In terms of the mechanics of making updates to the worksheets, we suggest printing the sheets on large-format paper (landscape poster print), mounting the master sheet (the sheet that receives all of the updates) on the wall in the project coordinators office, and marking this sheet with changes and updates to track the changes on a daily basis, or as needed. At the end of each month, or more frequently / as needed, translate the manual updates to the excel file and re-print a new master to be posted on the wall and repeat the process. Over time, the data that is accumulated will align with the key metrics and support the role of the coordinator in reporting to Chief and Council on progress made, as well as for the basis on information to communicate opportunities to the community and to engage with stakeholders.

The following is illustrative of the analytical use of the proposed matrix. These four charts track:

- The number of positions over the life of the project (estimated at 78 in total),
- The number of full-time equivalent positions (i.e., the total number of 2,000-hour jobs, currently estimated at 486-person years of employment),
- The estimated yearly income by position (using Nova Scotia Provincial averages), and
- The total project-life-time wages that are estimated based on the current work scope (i.e., just under \$24 million).

These estimates will change as the project scope evolves and as more information is made available.



A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	
	Phase	Labour / Skill Required	Specific Job Title (Assumed)	Estimated Time to Train (Range)	Min Years Experience Required	Estimated Shortest Time to Train (NS)	Estimated Time to Project Start	Estimated time to Training completion	Median Hourly Wage (NS)	Median Yearly Income	Total Potential Direct Income	Educational Requirement	More Information	Number of Positions	Expected Duration (Years)	FT/PT Scaler	Estimated FTEs	PLFN Labour Available in Time	Number Available	Overlaps with Other Opportunities	Gap / Possible Opportunity for Targeted Training	Among occupations, which create higher number of positions?	Among occupations, which create higher FTEs?	Will intervention generate capacity in time? (Does the project run for longer than training)	Are there enough positions to warrant investment? (More than 5 FTEs)	Are there band members who are interested in position and training?	Does training open new opportunities beyond BH?	Will training result in better paying / more skilled opportunities?	SCORE	ACTION	Comments	
1	1. Full scale Implementation	1. Full scale Implementation – Duration for about 5 years																														
2	1. Full scale Implementation	Administrative	Administrative Assistant	2 years	Unknown	2	Unknown	Unknown	\$30.26	\$40,520	\$405,200	College or Apprenticeship	https://www.jobbank.gc.ca/marketreport/summary-occupation/24783/NS	2	5	100%	10	Yes	TBD	NA	#REF!	#REF!	1	1			1	1	#REF!	#REF!	Depending on level of certification or experience required	
3	1. Full scale Implementation	Boat Operators	Captain		Unknown		Unknown	Unknown			50			4	5	100%	20	Yes	TBD	NA	#REF!	#REF!	1	1	1					#REF!	#REF!	Small Vessel Operator Proficiency, Marine Emergency Duties courses offered annually through fisheries.
4	1. Full scale Implementation	CADD	CAD/CAM Programmer	2-4 years	TBD	2	TBD	TBD	\$28.50	\$57,000	\$570,000	College or Apprenticeship	https://www.jobbank.gc.ca/marketreport/summary-occupation/22612/NS	2	5	100%	10	No	TBD	Yes	#REF!	#REF!	1	1			1	1	#REF!	#REF!		
5	1. Full scale Implementation	CET/CMT	Civil Engineering Technologist	2-4 years	TBD	2	TBD	TBD	\$29.67	\$59,340	\$593,400	College or Apprenticeship	https://www.jobbank.gc.ca/marketreport/summary-occupation/17964/NS	2	5	100%	10	No	TBD	Yes	#REF!	#REF!	1	1			1	1	#REF!	#REF!		
6	1. Full scale Implementation	Computer/Electronics Technicians	Electronics Technician	2-4 years	TBD	2	TBD	TBD	\$23.13	\$46,260	\$231,300	College or Apprenticeship	https://www.jobbank.gc.ca/marketreport/summary-occupation/18080/NS	1	5	100%	5	Yes	TBD	NA	#REF!	#REF!	1	1			1	1	#REF!	#REF!	Depending on certification level or experience required	
7	1. Full scale Implementation	Engineers/Project Managers	Civil Structural Engineer	5-7 years	TBD	5	TBD	TBD	\$30.00	\$60,000	\$1,200,000	University	https://www.jobbank.gc.ca/marketreport/summary-occupation/24422/NS	4	5	100%	20	No	TBD	Yes	#REF!	#REF!		1					#REF!	#REF!		
8	1. Full scale Implementation	Environmental Engineering Technicians	Environmental Technician	2-4 years	TBD	2	TBD	TBD	\$29.67	\$59,340	\$890,100	College or Apprenticeship	https://www.jobbank.gc.ca/marketreport/summary-occupation/17971/NS	3	5	100%	15	No	TBD	Yes	#REF!	#REF!	1	1			1	1	#REF!	#REF!		
9	1. Full scale Implementation	Environmental Technicians	Environmental Technician	2-4 years	TBD	2	TBD	TBD	\$29.67	\$59,340	\$1,780,200	College or Apprenticeship	https://www.jobbank.gc.ca/marketreport/summary-occupation/17971/NS	6	5	100%	30	No	TBD	Yes	#REF!	#REF!	1	1			1	1	#REF!	#REF!		
10	1. Full scale Implementation	Field Guide	Outdoor Guide	<1 year	TBD	0.75	TBD	TBD			50	Licensing	https://www.jobbank.gc.ca/marketreport/summary-occupation/6593/NS	1	5	100%	5	Yes	TBD	NA	#REF!	#REF!	1	1			1	1	#REF!	#REF!		
11	1. Full scale Implementation	Food Services	Cook		TBD		TBD	TBD			50			2	5	100%	10	Yes	TBD	NA	#REF!	#REF!	1	1			1	1	#REF!	#REF!		
12	1. Full scale Implementation	Health and Safety	Health and Safety Technician	4 years	TBD	4	TBD	TBD	\$33.00	\$66,000	\$990,000	College or Apprenticeship	https://www.jobbank.gc.ca/marketreport/summary-occupation/22699/NS	3	5	100%	15	No	TBD	Yes	#REF!	#REF!	1	1			1	1	#REF!	#REF!		
13	1. Full scale Implementation	Heavy Equipment Mechanics	Heavy Equipment Combination Mechanic	3-5 years	TBD	3	TBD	TBD	\$23.00	\$46,000	\$460,000	College or Apprenticeship	https://www.jobbank.gc.ca/marketreport/summary-occupation/7461/NS	2	5	100%	10	Yes	TBD	NA	#REF!	#REF!	1	1			1	1	#REF!	#REF!	PLNF potentially may have none available	
14	1. Full scale Implementation	Heavy Equipment Operator	Heavy-Duty Equipment Operator	<1 year	TBD	0.75	TBD	TBD	\$21.88	\$43,760	\$1,312,800	High School or Specific Training	https://www.jobbank.gc.ca/marketreport/summary-occupation/15029/NS	6	5	100%	30	No	TBD	Yes	#REF!	#REF!	1	1			1	1	#REF!	#REF!		
15	1. Full scale Implementation	Natural Resource Technicians	Natural Resource Technician	1-3 years	TBD	1	TBD	TBD	\$28.00	\$52,000	\$260,000	College or Apprenticeship	https://www.jobbank.gc.ca/marketreport/summary-occupation/17930/NS	1	5	100%	5	No	TBD	Yes	#REF!	#REF!	1	1			1	1	#REF!	#REF!		
16	1. Full scale Implementation	Security Services/ Traffic Services/ Flaggers	Security Officer	<1 year	TBD	1	TBD	TBD	\$12.50	\$25,000	\$500,000	High School or Specific Training	https://www.jobbank.gc.ca/marketreport/summary-occupation/14299/NS	4	5	100%	20	Yes	TBD	NA	#REF!	#REF!	1	1			1	1	#REF!	#REF!	2 to 3 courses were held in the community over the last 2 years	
17	1. Full scale Implementation	Stationary Engineer/Pump Operator	Stationary Engineer	<1 year	TBD	0.75	TBD	TBD	\$26.00	\$52,000	\$1,040,000	College or Apprenticeship	https://www.jobbank.gc.ca/marketreport/summary-occupation/7825/NS	4	5	100%	20	No	TBD	Yes	#REF!	#REF!	1	1			1	1	#REF!	#REF!		
18	1. Full scale Implementation	Survey Technicians	Land Survey	1-3 years	TBD	1	TBD	TBD	\$25.00	\$50,000	\$500,000	College or Apprenticeship	https://www.jobbank.gc.ca/marketreport/summary-occupation/18091/NS	2	5	100%	10	Yes	TBD	NA	#REF!	#REF!	1	1			1	1	#REF!	#REF!		
19	1. Full scale Implementation	Truckers	Truck Driver	<1 year	TBD	0.75	TBD	TBD	\$18.75	\$37,500	\$750,000	High School or Specific Training	https://www.jobbank.gc.ca/marketreport/summary-occupation/10534/NS	4	5	100%	20	No	TBD	Yes	#REF!	#REF!	1	1			1	1	#REF!	#REF!	PLFN may have two truckers available	
20	2. Construction and Oversight Management	2. Construction and Oversight Management - Duration for about 5 years																														
21	2. Construction and Oversight Management	Administration	Administrative Assistant	2 years	TBD	2	TBD	TBD	\$20.26	\$40,520	\$405,200	College or Apprenticeship	https://www.jobbank.gc.ca/marketreport/summary-occupation/24783/NS	2	5	100%	10	Yes	TBD	NA	#REF!	#REF!	1	1			1	1	#REF!	#REF!		
22	2. Construction and Oversight Management	Computer/Electronics Technicians	Electronics Technician	2-4 years	TBD	2	TBD	TBD	\$23.13	\$46,260	\$462,600	College or Apprenticeship	https://www.jobbank.gc.ca/marketreport/summary-occupation/18080/NS	2	5	100%	10	No	TBD	Yes	#REF!	#REF!	1	1			1	1	#REF!	#REF!		
23	2. Construction and Oversight Management	Environmental Engineering Technicians	Environmental Technician	2-4 years	TBD	2	TBD	TBD	\$29.67	\$59,340	\$296,700	College or Apprenticeship	https://www.jobbank.gc.ca/marketreport/summary-occupation/17971/NS	1	5	100%	5	Yes	TBD	NA	#REF!	#REF!	1	1			1	1	#REF!	#REF!	1 current student / field of study	

4 Strategic Action & Implementation Plan

4.1 Introduction

This Section addresses the following deliverable:

Develop a strategic action plan to activate opportunities; including but not limited to planning for succession, recruitment, training, private business and band owned businesses.

The action plan elements are addressed in terms of short, medium- and long-term opportunities with suggested timelines. Informed by our analysis and the findings identified in **Section 2**, these action plan elements are presented as suggested recommendations for PLFN to pursue in preparing for the remediation project and subsequent phases.

There is presently a hiatus in activity during the nearly-completed first phase – it is suspended due to weather. Pending decisions related to the environmental assessment(s) and the related execution, it is expected that it may be up to 24 months before new contracts are concluded and work begins on the remediation phase. This delay can work to PLFN’s advantage on several levels. The delay will:

- Provide time for the implementation of the short-term objectives in the action plan;
- Aid in planning and the development of training plans for PLFN members for the occupational areas identified in the Project Matrix; and
- Assist in implementing the medium-term objectives, including the development of potential businesses as part of the overall legacy dimensions of the project.

Notional time lines are suggested in the plan. These may change through the implementation cycle and activities can be advanced concurrently where it makes sense to do so.

4.2 Action Plan Elements and Potential Impacts

Short Term 3-6 months

The focus of this component is to address the results of the review of progress during the Bench Scale and Pilot Scale Testing Phase and prepare for the Remediation and subsequent phases.

PRIORITIZE KEY ISSUES

ACTION PLFN should use this Report, associated tools and the analysis offered to prioritize key issues and areas for follow up with Provincial Officials and as a planning document to underpin how it will approach optimizing the social, economic and environmental associated with the remediation project.

IMPACT The timing of this report coming near the completion of the first phase offers an opportunity to leverage the lessons learned and provide advice and guidance on potential adjustments to refine the approach, while amplifying the impact for the Community.

ASSESS PROGRESS TO DATE

ACTION The Study Findings outlined in **Section 2** identify and itemize a range of issues around which discussion between the PLFN Team and Provincial Officials would be helpful. With the tabling of the Report, it would be timely to arrange a review meeting between the two parties to assess progress to date and to review successes and challenges. An advance agenda to which both parties contribute would help to ensure an effective review and discussion. A summary of decisions should be recorded. Mutual agreements reached during this meeting would be implemented within a specified timeline. [We understand that such a meeting has been agreed to.]

IMPACT The Study Findings provide a forum to assess how present arrangements are working, to celebrate successes, to address any challenges and make any adjustments as may be required.

ESTABLISH A PROJECT CHARTER

ACTION Considering the longer-term nature of the actual remediation project and the level of responsibility that will potentially fall to PLFN in the later phases it is appropriate for PLFN to now formally establish a *Project Charter* to underpin and formalize the scope of their involvement. This would also provide an accountability framework for communication with Community members. The

Charter could be reviewed/adjusted periodically as required and would be durable over election cycles. Such a document will give effect to the overall opportunity analysis identified through this Study, including PLFN responding to areas where Community capacity may need to be strengthened. The Charter could also include notional, quantifiable targets linked to the performance measurement framework outlined in **Section 5**.

A Project Charter would be beneficial for the PLFN Chief and Council, any Council Committees charged with providing ongoing advice and guidance, for the PLFN Team coordinating the project and for the Community as a whole.

ADDRESS GOVERNANCE ISSUES

ACTION Development of the *Project Charter* should address governance issues associated with PLFN's ongoing management of the benefits arising from the remediation project. These include:

- **Developing an organizational chart** detailing the management structure for PLFN's stewardship of this initiative.
- **Formalizing the PLFN Team.** Presently, PLFN has a Project Lead and support positions. The Project Lead works with the EDO, NEO, and the Education and Economic Development and Lands Directors. These arrangements are largely informal and have evolved over the first phase. Going forward, formalizing the PLFN Team – its composition and mandate, while identifying areas where it needs to be strengthened – would contribute to enhanced day-to-day management of this initiative for PLFN. This team redesign should identify key positions and provide a mission/mandate and *terms of reference* that includes roles and responsibilities of team members. As most of these are existing positions, significant increases in costs are not anticipated - rather, it is a matter of how resources are mobilized in support of the objective to optimize benefits from the remediation.
- **Adding resource(s) to address management of work experience,** job placement/support and services to employers/contractors (onboarding, orientation and on-the-job issues management).
- **Addressing succession and ongoing management** of the up-dated PLFN engagement plan, as included in the *Project Charter*, over the life of the remediation project. This will likely involve discussion with Provincial Officials and funding organizations; and

- **Advancing performance management** by developing annual business/operational plans and evaluation of results. These plans could be an adjunct document to the *Project Charter*.

IMPACT Addressing important governance factors in the *Project Charter* will provide greater certainty and codify expectations in a manner that can be tracked and updated over time. In any eventual evaluation of the impact of the project that may be undertaken following its completion, the *Project Charter* will provide the framework against which to examine and measure results.

SCHEDULE A PROCUREMENT SESSION

ACTION Schedule an in-depth briefing on procurement rules associated with the Boat Harbour Remediation Project. This will involve PLFN Officials and Provincial Officials (Nova Scotia Lands and Internal Services Department).

IMPACT This session would deepen PLFN's understanding of the opportunity environment within the Remediation Project for supply arrangements that might either leverage existing PLFN services or provide a basis to develop new services and capacity.

ENGAGE PLFN TEAM

ACTION A key issue identified in the review of the first phase of the project is the involvement of PLFN Team members in the assessment of Aboriginal Content/Benefits within bids. It is important that any potential improvements in this area be identified and made prior to the next round of contracting.

IMPACT This is an area which would likely benefit from further discussion between the PLFN Team and Provincial Officials in the proposed meeting to review progress to date.

EVALUATE MATERIALS SHARED WITH BIDDERS

ACTION The PLFN Team should evaluate the materials currently shared with bidders to address the need for clear and concise information on working with PLFN.

This improved communication might include development of a **concise backgrounder** that includes information on the PLFN Team value proposition and its benefit to employers hiring PLFN members. Materials could also include **practical information for employers on the services** available from the PLFN Team to support onboarding and orientation of Community members

taking a job placement with sub-contractors.

Preparation of an information package could include the following:

A brief overview of PLFN's objectives in relation to the remediation project.

An introduction to the PLFN Team and their roles along with contact information; and

A bulleted description of the services PLFN can provide to employers integrating Community members into their workforce.

IMPACT Optimizing successful employment placement, while forging stronger links between contractors and PLFN members would be of benefit to both employers and the First Nations employees joining their workforce. The PLFN Team can be a valuable resource in providing assistance during employee orientation and in respect to ongoing issues management.

Medium Term 6-12 months

Strategic considerations focused on laying the ground work for achieving legacy dimensions of the project.

UTILIZE PROJECT MATRIX

ACTION The Project Matrix in **Section 3** of this Report examines the opportunities for PLFN across all project phases, including a summary of short, medium- and long-term activities. This matrix has been designed as a living document, meant to be updated as circumstances change. It is data rich, while providing a decision tree to aid in establishing training priorities. It also includes occupational descriptions to clarify job roles and training requirements.

Actioning these opportunities depends on the procurement and contracting process, so timing issues will need to be considered and managed throughout.

Activities include:

- Conducting decision-tree analysis within the Matrix, **design and advance a training plan** for interested PLFN members in occupational areas where key skill sets will be required.
- **Redesigning how work experience / job placement is to be undertaken** to increase the ‘job readiness’ of Community members. Consider expanding this component to include capacity to arrange internship opportunities for PLFN members in occupational areas aligned with the remediation project. Job placement of qualified PLFN members on contracts in occupational areas where they are already trained or credentialed with remediation sub-contractors or non-aligned employers is also a possibility.
- Monitoring in-scope projects and **negotiate internships for PLFN members** as contracted research programs evolve and new ones are advanced.

IMPACT Keeping the project matrix evergreen by regularly updating the project matrix can sustain its value to serve as a reference document for planning cycles across all phases of the remediation project. It is recognized that the project description may be changed as a result of the environmental assessment. The project matrix must take these changes into consideration.

The focus during the remediation phase is on job creation, execution of a targeted

training plan and expanding work experience and internship opportunities designed to enhance job readiness. The hiatus until the environmental assessment(s) is completed and the next round of contracting is undertaken provides an opportunity for planning and preparation to train PLFN members in target jobs/occupations identified in the project matrix.

By encompassing a broad range of occupational areas, as identified in the Matrix, the remediation project provides a pathway to positive career development opportunities and may influence career decisions of PLFN members in STEM subjects, including science and research.

In the longer-term, exercising these opportunities will contribute to building capacity within PLFN to participate in environmental services, an occupational area in which there is strong labour market demand.

ADVANCE BUSINESS OPPORTUNITIES

ACTION Early in the process, Chief and Council identified the desire to advance possible business opportunities aligned to the requirements of the remediation project and which would be sustainable beyond the project completion. Two possible businesses were identified – an earth-moving and construction company and an air/water monitoring environmental servicing company. Options for their development include Band-owned, PLFN member-developed or a partnership model with other First Nation operators or a non-Indigenous business. Our conclusion is that these are viable business opportunities.

IMPACT Effectively developed and managed, these businesses could leverage the work available through the remediation project to create critical mass and grow so that their respective services could be more broadly marketed, and the businesses are able to achieve sustainability over the course of the remediation project. PLFN may want to work with other First Nations with synergies that align with these potential businesses in an effort to leverage their experience and appropriately manage risk.

DEVELOP PARTNERSHIPS

ACTION In the medium term, partnership development offers PLFN a pathway to amplify the results of this large and complex project. Considering the Chief and Council-approved tiered benefits regime, PLFN has established an objective to engage with other First Nations. There are several areas where this engagement can be fruitful including job creation, the development of the afore-mentioned

businesses and potential partnerships on research activities.

In establishing the *Project Charter* to underpin forward activities, Chief and Council may wish to explicitly reference the imperative in respect to partnership development.

IMPACT As capacity building is an underlying objective for PLFN, a partnership development focus offers an opportunity to leverage and mobilize the knowledge and experience of others to the Community's benefit.

Long Term 12-36 months

Some of the most important and significant benefits from this project will be longer term opportunities enabled by the actual remediation project. The project schedule affords PLFN time for careful future planning, with the most important dimension being future land use.

IDENTIFY HR AND SKILL-SET REQUIREMENTS

ACTION Pending the results of the environmental assessment(s) and Community decisions, PLFN will need to consider assuming the LTMM contract as a potential twenty-five-year management opportunity. If PLFN is to proceed in this regard, as a first step, PLFN can begin advance planning with Provincial Officials to address the specific requirements for this Phase, including identifying HR and skill-set requirements and developing a training plan to enable PLFN members to assume these roles.

IMPACT The management of the LTMM facility/operation will create an estimated five permanent positions over a twenty-five-year period. This offers an opportunity for professional-level positions in which PLFN members could be trained and mentored.

LEAD A LAND PLANNING EXERCISE

ACTION Following completion of the remediation project, future land use presents the most exciting opportunity for the Community. Freed at last from the environmental blight, the Community will have the opportunity to use these lands for social, economic, recreational and environmental purposes.

Advance planning for this eventuality has already been undertaken with a report commissioned by Membertou Geomatics. While, not yet final, this Report scopes a range of potential dynamic and attractive opportunities for land use embracing

eco-tourism/tourism, cultural opportunities, economic development and recreational uses, among others.

Using the final land use report as a backdrop, PLFN will want to lead a planning exercise to refine this plan, identify funding requirements, define the timeline and any phasing strategies, while ensuring Community consent for a final approved land use plan. Chief and Council and the PLFN Officials Team will be central to this process.

IMPACT Completion of this project should facilitate a renaissance of the PLFN Community and provide for a brighter future for all – from youth to Elders.

4.3 Implementation

The foregoing strategic action plan suggests a staged approach to a renewed effort by PLFN to amplify the benefits associated with the remediation plan. Implementation is expressed in terms of short, medium and long-term objectives and milestones.

This strategic action plan addresses the full range of issues identified in the findings outlined in **Section 2**, while building on the engagement process with both the PLFN Team and Provincial Officials.

Implementing the proposed development of the *Project Charter* will serve to refine implementation goals and objectives in terms of intended outputs and/or outcomes and clarify roles and responsibilities. This process also offers the opportunity to consider the resource implications including budget and HR requirements.

The strategic action plan also provides a schedule, while prioritizing the activities into short, medium and long-term planning horizons to facilitate more managed planning and execution.

5 Performance Measurement Framework

The purpose of the logic model is to clearly frame PLFN's approach to identifying and developing Boat Harbour Remediation economic opportunities.

It is important to note that this is a draft logic model for leveraging economic development opportunities from the remediation that this is being tabled prior to the finalization of the overall go-forward remediation work plan.

In particular, the final details of the remediation construction phase are not yet fully known. Information that is missing or provided as early estimates includes the anticipated number of people required by task / position.

As the project evolves, more information will become available that will add clarity to the scope of the BHRP and the opportunities for PLFN participation.

PLFN works with community members and other partners to advance training to employment, education, and practical work experiences. These efforts are expected to build capacities so that, overtime, PLFN will be in a position to further leverage opportunities associated with the BHRP as well as advance work opportunities in other areas / projects not directly timed to the BHRP but nevertheless enabled by participation in BHRP.

The draft logic model will support PLFN in its efforts to leverage remediation opportunities.

- Reach – the stakeholders that PLFN's work on the remediation is intended to impact.
- Inputs / Components– the resources, partnerships, and stakeholders that will help PLFN achieve its economic development opportunities with respect to its involvement in the BHRP. These are the resources invested in the effort and include people, equipment, facilities, and funds
- Activities – these are the actions undertaken in efforts to achieve the stated objectives.
- Outputs – these are the immediate results of the activities that had been undertaken (an activity to 'coordinate' stakeholders may result in a meeting as an output).
- Outcomes – these are the short, intermediate (mid-term) and longer-term results of the activities of the PLFN's work to leverage remediation opportunities. Shorter term results may include capacity being added to the labour force, while a longer term or ultimate outcome may include a worker starting their own company and working on other

projects for a variety of other clients.

- **Targets and Key Stakeholders / Collaborators** – shown at the bottom of the logic model, are the groups, organizations, and individuals that PLFN hopes to involve, influences, and collaborate with.

Going forward, and as part of the process to implement PLFN's remediation economic development strategy, PLFN will review and may adapt the logic model as the scope of the project becomes more clearly understood.

Reach	Inputs	Components	Activities	Outputs	Short-term outcomes (capacity)	Intermediate outcomes (behaviour)	Long-term outcomes (system/organization)
<p>PLFN, Organizations working with and / or Supporting PLFN, PLFN Businesses and Enterprises, Government Decision Makers, non-Indigenous Enterprises</p>	<p>PLFN Leadership BHRP Steering Committee PLFN Staff BH Advisory Committees Funding and funding partners</p>	<p>Indigenous Partnership Development</p>	<p>Coordinate: with Gov'ts, Communities, Universities, Funders, staff to administer PLFN's BHRP implementation activities and initiatives</p>	<p>Meetings</p>	<ul style="list-style-type: none"> • Advocacy on behalf of PLFN workers / students • More PLFN members are participating in BHRP • Community members, band staff, are aware of BH opportunities over the short, medium and longer term and are using this to plan their employment direction / entrepreneurship direction • Non-indigenous business partners are aware of the opportunities to work with PLFN • Increased business collaboration (Indigenous and non-Indigenous) • More Indigenous students / youth are in post secondary education fields and becoming involved project related fields with BH • Commitment to PLFN economic development • Funder / stakeholder knowledge and commitment to PLFN employment and enterprise development 	<ul style="list-style-type: none"> • Increased competitiveness • Increased / more stable employment • Greater participation in a broader array of industries • Improved social conditions (housing, health, etc.) • Higher levels of own-source revenues from a wider array of enterprises and sectors (diversification) • Increased quality of life, and self-determination <p>PLFN enterprises are:</p> <ul style="list-style-type: none"> • More profitability • Embracing innovation (embracing new technologies and processes) • Experiencing enhanced relationships between other businesses / enterprises, government • Experiencing more opportunities for own-source revenues • More self-reliant • More productive • More competitive <p>PLFN workers and businesses are more skilled, diverse, adaptable</p> <p>PLFN workers are attached to the labour market</p>	
		<p>Non-Indigenous Partnership Development</p>	<p>Outreach: Build/maintain linkages within and among Indigenous communities and organizations, project proponent, non-indigenous businesses, training resources</p>	<p>Training to employment programs</p>			
		<p>Funding Submissions and Approvals</p>	<p>Project Administration: Determine eligible projects, costs and cost-sharing agreements, obtain funder approvals, contractual arrangements</p>	<p>Information on career pathways</p>			
		<p>Communicate with community, Outreach, and Promotion</p>	<p>Communications: announcements, website, social media, print material, reporting to committees and partners</p>	<p>Information about community resources / business capacity</p>			
		<p>Monitoring, Reporting & Admin</p>	<p>Evaluation, Monitoring, and Reporting: Conduct project reviews, collect performance indicators & evaluation forms, manage budgets & release funds as per contracts / agreements, monitor results, report on progress</p>	<p>Tracking of Issued and awarded RFPs</p>			

Targets and Key Stakeholders / Collaborators:
 PLFN Community Members (on and off-reserve Band members, youth, Elders), NS Lands, ACOA, LAE, Department of Indigenous Service Canada (DISC), Crown- Indigenous Relations and Northern Affairs (CIRNA), Pictou County Regional Enterprise Network (PCREN), Federal and NS Government Agencies and Departments (e.g. Apprenticeship, Department of Business, Employment and Social Development Canada)

5.1 Draft Evaluation Framework

The evaluation framework builds on the logic model, to support the PLFN with a plan for identifying, tracking, collection, and reporting on key metrics or indicators that will allow the PLFN to understand the impact of their work to leverage economic opportunities flowing from the remediation.

The Evaluation Framework is reflective of the logic model and expected outcomes. The logic model facilitates the development of detailed interview guides, surveys, investigation of administrative data, and other research tools, depending on the evaluation methodology to be followed.

For example, an evaluation approach that is largely interview based, focused on thematic areas arising from the evaluation model and applied in the development of customized interview guides targeted to specific stakeholder groups, will lead to results reporting that are more qualitative. An approach that is more focused on measurement of employment, hours of employment, wages paid, and the like will tend to be more quantitative.

Mindful of this, and in light of the yet to be determined nature of the remediation work, the following table is intended to help guide the collection of data that will help PLFN understand the progress being made toward leveraging economic opportunities from the remediation project.

The draft table was prepared by selecting from all expected evaluation outcomes those that could be informed through quantitative data, if available, and the specific data that would inform the expected outcome.

Outcome Being Informed	Indicator	Data Sources
The Project Team identify job opportunities	#/% of positions available Accessibility of positions	<ul style="list-style-type: none"> BHRP Staff Administrative Data Survey of Community Members PLFH BH project Office / Administrative Data
The Project Team identify job ready clients	#/% of Community Members who are available, who are training to become available, who have a pathway mapped out	<ul style="list-style-type: none"> Administrative Data Survey of Community Members PLFH BH project Office / Administrative Data
Community Members better understand employment opportunities and expectations	#/% of participants at information sessions	<ul style="list-style-type: none"> Administrative Data Survey of Community Members
	#/% of participants who	<ul style="list-style-type: none"> Administrative Data

Outcome Being Informed	Indicator	Data Sources
	indicate interest in project work	<ul style="list-style-type: none"> Survey of Community Members
Contact, intervention and job search / matching support is timely and effective	# /% of participants contacted by PLFN project office and timing of contact	<ul style="list-style-type: none"> Administrative Data Survey of Community Members
	# of days to 1 st meeting (referral)	<ul style="list-style-type: none"> Administrative Data Survey of Community Members
Community Members job search needs are assessed and met (interventions)	# /% of participants with completed basic needs determination	<ul style="list-style-type: none"> BHRP Staff Administrative Data Survey of Community Members PLFH BH project Office / Administrative Data
	# /% of interventions complete	<ul style="list-style-type: none"> BHRP Staff Administrative Data Survey of Community Members PLFH BH project Office / Administrative Data
Increased confidence / self-sufficiency among Community Members participating in BHRP	% of Community Members with interventions complete; Qualitative feedback from clients	<ul style="list-style-type: none"> BHRP Staff Administrative Data Survey of Community Members PLFH BH project Office / Administrative Data
Change in employment status for Community Members	# /% of referred clients employed	<ul style="list-style-type: none"> BHRP Staff Administrative Data Survey of Community Members PLFH BH project Office / Administrative Data
	average hours of employment per month	<ul style="list-style-type: none"> BHRP Staff Administrative Data Survey of Community Members PLFH BH project Office / Administrative Data
	# /% employment goals met	<ul style="list-style-type: none"> BHRP Staff Administrative Data Survey of Community Members PLFH BH project Office / Administrative Data
Participating Community Members have increased independence	Delta on employment income for participating clients relative to previous income level	<ul style="list-style-type: none"> Survey of Community Members Band Staff

Outcome Being Informed	Indicator	Data Sources
PLFN / community members earn more revenues	Measured changes in incomes, savings	<ul style="list-style-type: none"> • Survey of Community Members • PLFH BH project Office / Administrative Data • Band Staff
More community members participate fully in the labour market	Exit from EI/supporting programs, change in earned income as a % of total household income	<ul style="list-style-type: none"> • BHRP Staff • Administrative Data • Survey of Community Members • PLFH BH project Office / Administrative Data

When the final remediation plan is known, the above guide can be used to develop ‘measurables’ that can be tracked over time and used as both an accountability framework to assess achievement, as well as a management tool to address course corrections where needed.

6 Concluding Statement

The timing of the completion of this Study is fortuitous. Coming near the completion of the first phase of the remediation project, much has been learned. Arising from the outreach and engagement undertaken with key stakeholders during this Study, those lessons learned are reflected in this Report. Considering that this is a long-term project, these lessons learned will be helpful in enabling all parties to address the findings arising from this Study. The proposed strategic action plan is designed to support this process in a manner that should enhance outcomes and optimize social, economic and environmental benefits for PLFN.

Annex 3.3

BHCC Minutes Feb 22, 2019 meeting

Minutes

Boat Harbour Cleanup Committee Meeting – Moving Forward		
February 22, 2019	9:30 a.m. – 2:00 p.m.	Prince George Hotel Halifax
Meeting called by	Nova Scotia Lands Inc.	
Facilitator	Jo Ann Fewer	
Note taker	Marrinna Wells	
Attendees	Chief Andrea Paul, Wayne Denny, Marsha Mills, Derek Francis, Dominic Denny, Gordie Prosper, Don Francis, Michelle Francis-Denny, Heather Head, Barry Francis, Tracey Denny, Lucy Francis, Sheila Francis, Kim Strickland, Sosep Hatfield, Colleen Denny, Melanie Francis, Michelle Simpson, Paul LaFleche, Stephen MacIsaac, Jo Ann Fewer, Ken Swain, Angela Swaine, Chad Lucas, Marrinna Wells, Justin Huston	
Where We've Been Since 2014 and Moving Forward		
9:45 – 10:30	Ken Swain	
Discussion	<p>Power point presentation provided to all, serves as the discussion overview.</p> <p>Discussion points:</p> <ul style="list-style-type: none"> • Liability recently updated to \$217 million, of which \$21 million spent to date. Includes about \$8 million for GHD, \$6 million for pilot scale work and just under \$1 million to PLFN. • PLFN well field assessment conducted by two 3rd parties, no impacts from return to tidal. • The BHEAC committee is about foreseeing any issues that may arise on the path, to help deter these issues from happening. • What will happen to the pipeline? – There are three options 1. Remove all of the pipe, 2. Remove parts of the pipe 3. Leave pipe and fill. (April 2018) Decision made to let the PLFN community decide what happens to the pipe adjacent to Indian Cross Point. So far, the general consensus has been to leave the pipe and fill but more input from the community is needed and this is an action item for the community. • Waste management; containment cell on site to be used with a vertical height above the existing berm height of about 12 meters in the worst-case scenario. • PLFN wants a Federal EA for Boat Harbour Remediation Project as they are concerned with the waste left on site near Boat Harbour. • Water levels of Boat Harbour will be a foot or two lower than what they are right now once remediation is complete and will be even lower during low tide. 	

Minutes

	<ul style="list-style-type: none"> • During pilot testing it was gleaned that too much of the clean underlying harbour bottom was being taken during dredging, which would significantly impact the amount of sludge that will go into the containment cell and increase costs, so an alternative dredging method is being examined. • For remediation there will probably be two large contracts awarded worth millions of dollars each, plus we are considering the possibility of GHD to oversee implementation. • It was asked if project work be done during the downtime before the project starts with the answer being no, if it is part of the overall project we cannot do any work without the environmental approval. • It was asked if there a chance the mill will still pump into Boat Harbour after Jan. 31, 2020 with the response being the Premier is staying firm in messaging on the date. • OAA commented that the lapse in time gives more opportunity for PLFN community members to get geared up to take advantage of economic opportunities. The expectation is that the EA results in a project approved with conditions (however this is not guaranteed). The other two possible outcomes are either that the project undertaking will be approved without conditions or that it will be rejected. • A question was posed as to whether the mill will be able to pump their clear water used to keep boilers operational into Boat Harbour during the downtime? NS Lands will consult with Nova Scotia Environment and reply in writing to PLFN. • A question was posed as to whether the Mill could still pump effluent into Boat Harbour because it is treated to which the reply was no, treated effluent is still effluent. • PLFN asked if there would be more opportunities for training, NS Lands confirmed further training would be supported. • PLFN concerned about the small explosions (off gassing) that can happen from containment cell (from Project description). NS Lands will follow up on the issue' • PLFN expressed concerns over transporting sludge if there was an accident. 	
Action Items	Person Responsible	Deadline
Need more input from PLFN community about what they would like to see done with the pipeline	Community Liaison	PLFN Meeting March 21
Federal EA decision pending <i>Post Meeting note that decision made that CEAA EA to be conducted</i>	CEAA decision	Feb.22, 2019
Training/ Economic Opportunities for PLFN – develop requests/ plans	PLFN	Ongoing

Minutes

Will the mill be able to pump their clear water used to keep boilers operational into Boat Harbour during the downtime	NSLI – Response in writing requested	??
Challenges with Where We've Been and Moving Forward		
10:30 – 11:09	All	
Discussion	<p>PLFN Community Liaison Coordinator voiced concerns about:</p> <ul style="list-style-type: none"> • a discussion about social insurance numbers by a major consultant of the BHRP • trucks going to and from Boat Harbour not getting gas at Victoria's PLFN gas bar • information not flowing down to sub-contractors – they need to engage PLFN business/ employees • NS Procurement process – how to take advantage of opportunities • Relationship is important! PLFN should not be excluded by any of the talks, including NS Procurement • NS Procurement process should be more open. Communication around PLFN employment content - what contractors have to do and are they fulfilling them • PLFN Chief expressed concern that there needs to be more dialog with community members. Have first meeting without Government to have a real conversation within the community to get their perspective. Keep consultation discussions to PLFN only. Future PLFN events only for PLFN community. PLFN Chief expressed concern about the issue of are we on track, is the community behind us, are we representing the community voice. • The PLFN community need to feel like they had a hand in the project in any small way to be part of the legacy. • Exciting new developments - Develop curriculum for history of Boat Harbour, learning outcomes for children, children part of land development • NS Lands reasserted that if there are issues then let us know – keep communication open and timely 	
Action Items	Person Responsible	Deadline
Ability for PLFN to have a direct line to NS Procurement Dept.	PLFN, Michelle Simpson	Ongoing
Include PLFN in the NS Procurement process, including evaluation of the First Nation Workplan piece only of <i>RFPs</i>	NS Procurement will assess and act in consultation with NS Lands	Ongoing
Follow up and address - Plan for communication of contractor's obligations to PLFN from RFPs and follow up to make sure those obligations are met	NS Procurement, NSLI, PLFN	Ongoing

Minutes

Develop curriculum for history of Boat Harbour for PLFN school to educate children	PLFN	Ongoing
Group ATN Report on Opportunities Moving Forward on the Strategic Action Plan, Including NS Procurement		
11:19 – 12:00	Jo Ann Fewer, Michelle Simpson	
Discussion	<ul style="list-style-type: none"> • Assess Progress to date – started today • Establish a Project Charter – PLFN is doing this with Group ATN • Address Governance Issues – these all should appear somewhere in the Project Charter document • Evaluate Materials Shared with Bidders – Once PLFN has a package for bidders then NS Lands can help” polish” this package before it is given to bidders. • Schedule a Briefing Session for PLFN on NS Procurement Rules and Opportunities – Michelle Simpson from NS Procurement provided a briefing and NS Lands and NS Procurement will work on a concept of PLFN inclusion in the First Nations components of procurement on the Project • Utilize the Project Matrix developed by Group ATN– PLFN to use this tool which also may inform developing partnerships • NS Lands identified a business opportunity in a source for fill (project materials) ‘borrow’ supplies obtain from PLFN lands for project 	
Action Items	Person Responsible	Deadline
Identify Appropriate Business model - Establish a project charter (Form a Committee for)	PLFN with Group ATN	
Project Matrix – Funding training – Process to go through (address)	PLFN to lead/ NS Lands to support	
Commitment for containment cell long term monitoring and maintenance – provide assistance in development of entity and provide training/ mentoring etc.	NS Lands with PLFN	
PLFN to create bidders’ package for RFPs, NS Lands to help “polish” PLFN bidders’ package before submitting.	PLFN and NS Lands	
‘Unearth” sources of fill on PLFN as a business opportunity	NS Lands with 3 rd party engineering firm PLFN – to explore business opportunity	
Deputy Minister Remarks		
1:00 – 1:15	Paul LaFleche	

Minutes

Discussion	<ul style="list-style-type: none"> Deputy Minister did a round table for introductions and to talk to individuals one on one, gave a few remarks to the group – Minister Hines has been to visit the Boat Harbour site. 	
Communications and Future BHCC Meetings		
1:15 – 1:45	Jo Ann Fewer	
Discussion	<ul style="list-style-type: none"> Boat Harbour Cleanup committee to meet every two months (next meeting will be April) A session on what the EA is and means for the PLFN community, the process, how long it will take, and a hand out for information, and when there will be work during the downtime Team call with Michelle every Monday morning to continue PLFN to create a presentation to use to help obtain partnerships (NS Lands to help) NS Lands commented that they will soon initiate broader public communications PLFN to share best practices with others Decommissioning of the pipeline at Indian Cross Point, need for a community focus group session NS Lands agreed to support a video production to ‘<i>tell our story</i>’ (PLFN) Opportunity to learn from JEDI initiative in NB. Use of JEDI model – Educate employers/ define the process (Onboarding etc.) What else is available? Patsy Paul - PLFN to explore 	
Action Items	Person Responsible	Deadline
A session on what the EA is and means for the PLFN community, communicate the ‘downtime’	CEAA, NS Lands, PLFN	March 12
All on board representation of the community voice PLFN- Check in Meeting (Just for PLFN members)	Michelle Francis-Denny	
PLFN to create a presentation to use to help obtain partnerships (NSLI to help)	Michelle Francis-Denny	
PLFN to develop focus group to talk about decommissioning of pipeline – NSLI to have session about pipeline decommissioning	PLFN – develop focus group NSLI – Plan Info Session	March 21
NSLI invest in a video to ‘ <i>tell our story</i> ’ (for PLFN)	PLFN to create (NSLI to support)	
Use of JEDI model, educate employers/ define the process (Onboarding etc.) – PLFN to explore	Michelle Francis-Denny	
Land use Plan PLFN has developed with NS Lands support	PLFN, NSLI	

Minutes

NS Lands will help advance elements of plan (current and during cleanup)		
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Annex 3.4

BHCC Terms of Reference

* Note these Terms of Reference were reviewed at a BHCC meeting at PLFN in November 2020, and no changes were proposed.

DRAFT

**Terms of Reference
Boat Harbour Cleanup Committee
July 2015**

Purpose of these Terms of Reference

1. These Terms of Reference outline the background to the establishment of the Boat Harbour Cleanup Committee (the “Committee”) and identify the Committee’s purpose, its makeup and its management.

Background

2. The Province and the Pictou Landing First Nation (the “PLFN”) entered into an Agreement in Principle dated June 16, 2014. Under the terms of the Agreement in Principle the Province subsequently introduced legislation in April 2015, the Boat Harbour Act, which then enacted into law the date of January 31, 2020 for the cessation of the use of the Boat Harbour Effluent Treatment Facility for the reception and treatment of effluent from the Northern Pulp Mill (the “Closure”).

3. Under the terms of the Agreement in Principle the Province and the PLFN was obligated:

- a. to negotiate in good faith a reasonable timeline for Closure. This was accomplished.
- b. to negotiate in good faith the terms of an agreement respecting the remediation of Boat Harbour following the Closure (“the “Cleanup”). This remains outstanding.
- c. to negotiate the reasonable costs of the PLFN participating in the negotiations referred to in a. and b. above. This was accomplished.
- d. to work to identify Mi’kmaq burial sites or burial grounds at Indian Cross Point (“Burying Grounds”) for protection by the Province. This was substantially accomplished with the purchase of the Baker Estate comprising an estimated 25.5 acres of the 27 acre site, recognizing that there is a parcel of land remaining on the Palmer property.

Purpose of Committee

4. In light of the outstanding issue identified in 3 (b) above, the Province and the PLFN agree to establish a committee to be called the Boat Harbour Cleanup Committee (the “Committee”) for the following purposes:

- a. to allow for the timely and orderly exchange of information, views and concerns between the Province and the PLFN on a regular basis concerning Cleanup.
- b. to allow the PLFN to understand, assess and respond to the work being done by the Province to plan and implement the Cleanup.

- c. to negotiate in good faith the terms of one or more agreements relating to Cleanup, including the economic participation of the PLFN in those activities;

5. The Committee is advisory only and has no decision making authority. No agreement will be binding unless approved by the Province and the PLFN in accordance with their respective procedures.

6. It is not intended that the Committee will impede or slow the work of the Province aimed at planning and implementing Cleanup, which work the Province has an obligation to undertake independently of the PLFN.

7. The meetings of the Committee, the information provided at, in preparation for or as a follow up to a meeting, are “without prejudice”. The work of the Committee is not intended and shall not be construed in any way as a consultation or as a release or discharge of the Province’s duty to consult with and accommodate the PLFN.

Makeup of Committee

8. The Committee will be co-chaired by a representative of each of the Province and the PLFN. The Provincial Chair will be a representative of Nova Scotia Internal Services and the PLFN Chair will be appointed by Chief and Council.

9. Representatives of the PLFN will be appointed by Chief and Council. The Province will have representatives from Internal Services and from other provincial departments as required.

10. The PLFN may request that the Province arrange for the attendance of specific individuals or the representation of specific departments at Committee meetings and the Province will consider this request in good faith.

Frequency of Meetings

11. The Committee will meet as often as necessary to ensure the meaningful engagement and economic participation of the PLFN in planning and implementing the Cleanup.

Role of Committee Members

12. PLFN representatives on the Committee will:

- a. acknowledge these terms of reference, as revised from time to time;
- b. advise the Committee of community perspectives;

- c. provide advice and perspectives on information tabled at the Committee meetings;
 - d. attempt to anticipate potential problems and offer options for resolving them;
 - e. attend meetings of the Committee;
 - f. after Committee meetings, diligently undertake action items and gather and provide information as requested by the Province's representatives or which is necessary to respond to concerns, comments and interests of the parties as raised in the meetings or as otherwise may come to the attention of the PLFN's representatives;
 - g. communicate information received from the Province to the PLFN in the manner directed by Chief and Council; and
 - h. declare any potential conflicts of interest.
13. The Province's representatives on the Committee will:
- a. acknowledge these Terms of Reference, as revised from time to time;
 - b. bring all relevant information to the Committee in a timely fashion;
 - c. anticipate questions and concerns of the PLFN and gather the best information available to fully inform the PLFN at the Committee meetings;
 - d. listen carefully to the advice and perspectives of the PLFN representatives and other Committee members;
 - e. set action items for Provincial representatives with timelines for completion;
 - f. after Committee meetings diligently undertake action items and gather and provide information as requested by the PLFN's representatives or which is necessary to respond to concerns, comments and interests of the PLFN as raised in the meetings or as otherwise may come to the attention of the Province's representatives;
 - g. table at the meetings as soon as possible, tentative proposed timelines (and any amendments thereto) for Cleanup and the rationale for same with sufficient supporting documentation to allow the PLFN to make informed decisions regarding the proposals and to comment on them in an informed manner;
 - h. provide clear and straightforward information and answers where possible;

- i. provide regular updates on the work of the Province with other provincial and community stakeholders, the Mill, and any other parties on issues which impact the remediation of Boat Harbour at the Committee meetings; and
- j. create a web based tool to allow action items to be listed by the Provincial representatives and with a mechanism to allow the Provincial representatives to post the status of action items on an ongoing basis and to allow for viewing and comments by the PLFN representatives, as well as for the sharing of other information pertinent to the Cleanup.

Meeting Management

14. Meetings will be a combination of discussions, presentations and working sessions and will not be open to the public or to non-Committee members except by agreement of the Committee. Non-Committee attendees may be present as presenters or observers only. Anyone wishing to present information or views to the Committee must request permission from the Co-Chairs.

15. Meeting locations will be determined by the Committee and which will make the best effort possible to have the meetings within the geographic vicinity of the PLFN.

Deliverables

16. Deliverables from the Committee include:

- a. one or more draft agreements respecting Cleanup; and
- b. proposed options for the PLFN's meaningful participation in economic activity during planning and implementing the Cleanup, including any commitments to provide direct and indirect funding and/or support to the PLFN as a means of enabling meaningful economic participation in the Cleanup planning and implementation.

Work Plan

17. The following matters will be addressed in initial discussions either before or at the initial meeting of the Committee:

- a. Confirm terms of reference including purpose of Committee;
- b. Discuss and confirm Committee membership;
- c. Agenda for future meetings;

- d. Minutes of meetings;
 - e. Reasonable costs of PLFN's participation;
 - f. Province's tentative time line for Cleanup based on current information available to the Province i.e. if a decision had to made today based on current information what would the time lines be?; and
 - g. Rational for tentative timelines.
18. Other items for immediate discussion will be:
- a. Identify and prioritize information and steps required before timelines for Cleanup can be set;
 - b. Identify and prioritize information and steps required to determine scope of Cleanup; and
19. Other items for discussion over the course of the meetings will be:
- a. Internal, community and public communications;

Annex 3.5

BHRP Project Overview, Mi'kmaq version

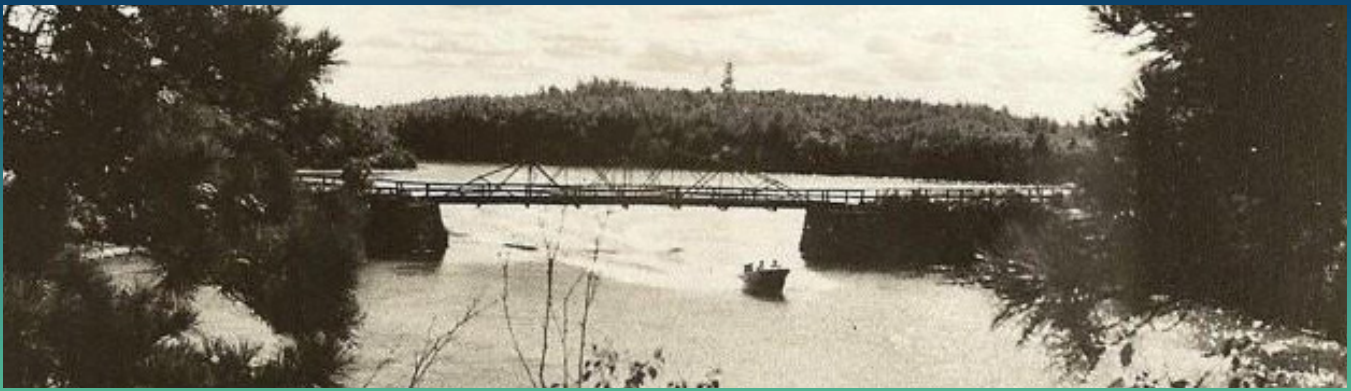
Boat Harbour Remediation Project

An Overview

A'se'k
Waqma'tasik

Ta'n Tela'taqati'kw





What is the Boat Harbour Remediation Project?

Boat Harbour, or A'se'k in Mi'kmaq, was a tidal estuary connected to the Northumberland Strait in Nova Scotia. The Pictou Landing First Nation (PLFN) community lives beside A'se'k and knows it as "the other living place" or "the other room."

A'se'k was a gathering place where food, knowledge, and skills were exchanged between generations and among family groups. Mi'kmaq used the land for refuge, recreation, fishing, hunting and gathering of medicines, foods and herbs, as well as for physical, mental, spiritual, and emotional purposes.

In 1967, the Province of Nova Scotia constructed the Boat Harbour Effluent Treatment Facility to treat effluent, or liquid waste, from the Abercrombie Point Pulp Mill. Its construction turned the tidal estuary into a treatment basin. Much of the community use of the land was lost.

Pictou Landing First Nation's wish is that Boat Harbour be cleaned so the community can restore its relationship with the water and land of A'se'k. The Province is planning to clean up A'se'k and surrounding lands so it can return to a tidal estuary and natural restoration can return over time. In 2015, the Boat Harbour Act made it law that effluent from the mill had to stop flowing into Boat Harbour by January 31, 2020. Since the Act was passed, the

Koqoey Net Weji-ila'tumk A'se'k Lukwaqney?

A'se'k na paqtapa'q wettaqne'wasik Northumberland Strait No'pa Sko'sia. Piktuk L'nue'kati etek kikjiw A'se'k (se'kk etlqatmumk).

A'se'k na etl-mawita'mkip ta'n mijipjewey, kina'matnewey aqq teli-ntawa'qa'tekemk etl-kina'mua'tipnik kisiku'k aqq wen wikmaq. Mi'kmaq ewe'wmi'tis ula maqamikew wjit likasuti, amaltia'kwemk, ekwitamemk, netuklimk, aqq mawo'tumk l'nui-mpisunn, mijipjewey aqq piteweyaqsil aqq elt wjit Mtininey, Teli-ta'simkewey, Nsituo'qney aqq Ketlamsitasimkewey.

1967ek Kaplno'l No'pa Sko'sia eltu'tip A'se'k Etl-maliaptasik Piw-wekasik wejtk Kwesawe'k Pqa'wi'kank (Abercrombie Point) Palpu'tey Mulin. Kisitasikek ewe'wasikip paqtapa'q wjit etl-mawta'sikaqq maliaptmumk mjikapu wejtk mulink. Mu nuku' kis-we'wmi'tiksisip L'nu'k maqamikew.

Piktuk L'nue'kati menueke'tij A'se'k waqma'tasin kulaman wutan kisi-apaji-we'wtaq sam'qwan aqq maqamikew A'se'k. No'pa Sko'sia ketu' waqma'tu'tij A'se'k aqq kiwto'qiw kulaman klapis apaji-klu'ktitew paqtapa'q. 2015ek sapa'sikip A'se'kewey Tplutaqn teluek Punamujuiku's 31, 2020 naqa'ten mulink wejiaq piskwitk A'se'k. Tujiw sapa'sikek tplutaqn, Nopa Sko'siaewaqq nujo'tmi'tij waqma'tasin A'se'k toq-lukuti'tijik L'nu'k Piktuk kiskaja'tu'tij aqq elukwatmi'tij

Province's cleanup team has been working with PLFN during the design and planning of the cleanup. The project will remove harmful contaminated material from the land, water, sediment and wetlands and reconnect a clean A'se'k to the ocean. The causeway and dam at the mouth of the harbour will be removed and replaced with a bridge to allow a return to tidal and to permit boat access.

What's Contaminating Boat Harbour?

To return A'se'k to a tidal estuary, we need to remove contaminants from the water and sediments. This includes: metals (like zinc, mercury, and cadmium, which came from industry processes), PAHs (polycyclic aromatic hydrocarbons, which come from burning fuels), and dioxins and furans (which are organic materials probably from the Pulp Mill process). The dioxins and furans are of most concern, because exposure to these chemicals can affect human health.

The Facility, including Boat Harbour and its wetlands, contains more than one million cubic metres of sludge and sediment—enough to fill about 400 Olympic-sized swimming pools. Sediments with lower levels of contamination have been found outside the dam structure, in the estuary. No contaminated sediments related to the facility were found beyond the estuary or in the Northumberland Strait.

Across the bottom of Boat Harbour there is an average of less than 30 centimetres, or one foot, of contaminated sludge. It sits in a layer on top of the original A'se'k harbour bottom, but it does not go down into that clean harbour bottom. There is also contaminated material in the wetlands where untreated effluent was discharged in the early years of the mill operations when there was no treatment system.

ta'n tl-waqma'ten A'se'k. Ula lukwaqney jiklo'tew winjik koqoey maqamikew-iktuk, sam'qwan-iktuk, kejapu-iktuk aqq quta'sku'jk aqq waqme'k A'se'k apaji-te'wijuiktn apaqtuk. Asoqmi'pukek aqq Keplutasik etekl we'kupa'q jikla'tasital aqq ika'tasitew asumkwaqn kulaman sam'qwan lijuitew apaqtuk aqq walipotl kisi-l'ta'tal.

Koqoey Winamkwa'toq A'se'k?

Ktu' we'wasik apajiw paqtapa'q A'sek amujpa ejiklotumk winamu'k koqoey etek sam'qwan-iktuk aqq kejapu-iktuk. Staqa qasawo'ql (zinc, mercury, aqq cadmium wejiaql tel-lukutimk mulink), wejipkuta'ql (kesoqek wejipkuta'q wejiaq ta'n koqoey nu'kwa'tasik eltumk pulp) aqq dioxin aqq furan (mjikey wejiaq mulink). Dioxin aqq furan maw-we'tuo'tasikl mita ewla'tu'tij jajiko'qney.

Ula mulin, aqq we'kaw A'se'k aqq quta'sku'jk piamiw kji-pituimtlinaqn (1,000,000) metres etek plkow aqq kejapu – tepiaq wjua'tu'n newiskimtlinaqn (400) te'sikl aliko'ltimkl. Mu tetuji winapua'nuk Kejapu kis-piamteskmumk keplutaqn kikjiw paqtapa'q. Mu we'jitasinuk winamu'k kejapu wejiaq mulink kis-piamteskmumk paqtapa'q kiswa Northumberland Strait.

Elqanatek A'se'k suel nesiska'q cm (30 cm.) tel-temik winamu'k plkow etek. Weskittek elqanatek A'se'k katu mu siawi-kjita'sinuk lamamkutuk, me' waqame'k nekmewey.

Aqq elt winamu'k koqoey me' etek mko'qtuk mita mjikapu wejitkis mulink ke'sk mna'q ika'tasinukek ta'n tl-maliaptasitew aqq tli-anko'tasitew.

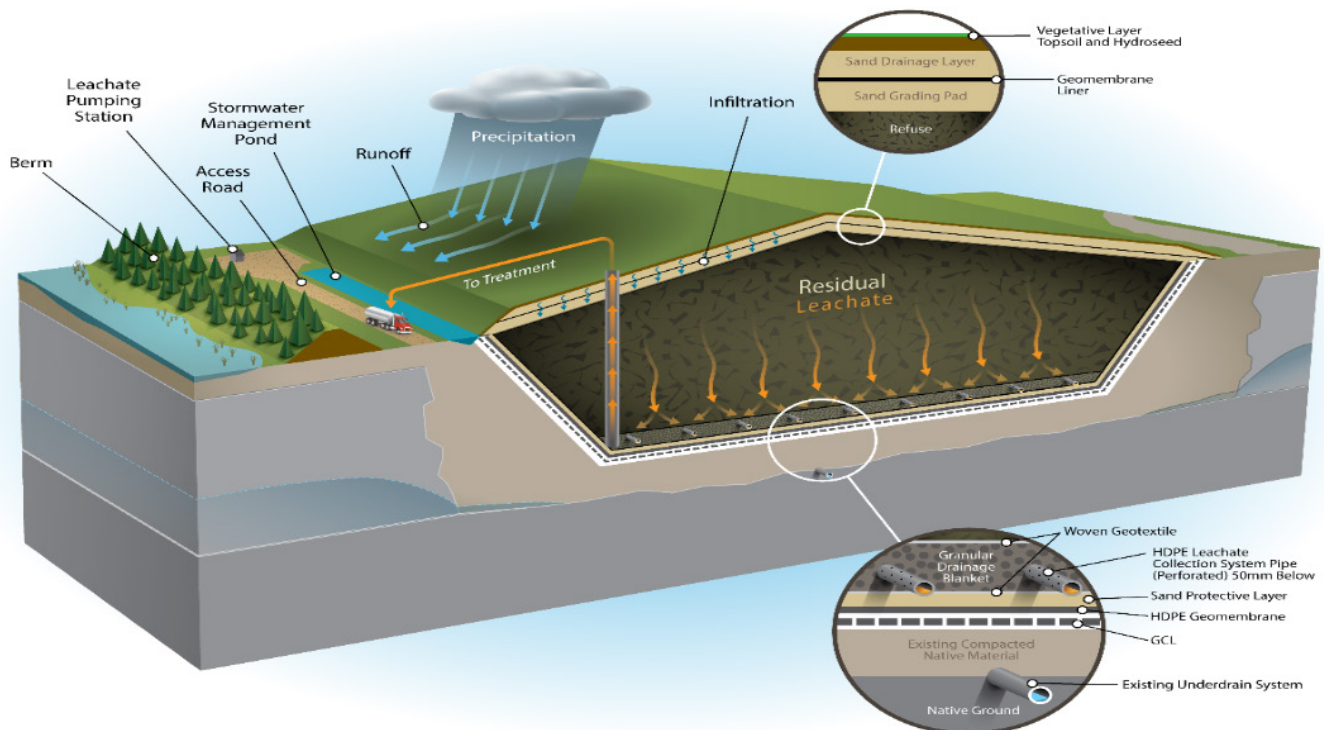
How Are We Cleaning up Boat Harbour?

Our plan is to remove the sludge from the bottom of Boat Harbour, using a dredge that will sit on a barge, and pump the sludge through a pipe to the existing containment cell on the site. In some cases, close to the shore or in the wetlands, we may use land-based heavy equipment to dig up the sludge and then transport it to the containment cell. Once in the cell, we will use large fabric bags, called Geotubes[®], to contain the sludge. Water, called leachate, will be drained from the sludge in the Geotubes[®]. The water will be treated before it is released to the estuary. The containment cell has received and contained Boat Harbour sludge since the mid-1990s. We have tested the site and we know it is working well as planned. However, we

Tal-waqma'tutesnen A'se'k?

Ta'n ketu' tla'taqatiek na taqqa'tasin plkow lamamkutuk A'se'k ewe'wmumk nqani'key ke'kutek walipot-iktuk ta'n naqani'katk plkow aqq siawa'sik ta'n etek kisitasik tli-anko'ten. Katu, kikjiw qasqe'k kiswa quta'sku'jk, we'wten mulqwemkewe'l mulqatasin plkow aqq layijo'tasin ta'n etek kisitasik tli-anko'ten. Ne'wt ika'q ta'n tli-anko'ten, we'wasital meski'kl misekne'l mun'ti'l teluisikl Geobags klnmn plkow. Jinqamistuten plkow pittek Geotubes-iktuk aqq mjikapu wejtk waqma'tten ke'sk mna'q elijuinuk paqtapa'q.

Etl-mawta'sikplkow wejiaq A'se'k ki's ewe'wasik tujiw 1990'sek. Menaqaj iloqaptasikip ke'sk mu sapa'tasinuk siaw-we'wasiktn, kejituek wla'sitew. Katu ketu' ankuat'uek, ika'tten pituweka'tasik aqq ta'n etl-mawo'tumk mjikapu wejtk. Kaq-



will make it safer by improving the cell liners and leachate collection system. At the end of the cleanup, leachate will be directed to a buried tank, which will be regularly pumped out and disposed of at an off-site wastewater treatment plant. The top of the containment cell will be capped, and long-term monitoring will continue after the cleanup to ensure the cell is working as planned.

The cleanup also includes:

- treating water as we dredge and manage sludge
- cleaning, inspecting and leaving in place or removing the pipeline from the Mill to Boat Harbour. PLFN have asked that the pipeline be removed in the area between Indian Cross Point and Highway 348. The Province is honoring this request
- removing or finding a new purpose for buildings on the site
- removing the causeway and replacing it with a concrete bridge and removing the dam.

The cleanup is expected to take somewhere between 4 and 7 years to complete and is expected to cost more than \$250 million.

waqma'tekemk, mjikapu liatew lamqamu'k etl-mawta'sik ta'n i'sikua'tumk aqq elkitasik ta'n etl-waqma'tumk. Ta'n etl-mawta'sik kepijoqa'tasitew aqq kaqi-waqma'tekemk siaw-jiko'ten tetpaq-lukwektn.

Ula waqma'tekemk wiaqtetew:

- Waqma'tumk sam'qwan pem-mulqwatmumk aqq maliaptasik "plkow
- waqma'lujik, iloqaptasijik tujiw siawi-nqalujik kisna ejikla'lujik piptoqwa'jik elakwejik weja'tekemk Mulin mi'soqo A'se'k.
- Piktuk L'nue'kati kwilutmi'tip jikla'tasin piptoqwa'jik Sukne'kati mi'soqo 348 Awti. No'pa Sko'sia telua'tipnik tlataqatitaq.
- Jikla'tasin kisna pilu'-we'wasiktn elakwekl kisi'kasikl na'te'l.
- Ejikla'tumk asoqmi'pukek toqo ika'tasiktn asumkwaqn aqq ejikla'tumk keplutasik.

Mko'titew waqma'tasik A'se'k etuk \$250 kji putuimtlnaqnn aqq newkl mi'soqo l'luiknekl-punqekl tl-pkija'tiketew.

How Do We Look at Impacts the Cleanup May Have on the Environment?

In early 2019, the federal government decided that the Impact Assessment Agency of Canada would examine the way we are planning the cleanup of Boat Harbour through a process called an Environmental Impact Assessment.

This document is a brief summary of our very detailed report, known as the Boat Harbour Remediation Project – Environmental Impact Statement, which is submitted to the federal government. That report is used to explain how we plan and make decisions so that during the cleanup, we reduce or avoid harm to the environment. It is important to make these plans before we start.

Our report provides a thorough assessment of the site conditions now, and how the cleanup project could affect the land and water, and the health of animals, birds, fish, plants and people. It talks about ways to eliminate or reduce any harm, and ways to manage and monitor changes to the environment that cannot be completely eliminated. This process has involved more than four years of research, planning, review, public engagement, and meetings with PLFN, universities, and provincial and federal government departments.

Tali-ankaptmumk Tl-we'ttua'ten Wsitqamuey Waqma'tekemk?

2019ek Kanataewey Kaplno'l kisutmi'tip Kanataewey Pipanuijkaqney wjit Tel-we'tua'tekemk iloqaptitaq ta'n ketu' tl-lukutiek waqama'tuek A'se'k wije'wmi'tij kisite'taqn teluisik Pipanuijkaqney wjit Tel-we'tua'tumk Wsitqamuey.

Ula wi'katikn toqwaqji'jka'toq pikwelk kis-wikasik kinua'taqney teluisik Weji-ila'tumk A'se'k Lukwaqney – Tel-we'tua'tumk Wsitqamuey Pipanuijkaqney aqq apu'ksi'tip Kanataewey Kaplno'l. Kinua'taqney-iktuk ewikasik ta'n tla'taqatitesnen aqq ta'n tli-ilutesnen koqoey ketu' tla'taqatiek kulaman ke'sk pem-waqma'taqatiek, ma' tetuji ajkna'tasinuk wsitqamuey. Keknue'k tmk lukwatasin ketu' tla'tekemk ke'sk mna'q poqji-waqma'tekemk.

Kinua'taqney-iktuk ewikasik pekaji-iloqaptasikip tela'mu'k etl-lukutimk nike', aqq ta'n waqama'tumk tl-wetua'ttew maqamikew aqq sam'qwan, aqq jajikoq'nmuew waisisk, jipji'jk, nme'jk, sqaliaqnn aqq mimajuinu'k. Wesku'tasik ta'n tli-jikla'ten kisna aji-apsa'tasin ajkno'qn aqq ta'n tli-maliaptiten aqq jiko'ten tel-pilua'sik wsitqamuey kulaman ma' kaqi-ksika'tasinukl. Ula tel-lukutimk wejiaq piamiw newipunqek pipanuijkatasik, ilutasik, iloqaptasik, wiaqa'lujik msit wenik aqq mawaknutmamkik Piktukewa'q L'nu'k , Espi-kina'matnewo'kuo'ml, No'pa Sko'sia aqq Kanata Kaplno'lk.

How Did We Look at Other Ways to Clean up Boat Harbour?

As we planned the cleanup, we broke the project down into smaller pieces and we looked to see what other ways and means were available for each of those pieces. The parts of the cleanup that we planned were:

- Waste Management – how we plan on cleaning up the waste and where do we put it?
- Dredging – how do we dredge the layer of sludge from the bottom of A'se'k and the wetlands?
- Wetland Management – how much sludge and sediment needs to be removed from wetlands?
- Water Management – how do we manage all water in A'se'k during the cleanup, including water that comes from the sludge during and after the cleanup?
- Bridge at Highway 348 – how big do we build it and what do we build it with?
- Infrastructure – how do we deal with the existing pipeline, site buildings and the dam?

Tal-kwilmeksip ta'n tl-waqma'ten A'se'k?

Pogji-ankite'tme'k ta'n tl-waqma'taqatiten, nasko'tuekip ketu' tl-lukutimk tujiw iloqaptmekip ta'n te's kis-tl-maliaptiten. Ula etekl pkesiknn kisite'tmekl ta'n tl-lukutiten:

- Ta'n tl-maliaptiten piwiaz – ta'n kisita'sultiek tl-waqma'tunen piwiaz aqq ta'n iko'ten?
- Naqni'kemk – tali-nqani'katten plkow etek elqanatek A'se'k aqq quta'sku'jk?
- Quta'sku'j Tl-maliaptiten – Ta'sik plkow aqq kejapu nuta'q jikla'tasin quta'sku'jk?
- Sam'qwan Tl-maliaptiten – Tal-maliaptiten sam'qwan etek A'se'k ke'sk waqma'tekemk, we'kaw sam'qwan wejiaz plkow-iktuk ke'sk pem-waqma'tekemk aqq kaqi-waqma'tekemk?
- Asumkwaqn ketu' ika'tasik 348 Awti – talki'k l'tuten aqq koqoey we'wten eltumk?
- Koqoey ki's elakwek – tala'laten ki's epultijik piptoqwa'jik, tala'ten kisi'kasikl aqq keplutaqn etekl?

Who did we Talk to in Planning the Cleanup?

Before and during the Environmental Impact Assessment process, we took steps to help the public understand our project plans by giving out project information, providing opportunities to speak about it and to consider issues raised. We consulted with the general public who were interested in the Project, and with the following groups:

1. Property owners bordering the Site Study Area
2. PLFN, other First Nation communities, and the Native Council of Nova Scotia
3. Residents, businesses and community groups
4. Staff and Management in Provincial and Federal Departments and Agencies
5. Boat Harbour Environmental Advisory Committee, including industry and academic experts
6. Provincial and Federal elected officials
7. Northern Pulp Workforce and Northern Pulp Executive
8. Environmental Services Association Maritimes
9. Northumberland Fisherman's Association
10. Industry and academic experts

Key issues raised included the safety of the containment cell; managing outdoor air quality; how we deal with the pipeline by cleaning and leaving it or removing it; and concerns about the long-term safety and monitoring of the environment.

The Province is committed to continuing conversations with the public and consultation with PLFN and other interested groups during and after the cleanup.

Wenik Etlewistu'tieksipnik Poqji-ankite'tme'k ta'n tl-waqma'taqatiten?

Ke'sk mna'q aqq ke'sk elukwasikek Tel-we'tua'tumk Wsitqamuey Pipanuijkaqney te'pi'ketuekip kinua'taqney ta'n ketu' tl-lukutiek kulaman msit wen nsittew ta'n ketu' tla'taqatiek, aqq iknmaqit wenik kisi-wsku'tmnew aqq ankite'tmnew koqoey kis-wi'tasik. Kisewistu'tie'k wenik ta'n ketu' kjijitu'tij tla'sitew koqoey aqq elt ula nekmewk:

1. Wenik ta'n alsutmi'tij maqamikew kikjiw etl pipanuijkemk
2. Piktuk L'nue'kati aqq pilue'l L'nue'kati'l aqq L'nuey Mawio'mi No'pa Sko'sia
3. Ta'n wenik wikultijik, lukwaqne'l aqq wutane'l mawio'mi'l
4. Lukewinu'k aqq nikanusk No'pa Sko'siaewe'l aqq Kanataewe'l mtmo'taqne'l aqq elukewkwi'tiji
5. A'se'k Nuji-ilumua'tiji Ta'n Tla'ten Wsitqamuey aqq elt nespiw ta'n wenik weli-kjijitu'tij lukwaqney aqq espi-kjijitaqatijik
6. Kisi-mknujuk nikanpukwultijik No'pa Sko'sia aqq Kanata Kaplno'le'l
7. Etl-lukutijik aqq Nikana'tu'tij Oqwatnukewey Palp (Northern Pulp)
8. Wta'nukewe'l Mawio'mi'l wjit Wsitqamuey
9. Northumberland Mawio'mi Nme'jue'ka'tite'wk
10. Ta'n wenik weli-kjijitu'tij lukwaqney aqq espi-kjijitaqatijik

Ankite'tmek teluitioq aqq sespit'emoq ta'n elekwa'q koqoey aqq tel-jikla'tumk mawk elt weja'tekemk kujum aqq ta'n teli tajiko'lti'oq aqq maqmikow.

No'pa Sko'sia melkuktmi'tit siawi-aknutma'tinu Piktukewaqq aqq pilue'k ta'n ketu-kjijitu'tij ta'n tel waqma'qatasik A'se'k.

How Do We Examine Possible Effects of the Project?

Baseline studies were carried out between 2017 and 2019 to understand the environment as it is today at the site, in and around Boat Harbour. The baseline studies were also used to update existing historical information and data. There have been more than 200 studies done at the site since it was constructed in 1967. Many of the effects listed below are caused by the cleanup and will end after the cleanup is finished.

Effects on Air

Baseline air quality and odour were studied by reviewing reports already done by others and running our own Outdoor Air Monitoring Program. We carried out air monitoring when we were doing nothing at the site, and when we were working on the site and disturbing water and sediments. We know what contaminants, or dust particles, might possibly be released into the outdoor air during the cleanup.

Dust particles can possibly be emitted from road traffic, stockpiles of material, grading of the land, and demolition activities. There is also the potential for odours, particularly sulphur-related odours, to be present throughout the remediation activities. These things can temporarily worsen air quality in and around Boat Harbour, but we can control them so that any worsening of air quality would be short-term and not widespread.

Air quality and odour will be monitored throughout the cleanup. We are taking every step to make sure we do not worsen air quality by:

- Managing dust emissions using water when needed
- Covering stockpiles to reduce emissions of particles and odours

Tal-pipanuijkatmek Tl-we'tua'luetew Lukwaqney?

Amskwesewe'l Pipanuijkaqnn elukwatasikipn 2017ek mi'soqo 2019ek weji-kjijitumk ta'n kiskuk telaskmaq Wsitqamuey etl-pipanuijkemk aqq kiwto'qiw A'se'k. Amskwesewe'l Pipanuijkaqnn elt ewe'wasikl keknu'tmasimk etek aknutmaqney kinua'taqn aqq kjijitaqney. Piamiw tapuiskimtlinaqn (200) pipanuijkaqne'l kisa'tasikl etl-lukutimk tujiw kisitasikek 1967ek. Pikwelk koqoey we'tua'luetew ewikasik ta'n wjiatew waqma'tekemk aqq kaqiatew kaqi-waqma'tasik.

Tl-wetua'ttuten Wju'sn

Ta'n telamu'k wju'sn aqq ta'n telima'q ankaptasikipn ta'n ki's kisa'tasikl pipanuijkaqnn aqq elt elukwatmekipn ninen we'wmek Kujmuk Jiko'tmumk Wju'sn. Elukwatmekip tel-jiko'tmek wju'sn ta'n tujiw mu tal-lukutiwe'k, aqq ta'n tujiw etl-lukutie'k aqq wetmo'tme'k sam'qwan aqq kejapu. Kejituek ta'n koqoey winjik kisma mjike'jl kisi-liatal wju'sn-iktuk ke'sk pem-waqma'taqatimk.

Mjike'jl kisi-wjiatal pemiaq koqoey awtik, ta'n elamko'tasik koqoey, ilikwatasik maqamikew, aqq sioqta'sik koqoey. Jiptuk na ksletew, aqq supliewima'tew ke'sk weji-ila'tumk etliaq. Ula koqoey wina'toq wju'sn A'se'k, katu kisa'tutesnen kulaman ma' pkiji-wina'sinuk aqq ma' amasek lianuk.

Ta'n tel-klu'lk wju'sn aqq ta'n telimaq jiko'tasitew ke'sk pem waqma'taqatimk. Msit koqoey wetnu'kwatmek kulaman ma' aji-ewla'muktnuk wju'sn ewe'wmek:

- Wet naqa'tumk mjikey alsiktn jel we'wmnew sam'qwan ta'n tujiw nuta'q
- Anquna'tunew ta'n koqoey elamko'tasik kulaman ma koqoey wkjianuk aqq ma' psetumitt
- Wji-naqa'tunew ta'n tel-pmiaq koqoey

- Taking traffic control measures (i.e. minimized vehicle traffic, reduced speed zones, reduced engine idling) to reduce dust.

Effects of Noise

Noise could increase at the site due to vehicle traffic, dredging activities, and other construction and demolition activities. All noise related to the cleanup is expected to be temporary. We plan to take steps to reduce noise by using equipment with mufflers, limiting site traffic and using noise barriers.

Effects of Light

The cleanup will require temporary lighting to make sure the working environment is safe. We will install downward facing lights and install motion sensors to ensure lights are only on when necessary. The use of light at night should not have much effect on the nearest homes.

Effects on Water

If we are not careful, the cleanup could contaminate groundwater and change the flow of groundwater. Contamination to groundwater could result from dredging activities, construction of access roads, and from a spill.

We will take steps to make sure we are not causing harm to groundwater by:

- Monitoring water levels and water quality
- Monitoring and managing waste in the containment cell to contain leachate
- Using Best Management Practices that are known to the industry

Surface water generally refers to brooks and streams. Surface water quality and water levels could be affected by contaminated water running over the Site, or a spill of leachate. The site is contaminated, and we want to ensure the contamination does not spread to water bodies that are currently not contaminated. Environmental controls such

(nkutey mu te'siktn tapanqnn pemita'ql, mu tli-ksikawita'qtn, aqq mu tlt'a'qtn wen wutapanq ta'n tujiw mu pematijmkwek) kulaman ma alsiktnuk mjikey.

Tl-wetua'luetew Kesikaweta'q

Aji-ksikaweta'tew etl-lukutimk mita pikwelkik pematijumkutijik, naqni'kemk, aqq piluey pemitasik kiswa sioqta'sik koqoey. Msit kesikaweta'q etliaq ta'n waqma'taik A'se'k na ma' pkijianuk. Ki's kisite'tmekip we'mnen kiskaja'taqn ta'n mu kesikaweta'nuk, aqq mu asite'tmnew awsamelk alatijmkwen wen.

Tl-wetua'luetew Wasoqnmamk

Ta'n tujiw waqma'tekemk nuta'tew wasoqmaqnn kulaman westatew lukwaqn-iktuk. Ika'tutesnen wasoqmaqnn ta'n nisu'kwekl aqq ika'tutesnen ta'n wasoqa'tikl pasik wen pemiej. Wasoqnmamk wela'kw ma' wetua'ttualaqi ta'n wejuwow wikultijik.

Tl-wetua'ttuten Sam'qwan

Mu tetpaqi-lukwatmuwk, tel-waqma'tekemk kisi-kaqi-wina'tew maqamikew-iktuk sam'qwan aqq kisa'tew se'k lijuin. Mejika'sik maqamikewey sam'qwan wjiatew naqni'kemk, eltasikl awti'l, aqq peji-kutajuik ta'n mu kelu'lktnuk koqoey.

Tla'taqatitesnen koqoey kulaman ma wina'tuek maqamikewey sam'qwan we'wmek:

- Jiko'tmnen tel-temik aqq ta'n tetuji-klu'lkw sam'qwan
- Jiko'tmnen aqq maliaptmnen ta'n mjikapu eliaq ta'n etl-mawta'sik plkow
- Ewe'wmumkl Maw Klu'lk Elukutimkl ta'n nike' kejitasikl

Ta'n tujiw wesku'tasik weskittek sam'qwan na wesku'tasikl jipu'ji'l aqq sipu'l. Weskittek sam'qwan ta'n telamu'k aqq ta'n tel-temik kisi-ajkna'lukutew mjikapu ta'n wejiaq etl-lukutimk, kiswa kutajuik mjikapu. Ta'n etl-lukutimk na etek koqoey winjik toqo mu menukekewek lian

as silt curtains and other commonly used best practices will help keep clean surface water clean. If an accident happens and surface water becomes contaminated, it will be treated and managed. Any negative effects from the project would be short term and there will be long term improvement of surface water quality after the cleanup is completed.

Effects on Land and Soil

Removing contamination from the Facility will have a positive impact on local soil, eliminating future impacts from contamination to land and soil. Soil quality at the temporary wastewater treatment facility could be impacted if a spill or release occurs, or by construction activities associated with replacement of the Bridge at Highway 348.

Best Management Practices to make sure we do not contaminate clean soil will include:

- In areas where the sludge is completely removed, the remaining sediment underneath will be tested to ensure it is clean
- Monitoring and managing the temporary wastewater treatment facility to ensure no release occurs
- Monitoring to ensure clean areas of the site remain clean
- Using erosion and sediment controls as needed

Effects on Plants and Animals

Historical and current land use has affected local habitats and some mammals and migratory birds, including Species at Risk. Project activities will have a direct impact on some plant communities. For example, digging will disturb the plants growing there now. There is also potential for invasive species to be transferred on site from construction equipment, vehicles, or workers

ta'n klu'lk sam'qwan etek. Tel-we'tua'tumk Wksitqamuey nkutey enqa'toq kejapu aqq pilue'l maw-klu'lk elukutimkl apoqnmattew waqmo'tmnew weskittekewey sam'qwan. Na't-koqoey tlitpiaq toqo liaq winjik ta'n etek klu'lkewey sam'qwan, maliaptasitew. Ta'n koqoey moqwe'jua'toq ula lukwaqn ma' pkiji-tla'sinuk aqq pkitapetten kisa'tasik klu'ktn weskittekewey sam'qwan elmiaq kaqi-waqma'tasik A'se'k.

Tl-wetua'ttuten Maqamikew aqq Tupkwan

Ejikla'tumk winjik koqoey wejiaq Kisi'kasik-iktuk na wla'ttew tupwan, aqq naqa'tew winjik lian maqamikew-iktuk aqq tupqwan-iktuk elmi'knik. Ta'n telamu'k tupkwan ta'n etl waqma'tasik maqatewey mjikapu na ma' wla'sinuk l'miaq paltijuik kiswa wsipekiaq, kiswa kis-tla'lukutew elukutijik etlitasik Asumkwaqn Awti 348.

Maw Klu'lk Elukutimkl kulaman ma' winamkwa'tuk waqame'k tupkwan wiaqtetal:

- Ta'n tett kaqi-jikla'tasik plkow, weskwiaq kejapu lame'k ankaptasitew waqme'ktn
- Jiko'ten aqq maliaptasitew etl-klo'tasik maqatewey mjikapu kulaman ma' wsipekianuk
- Jiko'ten waqame'kl etl-lukutimkl siaw-waqame'ktn
- Nuta'q wije'wten tepjike'k tela'tekemk wjit ejiklapuek aqq kejapu

Tl-we'tua'lukwi'titew Sqaliaqnn aqq Waisisk

Wejkwa'taqlik aqq nika' tel-wekasimk maqamikew wettua'toql etlqatmumkl etekl kikjiw aqq ta'n eymu'tijik waisisk aqq petqatmu'tijik jipji'jk we'kaw ta'nik pemi-ktmaqsenejik. Ula lukwaqn puktaqi-we'tua'ttal sqaliaqnn. Staqa, mulqutimk we'tua'ttal sqaliaqnn etlikutikl na'te'l nika'. Aqq elt se'k wejita'jik waisisk kiswa wejita'ql sqaliaqnn

into the project area. Invasive species could affect the ones that grow there naturally.

We will take protective steps to have no major long-term negative effects on wetlands, mammals and wildlife, the marine environment, migratory birds, and Species at Risk. The cleanup will result in a long term positive effect on local habitat within the Site area and will enable PLFN to use the land once again for traditional purposes.

Effects on Archaeological Resources

Archaeologists have told us that there are known and potential sites of archaeological significance in and around A'se'k. The cleanup has potential for disturbing these sites.

Planning carefully considers these known and potential sites with appropriate studies completed in any area where land disturbance will happen, as part of the Project.

Archaeological monitoring will be done during any ground disturbance to protect against any potential impact with archaeological resources. Our plans include stopping work and contacting the appropriate agencies if artifacts or human remains are discovered.

Effects on the Mi'kmaq of Nova Scotia

A Mi'kmaq Ecological Knowledge Study (MEKS) was conducted for the Project Site and surrounding area. The Study found that Mi'kmaq land and resource use was reported on the Project Site, and that hunting and gathering were the most common activities that occurred in the past. Current use is mainly to harvest fur-bearing creatures. Recreational water activities such as swimming and canoeing were historically common in the waters surrounding PLFN in Pictou Harbour, Chance Harbour, Boat Harbour, and other local waters. There has been little recreational water activity in and around Boat Harbour since its industrialization in 1967.

A Well Being Baseline Study was completed from October to December 2019 (Lewis,

pkisitasin lukwaqney-iktuk, wutapaqnuaq kiswa lukewinu'k etl-lukutijik. Se'k wejita'jik waisisk kiswa wejita'ql sqaliaqnn we'tua'ttaq koqoey tleyawik na'te'l.

Mlkuktitesnen mu ewla'tasiktn quta'sku'jk, waisisk eymu'tijik, apaqtukewey etlqatmumk, petqatmu'tijik jipji'jk aqq ta'nik pemi-ktmaqsenejik. Waqma'tekemk wjiatew kelu'lk wjit etlqatmumkl kikjiw etl-lukutimk aqq Piktuk L'nue'kati apajiw kisi-we'wtaq maqamikew wjit netuklimk.

Tel-wetua'tten Aknutmaqñ wejiaq Panqamika'tumkl Sa'qewe'l Koqoe'l

Nuji-panqamika'tu'tij Sa'qewey Koqoey telimuksiekipnik etekl kejitasikl aqq me' mna'q we'jitasinukl kekñue'kl panqamika'tekemkl etekl A'se'kl. Waqma'tekemk kaqi-ksika'tal etekl panqamika'tekemkl. Kisite'tasikip ula lukwaqney wiaqtetew ta'n menaqaj tli-iloqaptasital kejitasikl aqq me' mna'q we'jitasinukl panqamika'tekemkl etekl ta'n etl-waqma'tekemk. Nuji-panqamika'tu'tij Sa'qewey Koqoey jiko'taqatitaq elmiaq mulqutimk kulaman ma' ksika'sinuk panqamika'tekemkewey aknutmaqñ wjit Sa'qewey Koqoey. Kisite'tasikip naqa'ten lukwaqñ aqq kinua'tua'teketen elmiaq we'jitasik sa'qewey koqoey kiswa wutqutaqnn.

Tl-we'tua'lukwi'titew Mi'kmaq Wikultijik No'pa Sko'sia

Pipanuijkaqñ wjit Mi'kmawey Kjjitaqñ wjit Wsitqamuey (A Mi'kmaq Ecological Knowledge Study (MEKS)) kisa'tumkis Etl-lukutimk aqq kiwto'qiw. Ula pipanuijkaqñ we'jitu'tis Mi'kmaq ewe'wmi'tis ula maqamikew aqq koqoey wejiaq maqamikew-iktuk aqq etli-netuklimkis wejkwat'agnik. Me' kiskuk ewe'wasik loqte'knikaluj waisisk wjit ankuowey. Wejkwat'agnik amaltia'kwemkis sam'qwan-iktuk aqq tekismimkis aqq alisukwimkis kiwto'qiw Piktuk L'nue'kati, Puknikpejk,

Denny et al, January 2020) to determine and document baseline wellness conditions for PLFN community members. The Well Being Study reports that the operation of the Facility, and the contamination it has caused, led to a major loss of cultural heritage and practices connected to the natural environment.

The passing along of knowledge between generations has been disrupted and lost. This represents a significant loss of cultural identity and overall well being for the community.

Cleanup efforts may have short-term impacts to the PLFN community through increased noise, light and potential odours. As described in the sections above, these potential negative impacts will be minimized and managed as much as possible. The long-term environmental changes resulting from the cleanup of Boat Harbour and the surrounding area will be positive: the contamination will be removed and Boat Harbour will be returned to a tidal estuary. This will allow the land to be re-established as an area used for traditional recreation, fishing, hunting and gathering medicines, foods and herbs, as well as for physical, mental, spiritual and emotional purposes by PLFN and the broader Mi'kmaq community.

The loss of A'se'k more than 50 years ago was devastating to the community. The long term storage of impacted sediment and material in the existing containment cell may not completely undo this loss, but a clean Boat Harbour will be a positive improvement. The use of the containment cell for the storage of waste dredged from Boat Harbour has been happening since the mid-1990s. The containment cell will be upgraded and improved before its ongoing use during the project. It will be capped and closed at the end of the project.

The existing containment cell and the current levels of contamination in Boat Harbour present a recognized negative impact on the

Menpekwijk aqq A'se'k. Nike' mu pikwelknuk etl-amaltia'kwemk sam'qwan-iktuk kiwto'qiw A'se'k tujiw panta'sikek mulin 1967ek.

Amskwesewey Wleyutiey pipanuijkaqn kisa'tasiksip Wikewiku's mi'soqo Kesikewiku's 2019ek (Lewis, Denny et al, January 2020) weji-kjijitumk aqq ew'kmumk amskwesewey wleyutiey wjit Piktuk L'nue'kati. Wleyutiey pipanuijkaqn we'jitu'tij tujiw Mulin panta'sikek aqq ta'n tel-winamkwa'tekek pikweli-ksika'toq L'nuey telo'ltimk aqq tel-lukutimk wettaqne'wasik wksitqamu'k. Tel-kina'muemk L'nui-kjijitaqn o'pla'tasik aqq keska'q. Pikweli-ksika'sik teli-l'nuimk, teli-l'nuo'ltimk aqq wleyuti l'nue'katik.

Waqma'tekemk maqatewi-wetuo'ten Piktuk L'nue'kati mita aji-ksikaweta'tew, kesatetew aqq jiptuk ksletew. Nkutey wesku'tasikip ke'kwe'ke'l, wjinu'kwalsiten ula koqoey mu te'siktn aqq menaqaj pma'tasiktn. Pkiji-wlapetten teli-ila'tumk wsitqamuey wejiaq waqama'tumk A'se'k aqq kiwto'qiw. Piktukewaqq L'nu'k aqq se'k L'nu'k kisi-apaji-we'wtaq maqamikemuew wjit amaltia'kwemk, ekwitamemk, netuklimk, aqq mawo'tumk l'nui-mpisunn, mijipjewey aqq piteweyaqs'il aqq elt wjit Mtininey, Telita'simkewey, Nsituo'qney aqq Ketlamsitasimkewey wjit Piktuk L'nue'kati aqq msit L'nue'kati'l.

Entu'tijek A'se'k piamiw Naniskekipunqekl metua'lukwi'tis Piktuk L'nue'kati. Pekije'k etli-anko'tasik kejapu aqq piluey koqoey me' etek etl-klo'tekemk ma' jikla'tuk ta'n koqoey kisi-n'tu'tij katu waqame'k A'se'k wla'lukwi'titew. Tujiw 1990'sek ewe'wasikl etl-klo'tekemkl kelo'tmumk winamu'k koqoey weja'tumk A'se'k. Etl-klo'tekemk lukwasitew aqq ila'tten ke'sk mu siaw-we'wasinuk pem-lukutimk. Tujiw pkijoqa'tten kaqi-lukutimk.

Ki's etek etl-klo'tekemk aqq te'sik winamkwa'tekek A'se'k kejitumk me' pemi-ewla'toq ta'n Mi'kmaq No'pa Sko'sia teli-we'wmi'tij L'nue'l koqqwaja'taqnn. Ne'wt

Mi'kmaq of Nova Scotia's ability to practice aboriginal rights. Once the site is cleaned, the ability to practice these rights will improve. While the containment cell may still have an ongoing impact, this will be partially addressed by improving the cell. It will be capped when the project is finished and the Province will be responsible to manage, monitor and maintain it on an ongoing basis.

The Province has committed to transfer the land on which the Facility is located to PLFN after it is cleaned up. As well, the Province is working toward the transfer of multiple parcels of provincially owned property around the estuary to PLFN. The transfer of these lands to PLFN is meant to help offset the current and future limits on use of the land where the containment cell is located.

Effects on Human Health

Project activities are expected to cause minor disturbances to local residents through temporarily increased traffic volumes and impacts related to noise, light, and air emissions. These impacts, and the measures that will be taken to address them, are described in more detail above.

Positive effects of the Project on human health include the closure of the Facility and containment of dredged contaminants, resulting in a long term reduction in odour and an improvement in air quality.

What are the Next Steps?

The Environmental Impact assessment is available for your review and comment on the Impact Assessment Agency's website: <https://iaac-aeic.gc.ca/050/evaluations/proj/80164>.

We hope to have a decision on the project in early 2021. A positive decision would allow cleanup activities to start by late 2021.

kaqi-waqma'tasik, ta'n tel-we'wmumkl ula koqqwaja'taqnn aji-wla'sitew. Tlia'j na etl-klo'tekemk ewla'tekek, aji-wla'sitew telo'ltimk mita etl-klo'tekemk lukwasitew aqq ila'tten. Pkijoqa'tten kaqi-lukutimk aqq No'pa Sko'sia ika'tuaten ne'kaw siaw-pma'tunew, jiko'tmnew aqq maliaptmnew.

No'pa Skosia kisutmi'tip apaji-iknmuaten Piktuk L'nue'kati maqamikew ta'n etek mulin ne'wt kaqi-waqma'tumk. Aqq elt, No'pa Sko'sia pem-lukwatmi'tij iknmuanew Piktuk L'nue'kati piluey maqamikew No'pa Sko'siaewey Kaplno'l alsutk kikjuk paqtapa'q. Ula maqamikew iknmuj Piktuk L'nue'kati wjit teli-ntu'tij we'wmnew nika' aqq elmi'knik maqamikew tan etl-klo'tekemk etek.

Tel-we'tua'tumk Wleyuti

Etl-lukutimk lukwaqn kejitumk kisa'tew aji-sespena'q wjit wenik wikultijik kikjiw mita ksikaweta'tal ajelkl assuayo'tekek pemita'ql aqq aji-ksikaweta'tew, ksattetew aqq winima'tew. Ula koqoey wetua'luek aqq ta'n tl-maliaptiten ki's-wesku'tasikip ke'kwe'ke'l.

Ta'n koqoey wji-wliatew wjit wleyuti wejiaq ula tel-lukutimk na pkijoqa'ten lukwaqney aqq kisi-mulqwasik winamu'k koqoey menaqaj maliaptasitew, kulaman siaw-jikla'sitew keslek aqq aji-waqme'tew wju'sn.

Tal-lukutiten?

Tel-we'tua'tumk Wsitqamuey Pipanuijkaqney etek kitmn aqq tliman ta'n telita'sin kompu'tl-iktuk Mtmo'taqney wjit Tel-we'tua'tumk Pipanuijkaqney (Impact Assessment Agency's website) pasik kwilmn: <https://iaac-aeic.gc.ca/050/evaluations/proj/80164>.

Ajipjutmek kaqi-kisutasiktn ula lukwaqney atel pqojiaq 2021. Sapa'sik kisi-pqoji-waqma'tten A'sek ke'sk mu kaqianuk 2021.

Annex 3.6

Correspondence Regarding IAAC Consultation Work Plan (Email and Letter)

From: [Maclean, Lachlan \(CEAA/ACEE\)](#)
To: [Paul, Andrea \(Ext.\)](#)
Cc: [Smith, Melanie \(CEAA/ACEE\)](#); bhebert@mckigganhebert.com; [Tombs, Joanna \(CEAA/ACEE\)](#); [Tutty, Bridget R;](#) [Rumbolt, Sara \(HC/SC\)](#); [Cogle, Betty](#); [MacNeil, Jack](#); [Flanagan, Jason](#); [Zwicker, Stephen \(EC\)](#); [Pardy, Larry \(AADNC/AANDC\)](#); [Lewis, Beth J](#); [Swain, Ken](#); [Swaine, Angela](#); [Benedict, Matthew \(CEAA/ACEE\)](#)
Subject: Boat Harbour Remediation Project Consultation Work Plan
Date: September 24, 2019 2:45:51 PM
Attachments: [PLFN Boat Harbour Consultation Work Plan.pdf](#)

Dear Chief Paul:

Attached please find a letter from the Impact Assessment Agency of Canada, whose purpose is to:

- share a summary of the information we currently have regarding the nature and extent of Aboriginal or treaty rights of Pictou Landing First Nation and the potential impacts of the Boat Harbour Remediation Project on those rights, so that you may review it and provide comments; and
- share with you the draft consultation work plan in relation to the Boat Harbour Remediation Project so that you may review it and provide comments.

If you have any questions please do not hesitate to contact me.

Yours sincerely,
Lauchie

Lachlan MacLean, PhD.

Project Manager, Atlantic Region
Impact Assessment Agency of Canada / Government of Canada
lachlan.macleam@canada.ca / Tel : 902-426-8697

Gestionnaire de projets, région atlantique
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of Canada

Gouvernement
du Canada

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September 24, 2019

Agency File No.: 80164

Chief Andrea Paul and Council
Pictou Landing First Nation
6533 Pictou Landing Road, RR 2
PO Box 55, Site 6
Trenton, NS B0K 1X0

SUBJECT: Consultation Work Plan for the Federal Environmental Assessment of Boat Harbour Remediation Project

Dear Chief Paul and Council:

The purpose of this letter is:

- (1) to share, for your review and comment, a summary of the information the Impact Assessment Agency of Canada has regarding the nature, scope and content of Pictou Landing First Nation's Aboriginal or treaty rights and the potential impacts of the Boat Harbour Remediation Project on those rights; and
- (2) to share with you, for your review and comment, the draft consultation work plan, which outlines the Agency's proposed approach for engaging with and consulting Pictou Landing First Nation for this Project.

Information Available to the Crown on Potential Impacts of the Project on Pictou Landing First Nation's Aboriginal or Treaty rights

The information available to the Crown with respect to the potential adverse impacts of the Project on the Aboriginal or treaty rights of Pictou Landing First Nation is outlined in Attachment 1. Based on this information, the Agency has determined that in relation to the Project, consultation with Pictou Landing First Nation should be undertaken at the higher end of the consultation spectrum. Please review this information and provide us with any additional information that you feel would contribute to this analysis.

Consultation Work Plan

The Agency proposes to consult under the Consultation Terms of Reference with Pictou Landing First Nation, as described in the consultation work plan in Attachment 2. The activities outlined in the proposed work plan are flexible, and we invite your input and collaboration in refining the approach.

The upcoming key stages of the environmental assessment during which additional consultation activities will occur are: the review of the Environmental Impact Statement and the review of the draft Environmental Assessment Report and potential conditions.



Next Steps in the Federal Environmental Assessment

On April 10, 2019, the Agency wrote to advise you that the Project is subject to an environmental assessment under the *Canadian Environmental Assessment Act, 2012* and invited comments on the draft Environmental Impact Statement Guidelines. On May 10, 2019, Pictou Landing First Nation provided comments on the draft Environmental Impact Statement Guidelines. The Agency sent a response on May 31, 2019, outlining how these comments were considered in the final Environmental Impact Statement Guidelines. The final guidelines were posted to the Agency Registry and provided to the proponent on May 31, 2019. The proponent is currently preparing the Environmental Impact Statement. In the meantime, consultation activities will continue, as noted in the proposed work plan.

Participant Funding

Prior to the proponent's submission of its Environmental Impact Statement, Pictou Landing First Nation will have the opportunity to apply for funding through the Agency's Participant Funding Program, which is intended to support your community's ongoing participation in the environmental assessment process and associated consultation activities described in the work plan. Detailed information on how to apply for participant funding and an application will be included in a subsequent letter. Meanwhile, to obtain additional information on the Participant Funding Program, please contact Matthew Benedict at 613-408-7318 or by email at Matthew.Benedict@canada.ca.

IMPORTANT NOTE: In accordance with the *Canadian Environmental Assessment Act, 2012*, comments received and other documents submitted or generated to inform the environmental assessment are part of the project file. Accordingly, information submitted to the Agency that is relevant to the environmental assessment of the Project is available to the public upon request and may also be posted on the online public registry under reference number **80164**. The Agency will remove information, such as home addresses, telephone numbers, email addresses and signatures prior to public disclosure. Should you provide any documents that contain confidential or sensitive information that you believe should not be made public, please contact Lauchie MacLean directly at 902-426-8697 or by email at Lachlan.Maclean@canada.ca.

To discuss the proposed consultation approach, or any other matter related to the consultation or environmental assessment, you can contact Lauchie MacLean directly at 902-426-8697 or by email at Lachlan.MacLean@canada.ca.

Yours sincerely,

<Original signed by>

Mike Atkinson
Regional Director, Atlantic Region

Attachments:

1. Summary of information available to the Crown with respect to the potential adverse impacts of the Project on Pictou Landing First Nation's Aboriginal or treaty rights
2. Proposed consultation work plan

c.c.: M. Smith, Canadian Environmental Assessment Agency
J. Tombs, Canadian Environmental Assessment Agency
M. Benedict, Canadian Environmental Assessment Agency
B. Tutty, Nova Scotia Environment
S. Rumbolt, Health Canada
B. Cogle, Fisheries and Oceans Canada
J. MacNeil, Fisheries and Oceans Canada
J. Flanagan, Transport Canada
S. Zwicker, Environment and Climate Change Canada
L. Pardy, Indigenous and Northern Affairs Canada
B. Lewis, Nova Scotia Office of Aboriginal Affairs
K. Swain, Nova Scotia Lands



Attachment 1

Summary of information available to the Crown with respect to the potential adverse impacts of the Boat Harbour Remediation Project on Pictou Landing First Nation's Aboriginal or Treaty rights

The following information will be used to inform the Crown's approach to engaging and consulting Pictou Landing First Nation in the context of the Boat Harbour Remediation Project:

- Participation in the Made-in-Nova Scotia process (Agreement signed, 2010).
- Recognition of a treaty right to fish for a 'moderate livelihood' which flows from the Peace and Friendship Treaties and of an Aboriginal right to fish for food, social and ceremonial purposes.
- Recognition that the Mi'kmaq of Nova Scotia consider the province and the offshore as their traditional territory and assert a title claim to the province and the offshore.
- Recognition that the Mi'kmaq assert Aboriginal and treaty rights to hunt and gather throughout their traditional territory.
- Recognition that rights-based activities (hunting, fishing and gathering) occurred within the project footprint in the recent and historical past, and that there are current use activities ongoing in areas near the Project (June 2018 Boat Harbour Remediation Mi'kmaq Ecological Knowledge Study).

The following is a summary of the potential adverse impacts of the Project on Pictou Landing First Nation's Aboriginal or Treaty rights:

- Temporary disturbance due to noise, dust, odour, and visual alteration of the area.
- Long-term disturbance due to storage of waste material adjacent to Pictou Landing First Nation Reserve Lands (e.g., visual disturbance, loss of use, etc.).
- Effects to the well-being of Pictou Landing First Nation due to the storage of waste proximal to the community.

The following is a summary of the potential positive aspects of the Project on Aboriginal or treaty rights:

- Long-term restoration of Boat Harbour, leading to the potential future use of the area for the exercise of fishing, hunting, gathering and other cultural and traditional use activities.

If you have additional information with regard to the potential impacts or benefits of the Project on Pictou Landing First Nation, including the exercise of Aboriginal or treaty rights in relation to the Project, please provide this information to the Agency so that we may refine our understanding and adjust the consultation approach, as necessary.

Attachment 2

Proposed Consultation Work Plan – Pictou Landing First Nation

1. Introduction

This proposed Consultation Work plan is intended to guide a meaningful two way dialogue during the environmental assessment of the Boat Harbour Remediation Project between the Agency (on behalf of the federal Crown) and Pictou Landing First Nation (on behalf of all potentially affected Mi'kmaq Bands in Nova Scotia). It communicates the federal Crown's objectives for consultation, the proposed structure for integrating consultation into the environmental assessment, and the proposed activities in which the Pictou Landing First Nation will be able to participate. This document is intended to be a "living document" that can be updated as necessary during the environmental assessment.

The Agency's role with respect to Crown consultation includes:

- Develop and implement a Crown consultation plan that is consistent with a Whole of Government approach involving all relevant federal regulatory departments, agencies and expert authorities in consultation activities with Pictou Landing First Nation, as appropriate.
- Coordinate the involvement of provincial regulatory departments and agencies in the consultation process with Pictou Landing First Nation as appropriate, including Nova Scotia Office of Aboriginal Affairs.
- Lead and coordinate federal consultation efforts in a manner that appropriately considers and responds meaningfully to issues and concerns raised by Pictou Landing First Nation.
- Compile the Crown consultation record, including a tracking table for issues and concerns raised, and coordinate input and responses from other federal or provincial regulatory departments, agencies and expert authorities, where appropriate.
- Relay information and concerns to other relevant authorities and/or jurisdictions where these concerns fall outside the scope of the environmental assessment and/or consultation process.
- Coordinate discussions amongst the regulatory departments and agencies for the purposes of identifying a lead Crown consultation coordinator for activities that may continue into the post-environmental assessment regulatory phase, if required.

The role of federal authorities with respect to Crown consultation includes:

- Department of Fisheries and Oceans anticipates that authorizations under subsections 34.4(2)(b) and 35(2)(b) of the *Fisheries Act* may be required as a result of alterations to fish habitat.
- Transport Canada anticipates authorization under the *Navigation Protection Act* will be required for decommissioning the dam.



2. Federal Crown's Consultation Objectives

- To establish a positive and productive working relationship with Pictou Landing First Nation during the environmental assessment.
- To communicate with the Pictou Landing First Nation about the Project and developments during the environmental assessment in a timely manner.
- To determine how the Pictou Landing First Nation would like to be consulted during the environmental assessment and establish a flexible and responsive consultation approach.
- To work with the Pictou Landing First Nation to:
 - 1) identify potential environmental effects of Project, including those on current use of lands and resources for traditional purposes, health and socio-economic conditions and heritage resources;
 - 2) identify potential impacts of the Project, both positive and negative, on the exercise of Aboriginal and Treaty rights, and;
 - 3) ensure that options for avoiding, mitigating, or accommodating potential adverse impacts related to the Project are meaningfully considered.
- To work with Pictou Landing First Nation and the proponent to respond to specific questions and requests regarding issues raised related to the Project.
- To listen to the concerns raised, and meaningfully consider the feedback, perspectives and issues raised by Pictou Landing First Nation to inform decision making in relation to the Project.

We invite Pictou Landing First Nation to share your consultation objectives with the Agency.

3. Consultation Approach with Pictou Landing First Nation

The Agency understands that typically, the Kwilmu'kw Maw-klusuaqn Negotiation Office (KMKNO), on behalf of the Assembly of Nova Scotia Mi'kmaq Chiefs, represents the interests of, and leads consultation on environmental assessments for 11 Mi'kmaq communities in Nova Scotia, including Pictou Landing First Nation. The Agency also understands that Millbrook First Nation and Sipekne'katik First Nation typically represent themselves in consultations with the Crown.

The Agency acknowledges that in April 2019, the Assembly of Nova Scotia Mi'kmaq Chiefs passed a resolution authorizing Pictou Landing First Nation to lead consultation on its behalf (13 Mi'kmaq communities) for the environmental assessment of the Boat Harbour Remediation Project. The Agency will continue to consult with Pictou Landing First Nation and notify KMKNO, Millbrook First Nation and Sipekne'katik First Nation

of key milestones, throughout the environmental assessment process. As the lead for consultation, Pictou Landing First Nation will have the opportunity to apply for an aggregate level of funding through the Agency's Participant Funding Program, to support your full and comprehensive participation in the environmental assessment process and associated consultation activities set out in the work plan, on behalf of the Nova Scotia Mi'kmaq. To support Pictou Landing First Nation's early participation in the environmental assessment, the Agency also provided a grant, in the amount, of \$10,000.

4. Integrating Consultation into the Environment Assessment

Table 1 provides a description of the main steps in the federal environmental assessment and a description of how the federal Crown proposes to work with your community to integrate consultation activities into those steps. This table describes what Pictou Landing First Nation should receive, have access to or expect from the Agency, on behalf of the federal Crown; and what Pictou Landing First Nation could share and contribute to the environmental assessment.

Environmental assessments conducted by the Agency are subject to timelines under the *Canadian Environmental Assessment Act, 2012*. The Minister of the Environment must make a decision within 365 days of government time following the Notice of Commencement. Consultation activities are proposed in keeping with these timelines.

Table 1: Integrating Consultation into the Environmental Assessment¹

Environmental Assessment (EA) Step	Description of the Environmental Assessment Step	What Pictou Landing First Nation should receive, have access to or expect FROM the federal Crown	What Pictou Landing First Nation may provide TO the federal Crown (or DO)
EA Commencement (following issuance of the Environmental Impact Statement (EIS) Guidelines)	Continuing consultation	<ul style="list-style-type: none"> • Ongoing dialogue (e.g. status updates, consultation plan development, information on the participant funding program, etc.) 	<ul style="list-style-type: none"> • Ask questions, share information and make recommendations (e.g., on the consultation plan, participant funding application, etc.)
EIS Review	<p>The Agency conducts an initial scan of the EIS to ensure that it has enough information to begin the technical review and consultation.</p> <p>The adequacy of the EIS is then assessed in detail with respect to:</p> <ul style="list-style-type: none"> • identified potential adverse environmental effects of the Project (including cumulative effects); • identified technically and economically feasible measures that mitigate those effects; • evaluation of whether the Project will result in any significant adverse environmental effects; and • description of a follow-up program. 	<ul style="list-style-type: none"> • Opportunity to provide comments on and discuss the proponent’s analysis and conclusions with respect to environmental effects of the Project and issues raised by Pictou Landing First Nation. • Opportunity to provide comments on the EIS and EIS Summary prior to the public comment period, and other supporting documents, as appropriate. • An invitation to participate in technical working groups for the review of the EIS, and supporting studies, where available. • Opportunity for direct discussions between your community and the Crown as necessary (e.g. teleconferences and/or meetings with Chief and Council, community open houses) 	<ul style="list-style-type: none"> • Comments on the EIS and the supporting studies where available, and the adequacy of the proponent’s responses to your concerns. • Decide to participate in technical working groups. • Provide your views on the accuracy of the proponent’s information about issues you have raised and on any proposed ways of addressing those impacts.

¹ (Adapted from the BC First Nations Environmental Assessment Technical Working Group Toolkit Workshop)

Environmental Assessment (EA) Step	Description of the Environmental Assessment Step	What Pictou Landing First Nation should receive, have access to or expect FROM the federal Crown	What Pictou Landing First Nation may provide TO the federal Crown (or DO)
EA Report Review	<p>The EA Report presents the Agency's views on the findings of the EA including conclusions and recommendations regarding the adverse environmental effects that are likely to result from the Project, appropriate measures that would mitigate those effects, the significance of residual effects after implementation of the mitigation measures as well as the components of the follow-up program. The EA Report also includes a summary of the Crown-Indigenous consultation process, mitigation or accommodation measures for effects on the Pictou Landing First Nation and other Mi'kmaq First Nations of Nova Scotia, including potential impacts on Aboriginal or treaty rights, views and concerns expressed by Mi'kmaq First Nations of Nova Scotia and the Crown's response to those concerns.</p> <p>The Agency drafts potential conditions that would be required of the proponent, if the Project is to proceed. Some of these conditions may address effects on Mi'kmaq First Nations of Nova Scotia, including Pictou Landing First Nation and impacts on their Aboriginal or treaty rights.</p>	<ul style="list-style-type: none"> • Opportunities to discuss the potential impacts of the Project on Aboriginal or treaty rights and other environmental effects on Mi'kmaq First Nations of Nova Scotia, including Pictou Landing First Nation and associated mitigation and accommodation measures. • Opportunity to discuss key environmental effects and mitigation measures that may result in enforceable conditions that may become part of the Minister's EA Decision Statement. • Opportunity to provide comments on the draft EA Report. • Opportunity to provide comments on and discuss potential federal conditions that may be included in the Minister's Decision Statement should the Project be allowed to proceed. • Opportunity for direct discussions between your community and the Crown as necessary (e.g. teleconferences and/or meetings with Chief and Council, community open houses). • Response in writing as to how the federal Crown has considered your submissions and concerns. 	<ul style="list-style-type: none"> • Comments on the potential impacts of the Project on Aboriginal or treaty rights and other environmental effects on Mi'kmaq First Nations of Nova Scotia, including Pictou Landing First Nation, and associated mitigation and accommodation measures. • Comments on the ability of the potential conditions to address potential environmental effects on Pictou Landing First Nation and/or potential impacts on your Aboriginal or treaty rights. • Comments on whether there are outstanding issues that you feel have not been addressed. • Comments on the manner in which issues raised throughout the EA have been addressed, notably by providing comments on the issues tracking table in the EA Report appendix.

Environmental Assessment (EA) Step	Description of the Environmental Assessment Step	What Pictou Landing First Nation should receive, have access to or expect FROM the federal Crown	What Pictou Landing First Nation may provide TO the federal Crown (or DO)
Minister's EA Decision	<p>The Minister of the Environment considers the EA Report, including comments received from Pictou Landing First Nation and determines whether, taking into account the mitigation measures proposed, the Project is likely to cause significant adverse environmental effects.</p> <p>Should the Minister of the Environment issue a Decision Statement allowing the Project to proceed, the Minister would also include legally binding conditions with which the proponent must comply to implement appropriate mitigation measures and a follow-up program.</p>	<ul style="list-style-type: none"> • Notification of the Minister's EA decision and any final federal conditions 	
Throughout the Environmental Assessment		<ul style="list-style-type: none"> • Exchange of information, notifications and correspondence related to the EA process. • Opportunity to provide traditional or other knowledge about the environment and possible effects to be considered in the EA. • Timely responses to inquiries and written reasons for decisions when requested. • Opportunity to collaborate to identify potential adverse impacts to Mi'kmaq First Nations of Nova Scotia, including Pictou Landing First Nation's Aboriginal or treaty rights, traditional uses, and generating options for changes to the Project or other forms of accommodation. 	<ul style="list-style-type: none"> • Share information regarding the potential adverse impacts of the Project on your Aboriginal or treaty rights and traditional uses. • Provide any traditional knowledge that may contribute to the EA. • Make recommendations on how to avoid, mitigate or accommodate for impacts to your rights. • Meet with federal representatives to discuss your issues of concern. • Request reasons for decisions. • Make submissions to decision

Environmental Assessment (EA) Step	Description of the Environmental Assessment Step	What Pictou Landing First Nation should receive, have access to or expect FROM the federal Crown	What Pictou Landing First Nation may provide TO the federal Crown (or DO)
		<ul style="list-style-type: none"> • Consideration of changes to proposed government action to address effects on Mi'kmaq First Nations of Nova Scotia, including Pictou Landing First Nation (e.g. attaching terms and conditions to permits or authorizations, where possible and appropriate). • Opportunities for additional meetings to address concerns, as appropriate. 	maker(s).
In preparation of regulatory phase, if required		<ul style="list-style-type: none"> • Opportunity to engage in discussions with federal authorities and regulatory departments and agencies, coordinated by the Agency. • Share information concerning potential permits or authorizations in relation to the Project as proposed. • Notification of which federal department will take the lead on potential consultation activities related to the potential regulatory phase. • Provide in the EA Report, a list of concerns raised during the EA that may be addressed in the regulatory phase, should the Project proceed, related to adverse environmental effects or adverse impacts on Mi'kmaq First Nations of Nova Scotia, including Pictou Landing First Nation's Aboriginal or treaty rights. 	<ul style="list-style-type: none"> • Meet with federal representatives to discuss the regulatory phase and potential consultation activities. • Present information relevant to the regulatory phase to federal authorities. • Ask questions on the roles and responsibilities of federal departments with respect to the regulatory phase, should the Project proceed.

Annex 3.7

Email Ken Swain to Chief Andrea Paul of October 17, 2019 and Related Correspondence

Swaine, Angela

From: Swain, Ken
Sent: October 17, 2019 11:43 AM
To: Andrea Paul
Cc: 'Twila Gaudet'; Huston, Justin E; Martin, Frances R; 'Towers, Julie K'; 'mike.atkinson@ceaa-acee.gc.ca'; Fewer, Jo Ann; Swaine, Angela; Lewis, Beth J; File Boat Harbour
Subject: Boat Harbour Remediation Project - Continued Consultation
Attachments: KS to Chief Andrea Paul re Continued Consultation - Signed.pdf

Hi Chief Andrea. As we had discussed at the Boat Harbour Cleanup Committee last week, attached is correspondence relative to the Province of Nova Scotia's continued consultation on the Boat Harbour Remediation Project.

This letter explains that we will continue our provincial crown consultation and engagement throughout the life of the Project, including the period after the federal environmental assessment is completed.

During the period of the federal environmental assessment, the Impact Assessment Agency of Canada will lead consultation at the federal level and will coordinate the involvement of federal and provincial departments throughout the process.

It also has a brief description of our understanding of the various stakeholders' roles with respect to engagement and formal S. 35 consultation with Pictou Landing First Nation.

If you have any questions or concerns, then please let me know.

An original will follow in the mail.

Regards, Ken



NSLands
nova scotia lands

4th Floor, Centennial Building
1660 Hollis Street
PO Box 186
Halifax, Nova Scotia
B3J 2N2

October 16, 2019

Chief Andrea Paul
43 Maple Street
RR# 2, Box 55, Site 6
Trenton, NS B0K 1X0

Dear Chief Paul and Council:

**RE: Continuing Consultation on the Boat Harbour Remediation Project
Confirming the Continuing Role of the Province in the Crown Consultation
Process**

The purpose of this letter is to continue consultation on the Boat Harbour Remediation Project (the Project) with Pictou Landing First Nation, under the August 31, 2010 Mi'kmaq-Nova Scotia-Canada Consultation Terms of Reference and to specifically provide information about the coordinated federal-provincial Aboriginal consultation process for the Project.

On September 24, 2019, the Impact Assessment Agency of Canada (IAAC) sent you the Consultation Work Plan for the Project, for your review and comment. This letter and attachments are intended to provide additional information regarding the ongoing role of the Province of Nova Scotia in Aboriginal consultation for this Project.

Nova Scotia Lands (NSLands) formally initiated consultation on this Project in April 2018, in anticipation of a provincial Environmental Assessment (EA). At that time, the decision regarding a federal EA had not yet been made. When a project triggers both the federal and provincial EA processes, the standard approach is to harmonize the EAs and their associated Aboriginal consultation between the federal and provincial governments.

As you are aware, in April 2019 Nova Scotia Environment (NSE) decided a provincial EA is not required for the Project and is confident that environmental impacts can be addressed through the federal EA. NSE staff will continue to provide expertise through the federal EA process. Given this context, I would like to confirm the continued role of the Province in Crown consultation to ensure that we are fulfilling our duty to consult during the federal EA process. I would also like to confirm that consultation will continue after the federal EA process has concluded and throughout the life of the Project.

IAAC will continue to lead Aboriginal consultation at the federal level and coordinate the process with any departments (federal or provincial) that will be involved for the duration of the federal EA. During this time, NSLands will continue our role leading Crown consultation on behalf of the Province and will rely fully upon the federal IAAC process to meet our requirements for our duty to consult until such time as provincial authorization may be required. The Nova Scotia Office of Aboriginal Affairs will continue to participate in the consultation process to facilitate communication and ensure consistency amongst provincial regulators. NSLands will continue to engage with PLFN, just as we have over the last several years, regarding community engagement in planning activities and opportunities associated with the Project.

As well, NSLands has had, and will continue, ongoing discussions with the following regulatory and advisory departments relative to any and all permits and approvals required for the Project:

- Nova Scotia Office of Aboriginal Affairs
- Indigenous Services Canada
- Fisheries and Oceans Canada
- Impact Assessment Agency of Canada
- Environment and Climate Change Canada
- Transport Canada
- Health Canada
- Nova Scotia Environment
- Nova Scotia Transportation and Infrastructure Renewal
- Nova Scotia Department Lands and Forestry
- Nova Scotia Communities, Culture and Heritage

Chief Andrea Paul
October 16, 2019
Page 3

The attached document provides further detail on the roles of all involved parties.

If you have any questions or concerns about the approach outlined above, please feel free to contact me to discuss further.

Sincerely,

<Original signed by>

Ken Swain
Executive Director, Boat Harbour Clean Up

Encl. Crown Consultation Roles Chart

cc.

Twila Gaudet, Consultation Director, Kwilmu'kw Maw-klusuaqn Negotiation Office

Justin Huston, Deputy Minister, Nova Scotia Office of Aboriginal Affairs and Communities, Culture and Heritage

Frances Martin, Deputy Minister, Nova Scotia Environment

Paul LaFleche, Deputy Minister, Nova Scotia Transportation and Infrastructure Renewal

Julie Towers, Deputy Minister, Nova Scotia Lands and Forestry

Mike Atkinson, Atlantic Regional Director, Impact Assessment Agency of Canada

Jo Ann Fewer, Vice President, Nova Scotia Lands

**Roles Related to Engagement and Formal s. 35 Consultation
with Pictou Landing First Nation concerning the Boat Harbour Remediation Project
September 2019**

Representative	Role	Details
Impact Assessment Agency of Canada	EA Coordination and Crown Consultation Lead	<ul style="list-style-type: none"> • Develop and implement a Crown consultation plan that is consistent with a Whole of Government approach to Crown consultation by the federal Crown through close collaboration with regulatory departments and agencies and with support from other federal authorities, as appropriate • Coordinate the involvement of regulatory departments and agencies, including Nova Scotia Office of Aboriginal Affairs, and federal authorities regarding federal Crown consultation activities with Pictou Landing First Nation as it relates to the EA; • Represent the Crown with regulatory departments and agencies during consultation activities, and work with those authorities to appropriately consider and address issues raised by Pictou Landing First Nation; • Compile the Crown consultation record, including a tracking table for those issues, and coordinate input from the regulatory departments and agencies and federal authorities, where appropriate; • Relay information and concerns to relevant authorities and/or jurisdictions that are raised but fall outside the scope of the EA; • Coordinate discussions amongst the regulatory departments and agencies for the purposes of identifying a lead Crown consultation coordinator for activities related to the regulatory phase, if required.
Nova Scotia Lands	Lead Provincial Department and Project Proponent	<ul style="list-style-type: none"> • Lead Crown consultation on behalf of the Province. • Provincial Crown Agency responsible for the implementation of the project. • Responsible for all project-related engagement activities with PLFN. • Share all project information with all parties through Sharepoint site.
GHD	Project Consultant	<ul style="list-style-type: none"> • Collect, analyze, and present project information. • Coordinate EA submission. • Provide technical advice and support.
Pictou Landing First Nation	Mi'kmaq Community Representative	<ul style="list-style-type: none"> • Advise Proponent and Crown on consultation process with input from the Mi'kmaq. • Communicate impacts to Aboriginal and Treaty Rights resulting from the Project. • Share Indigenous knowledge to assist in developing appropriate accommodations as needed. • Review and provide feedback on project information.
Office of Aboriginal Affairs	Provincial Consultation Advisor	<ul style="list-style-type: none"> • Participate in IAAC-led consultation process.

**Roles Related to Engagement and Formal s. 35 Consultation
with Pictou Landing First Nation concerning the Boat Harbour Remediation Project
September 2019**

		<ul style="list-style-type: none"> • Coordinate consultation and communication related to Crown consultation with provincial departments.
Nova Scotia Environment	Provincial Authority, Technical Advisory Committee	<ul style="list-style-type: none"> • Provide technical advice. • Participate in Crown consultation where department authorizations are required.
Department of Lands & Forestry	Provincial Authority, Technical Advisory Committee	<ul style="list-style-type: none"> • Provide technical advice. • Participate in Crown consultation where department authorizations are required.
Department of Communities, Culture and Heritage	Provincial Authority, Technical Advisory Committee	<ul style="list-style-type: none"> • Provide technical advice. • Participate in Crown consultation where department authorizations are required.
Indigenous Services Canada	Federal Authority, Technical Advisory Committee	<ul style="list-style-type: none"> • Provide technical advice. • Contribute to federal Crown consultation activities.
Environment and Climate Change Canada	Federal Authority, Technical Advisory Committee	<ul style="list-style-type: none"> • Provide technical advice. • Contribute to federal Crown consultation activities.
Health Canada	Federal Authority, Technical Advisory Committee	<ul style="list-style-type: none"> • Provide technical advice. • Contribute to federal Crown consultation activities.
Fisheries and Oceans Canada	Federal Authority, Technical Advisory Committee	<ul style="list-style-type: none"> • Provide technical advice. • Contribute to federal Crown consultation activities.
Transport Canada	Federal Authority, Technical Advisory Committee	<ul style="list-style-type: none"> • Provide technical advice. • Contribute to federal Crown consultation activities.

Annex 3.8

Agreement in Principle June 2014

Agreement in Principle

BETWEEN: **Province of Nova Scotia,**
 represented by the Minister of Environment

AND:
Pictou Landing First Nation,
 represented by the Chief and Band Council

The Parties Agree as follows:

1. The Province agrees that on or before June 30, 2015, it shall introduce a Bill in the Nova Scotia House of Assembly enacting into law timelines for the cessation of the use of the Boat Harbour Effluent Treatment Facility for the reception and treatment of the effluent from the Northern Pulp Mill.

2. The Province and the Band agree to negotiate in good faith, and to execute an Agreement respecting the Boat Harbour Effluent Treatment Facility closure and remediation, and such Agreement shall include the following terms:
 - a. The Province and the Band agree to negotiate reasonable timelines for the cessation of the use of the Boat Harbour Effluent Treatment Facility for the reception and treatment of the effluent from the Northern Pulp Mill;

 - b. The Province and the Band will negotiate reasonable costs, such as travel and accommodation expenses, community participation, and such other reasonable expenses as shall be hereafter negotiated, to allow the Band to participate in the said negotiations;

 - c. The Province will work with the Band to identify any Mi'kmaq burial sites or burial grounds at Indian Cross Point, and the Province will protect any such sites;

 - d. Should the Province fail to finalize, by good faith negotiations, the timelines for cessation of effluent described in paragraph 2a herein, the Province shall pay to the Band an ex gratia payment in the amount of \$ 1 Million. This clause shall be of no force and effect should the Band fail to negotiate in good faith such reasonable timelines.

3. The Band agrees, forthwith, to dismantle and disband its blockade of the Boat Harbor Effluent Treatment Facility.


Dated, signed, and witnessed by the duly authorized representatives of the Parties at Pictou Landing, Pictou County, Nova Scotia, this 16th day of June, 2014.

Province of Nova Scotia

Honourable Randy Delorey,
Minister of Environment

Witness:
<Original signed by>

<Original signed by>

 BRIAN J. HEBERT

Pictou Landing First Nations

Chief Andrea Paul

Witness:
<Original signed by>

<Original signed by>

BRIAN J. HEBERT

<Original signed by>

Councillor Wayne Denny
<Original signed by>

Councillor Dominic Denny
<Original signed by>

Councillor Crystal Denny
<Original signed by>

Councillor Anthony Nicholas
<Original signed by>

Councillor Gordie Prosper
<Original signed by>

Councillor Derek Francis
<Original signed by>

Annex 3.9

Memorandum of Agreement dated October 14, 2014

**Memorandum of Agreement
Between
the Province of Nova Scotia (the Province)
and
Pictou Landing First Nation (the Band)**

**For Provision of Funding to the Band For Costs Incurred in the Negotiation of an Agreement
respecting the Boat Harbour Effluent Treatment Facility Closure and Remediation**

1.0 Purpose

1.1 In the Agreement in Principle between the Province and the Band entered into on June 16, 2014, the Province and the Band agreed to negotiate an Agreement respecting the Boat Harbour Effluent Treatment Facility closure and remediation. Under clause 2.b, the Province and the Band also agreed to negotiate reasonable costs, such as travel and accommodation expenses, community participation, and such other reasonable expenses to allow the Band to participate in the said negotiations.

1.2 The parties acknowledge that this Memorandum of Agreement (MOA) will satisfy the requirements of clause 2.b of the June 16, 2014 Agreement in Principle and that no further agreement or action will be required in this regard by the Province.

1.3 This MOA lays out the eligibility criteria and related terms and conditions relative to the provision of funding by the Province for such reasonable costs as well as the associated accountability for such costs, which is to be provided by the Band.

2.0 Accountable Advance

2.1 Upon execution of the MOA, the Province shall provide an accountable advance to the Band in the amount of \$100,000.

2.2 The Band shall periodically provide a financial statement accounting for costs incurred and paid against the items detailed in the eligible costs as laid out in the following section 3.0.

2.3 The financial statements are required from the Band for the period December 31, 2014 and quarterly thereafter.

2.4 If the Band forecasts that its accountable advance(s) will be fully consumed in a fiscal quarter, then it may request further advance(s). This will be subject to satisfactory accounting for costs incurred to date and the approval of the Province for provision of further advance(s).

2.5 At the request of the Province, the Band will provide access to accounts and records for audit purposes, subject to redacting to remove information protected by solicitor client privilege.

2.6 As of June 30, 2015, the Band will repay any advance not spent on eligible costs, or not otherwise accounted for, to the Province.

3.0 Eligible Costs

3.1 Notwithstanding that the Band may request the prior written approval of the Province for items which are outside of or not clearly covered by the following criteria, eligible costs will include the following items:

a. fees and disbursements for engineers and other subject matter experts as required from time to time for advice and meetings with representatives of the Province and the Band; with the understanding that the discussions will primarily involve the Province and the Band and the technical issues will be focused on closure of the Boat Harbour Effluent Treatment System and remediation.

b. Professional fees and disbursements for a lawyer to provide legal advice, to attend meetings with representatives of the Province and the Band and to lead negotiations with the Province.

c. For both a. and b. above, the costs are limited to those directly related to attendance at the regularly scheduled meetings between the Province and the Band, inclusive of a reasonable allocation for meeting preparation and follow-up. For greater certainty, preparation and follow up may include travel time, telephone conferences and meetings with the committee or its members (including with outside agencies or departments e.g. Environment Canada, NS Department of Environment), Chief and Council, Band committee members and Band members on the issues relating to closure and cleanup of the treatment facility and Indian Cross Point.

d. Per diem of \$200 per half day for each Band member to attend meetings with representatives of the Province and the Band, subject to the maximum of four (4) Band participants.

e. Travel, meal and accommodation expenses for up to four members and/or staff of the Band to attend meetings with the Province outside the community. In this respect, the Province is willing to attend meetings in the Community. In any event, as the meetings are anticipated to require no more than a half day each they can be scheduled such that travel to and from the meetings can take place during the day of the meeting. Of course, if circumstances were to necessitate accommodation then this would be funded, subject to approval of the Province in advance. Technical and legal professionals will also charge for travel, meals and accommodations where necessary.

f. Communication expenses for community meetings, electronic and print communication to keep community informed of progress and referendum on final agreement. The related costs are required to be approved by the Province in advance.

g. Administration fee based upon 10% of the costs incurred.

h. As stated in the foregoing, in the event that the Band seeks funding for costs which are either outside of, or not clearly covered by, the foregoing items, then the Band will require the written approval of the Provincial representative that such costs are eligible costs.

3.2 Notwithstanding Section 3.1, expenditures by the Band shall not qualify as eligible costs if they will be paid for or reimbursed under an agreement or arrangement with any other person, organization or government.

3.3 In general terms, eligible costs include costs which are incurred in respect of the negotiation and implementation of the Agreement in Principle.

4.0 Contacts

For purposes of communications and management of this MOA, the following are the representatives:

To the Province:

Attention: Ken Swain email: swaink@gov.ns.ca
Nova Scotia Lands, 5th Floor, Johnston Building, 1672 Granville St, PO Box 186
Halifax, NS B3J 2N2

To the Band:

Attention: Dan MacDonald email: Dan.Mac@plfn.ca
Pictou Landing First Nation, Box 55 Site 6, Trenton, NS B0K 1X0

5.0 Signatures

<Original signed by>

On behalf of the Province

<Original signed by>

On behalf of the Band

Date

October 14, 2014

<Original signed by>

Annex 3.10

Agreement re Baker Estate

THIS AGREEMENT made in duplicate as of the 14th day of October, 2014.

BETWEEN:

HER MAJESTY THE QUEEN IN RIGHT OF THE PROVINCE OF NOVA SCOTIA, as represented by the Minister of Internal Services (hereinafter called the "Province")

OF THE ONE PART

- and -

PICTOU LANDING BAND as represented by the Council of Pictou Landing, being a band and council within the meaning of the *Indian Act* (hereinafter collectively called the "Band")

OF THE OTHER PART

WHEREAS:

- A. By Agreement in Principle between the Province and the Band, dated June 16, 2014, (the "Agreement in Principle") the parties agreed to negotiate an agreement respecting the Boat Harbour Effluent Treatment Facility closure and remediation which agreement would include, among other things the protection by the Province of burial sites or burial grounds at Indian Cross Point;
- B. The parties have identified lands at Indian Cross Point, more particularly described in Schedule "A" hereto (the "Lands") that they agree to protect;
- C. The parties have agreed that the means of protection of these lands will be by the Province funding the purchase of the lands by the Band under the terms and conditions of this agreement;
- D. The Band acknowledges that the protection of the Lands under the terms of this Agreement will constitute meaningful and significant progress towards fulfilling the commitment in clause 2(c) of the Agreement in Principle; and,
- E. The Province acknowledges that this Agreement does not fulfill all of the obligations of the Province under section 2(c) of the Agreement in Principle.

NOW THEREFORE the Province and the Band agree as follows:

ARTICLE 1.0 INTERPRETATION

1.01 Capitalized words and phrases used herein shall, for purposes of this Agreement and Schedules, have the meanings ascribed to them in this Agreement or the applicable Schedule, as the case may be.

1.02 In this Agreement, the words and phrases set forth below shall have the following meaning:

“Agreement” means this agreement including any schedules or amendments;

“Eligible Expenses” means reasonable and proper costs incurred by the Band for:

- (i) The purchase price for the Lands;
- (ii) Reasonable legal fees and disbursements related to the acquisition of the Lands; and
- (iii) Other customary costs associated with the acquisition of the Lands in Nova Scotia as approved by the Province including real property tax adjustments.

ARTICLE 2.0 AGREEMENT TO PAY OR REIMBURSE

2.01 The Province agrees to pay or reimburse the Band's Eligible Expenses as provided in Article 3.0. in an amount up to \$103,500.

ARTICLE 3.0 ELIGIBLE EXPENSES

3.01 The Province shall reimburse all Eligible Expenses incurred by the Band in relation to the acquisition of the Lands pursuant to this Agreement, provided that the Band shall apply no mark-up to any of the Eligible Expenses.

3.02 The Province will pay all applicable taxes, including HST, which shall be invoiced in addition to the fees, costs and expenses described in Sections 3.01.

3.03 Subject to the provisions of Sections 3.01 and 3.02, an account for Eligible Expenses shall be prepared by the Band after the Lands have been acquired and shall contain the following information:

- i. a detailed description of the Eligible Expenses incurred by the Band along with a narrative of the actual time spent on the performance of those services; and
- ii. copies of receipts, invoices or vouchers evidencing disbursements or Eligible Expenses of third parties providing goods or services to the Band.

3.04 All accounts shall be sent to the Province for approval and payment.

3.05 When approved for payment under Section 3.05, payment shall be made within 30 days.

ARTICLE 4.0 CONFLICT OF INTEREST

4.01 The Band shall, while this Agreement is in effect, avoid situations which might cause a conflict of interest and shall immediately notify the Province if any such conflict does or might appear to arise.

ARTICLE 5.0 TERMINATION

5.01 The obligation to reimburse the Band shall terminate on March 31, 2015, if the Lands have not been acquired by that time. The termination of this Agreement shall not affect any rights, duties, obligations or liabilities that arose or accrued prior to the effective date of termination.

ARTICLE 6.0 INDEPENDENT CONTRACTORS

6.01 The Band and its employees and agents are independent contractors, and not the agent of the Province and are not nor shall they be deemed to be employees or servants of the Province.

6.02 The Band has no authority under this Agreement to bind the Province by contract or otherwise.

ARTICLE 7.0 BOOKS AND RECORDS/AUDIT

7.01 The Band covenants to maintain proper and accurate books, accounts and records relating to the Eligible Expenses to be reimbursed under this Agreement during the term of this Agreement and for a period of 3 years following the end of the term of this Agreement, shall preserve such books, records and accounts and keep them available for examination or audit by a person designated by the Province.

7.02 The Band shall make available to the Province upon request, during normal business hours, all books, records and accounts with respect to this Agreement during the term of this Agreement and for a period of 3 years following the end of the term of this Agreement.

7.03 The Band shall ensure that it takes all steps necessary to comply with the provisions of this Article 7 including by obtaining consent to the release of information from individuals engaged by the Band.

Article 8.0 CONFIDENTIALITY

- 8.01 Except as otherwise provided in this Agreement and as may be required by law or by regulatory or judicial authority, the Band shall keep private and confidential and not make public or divulge any information or material relative to this Agreement without having first obtained the written consent of the Province.
- 8.02 This Agreement is subject to the provisions of the *Freedom of Information and Protection of Privacy Act* and the Province shall make any decision respecting release of this Agreement in compliance with that Act.

ARTICLE 9.0 MISCELLANEOUS

- 9.01 All references to monetary amounts in this Agreement or any Schedule shall be to Canadian dollars.
- 9.02 Time shall be of the essence in this Agreement.
- 9.03 This Agreement shall be governed by and construed in accordance with the laws in force in Nova Scotia. The parties submit to the jurisdiction of the courts of Nova Scotia.
- 9.04 This Agreement and all Schedules constitute the whole Agreement unless amended in writing and signed by each of the parties.
- 9.05 No modification or waiver of the obligations of any party to this Agreement shall be effective unless made in writing and signed by each of the parties.
- 9.06 Any notice, demand or request herein provided or permitted to be given by any party to another shall be in writing and may be served by personal service or email, addressed as follows:

To the Province:

Attention: Ken Swain
email: swaink@gov.ns.ca
Nova Scotia Lands, 5th Floor, Johnston Building,
1672 Granville St, PO Box 186
Halifax, NS B3J 2N2

To the Band:

Attention: Dan MacDonald

SCHEDULE "A"

69

SCHEDULE "A"

ALL AND SINGULAR THAT CERTAIN lot, piece or parcel of land, situate, lying and being on the West side of the Highway to Pictou Landing, in the County of Pictou, Province of Nova Scotia, bounded and described as follows:

BEGINNING at the point of intersection of the west margin of the Highway to Pictou Landing and the south line of lands of Sillas Gratto; THENCE North 77 degrees 00 minutes West along the south line of lands of Sillas Gratto two thousand three hundred thirty seven decimal nine one feet (2,337.91') to the high water mark of East River; THENCE southwesterly along the various courses of the high water mark of the East River to the north line of lands of Roy Simpson. A survey tie joining the last mentioned points having a bearing of South 31 degrees 14 minutes West and a distance of one thousand one hundred sixty-six decimal three three feet (1,166.33'); THENCE South 82 degrees 05 minutes East along the north line of lands of Roy Simpson three thousand three hundred sixty-two decimal four two feet (3,362.42') to the west margin of the highway to Pictou Landing; THENCE northwest along the west margin of the Highway to Pictou Landing to the place of beginning. A survey tie joining the last two points having a bearing of North 25 degrees 36 minutes West and a distance of one thousand thirty six decimal two feet (1,036.2').

SUBJECT TO AN EASEMENT to the Nova Scotia Power Commission for the purpose of an underground pipeline. Said easement having a width of one hundred feet (100') and being fifty decimal zero feet (50.0') on each side of the described center line. BEGINNING at a point on the high water mark of the East River. Said point being South 69 degrees 09 minutes West five hundred twenty-six decimal five five feet (526.55') from the intersection of the south line of lands of Sillas Gratto and the high water mark of East River; THENCE South 88 degrees 33 minutes East eight hundred eighteen decimal three five feet (818.35') to a point; THENCE North 84 degrees 39 minutes East four hundred fifty-two decimal seven feet (452.7') to the south line of lands of Sillas Gratto.

SAVING AND RESERVING THEREFROM all the lands conveyed to the Greenwood Cemetery Company together with and including a fifteen feet (15') access road, said access road being more fully described as follows: BEGINNING at a point on the west margin of the Highway to Pictou Landing. Said point being a distance of four hundred seven decimal one feet (407.1') on a bearing of North 28 degrees 18 minutes West from the point of intersection of the north line of lands of Roy Simpson and the west margin of the Highway to Pictou Landing and also being on the centre line of said access road; THENCE South 61 degrees 14 minutes west along the centre line of said access road a distance of two hundred fifty-nine decimal five feet (259.5') to a point; THENCE North 80 degrees 25 minutes West continuing along the centre line of said access road a distance of six hundred eighty-one decimal nine feet (681.9') to a point on the east line of said Cemetery; said Greenwood Cemetery being more fully described as follows:

..... 2

SCHEDULE "A" - Page 2

BEGINNING at the point of intersection of the centre line of the above described access road and the east line of Greenwood Cemetery lands; THENCE North 9 degrees 30 minutes East a distance of one hundred forty-nine decimal six feet (149.6') to the north east corner of Cemetery; THENCE North 81 degrees 01 minutes West a distance of two hundred thirty-one decimal five feet (231.5') to the northwest corner of Cemetery; THENCE South 9 degrees 36 minutes West a distance of two hundred eighty one decimal five feet (281.5') to the southwest corner of Cemetery; THENCE South 81 degrees 12 minutes East a distance of two hundred thirty nine decimal five feet (239.5') to the southeast corner of Cemetery; THENCE North 53 degrees 06 minutes East a distance of one hundred seventy decimal four feet (170.4') to a point on the south margin of above described access road; THENCE North 80 degrees 25 minutes West along the south margin of above described access road a distance of one hundred twenty-five decimal zero feet (125.0') to the point of intersection of the south margin of the above described access road and the east line of Cemetery; THENCE North 9 degrees 30 minutes East a distance of seven decimal five feet (7.5') to the place of beginning.

ALSO SAVING AND EXCEPTING THEREFROM all that certain lot, piece or parcel of land conveyed by the Grantors herein to Food City Limited by a Deed dated the 13th day of April, A. D., 1973 and recorded at the Registry of Deeds, Pictou, on even date herewith, said lot being more particularly described as follows:

ALL AND SINGULAR THAT CERTAIN lot, piece or parcel of land, situate, lying and being on the west side of the Pictou Landing Road, Pictou Landing, County of Pictou, Province of Nova Scotia bounded and described as follows:

BEGINNING at the point of intersection of the west margin of the Pictou Landing Road (a 100 foot right-of-way) and the north margin of a fifteen foot right-of-way to the Greenwood Cemetery; THENCE South 61 degrees 14 minutes West along the north margin of the aforesaid fifteen foot (15') right-of-way two hundred fifty-one decimal zero feet (251.0') to a point; THENCE North 29 degrees 25 minutes West along the west line of the Ralph Simpson house lot one hundred eighty-two decimal two feet (182.2') to a point; THENCE North 63 degrees 57 minutes East along the north line of the Ralph Simpson house lot two hundred sixty-four decimal one six feet (264.16') to the west margin of the Pictou Landing Road; THENCE South 25 degrees 06 minutes East along the west margin of the Pictou Landing Road one hundred seventy decimal zero feet (170.0') to the place of beginning.

BEING AND INTENDED TO BE a portion of the lands conveyed to Ralph Simpson by Deed registered in the office of the Registrar of Deeds for the County of Pictou in Book 551, Page 102.

THE ABOVE DESCRIBED lot contains 66 acres more or less.

Annex 3.11

**Boreas Heritage Consulting report on INDIAN CROSS POINT ARCHAEOLOGICAL RECONNAISSANCE AND
GROUND PENETRATING RADAR SURVEY PICTOU COUNTY dated September 2019**

**INDIAN CROSS POINT
ARCHAEOLOGICAL RECONNAISSANCE
AND GROUND PENETRATING RADAR SURVEY
PICTOU COUNTY**



Submitted to:

Nova Scotia Lands Inc.
and the
Special Places Program

Submitted by:

Boreas Heritage Consulting Inc.

Heritage Research Permit:

A2019NS064

September 2019

BOREAS
HERITAGE

PROJECT PERSONNEL

PRINCIPAL INVESTIGATOR: Stephen G. Garcin, M.A.

PROJECT MANAGEMENT: Sara J. Beanlands, M.A.

DESKTOP COMPONENT: Sara J. Beanlands, M.A.
Travis D. Crowell, M.A.
Stephen G. Garcin, M.A.

FIELD COMPONENT Stephen G. Garcin, M.A.
Colin J. Hicks, M.A.
Mikael Basque, B.A.
Drew Perley

REPORT PREPARATION: Sara J. Beanlands, M.A.
Stephen G. Garcin, M.A.

GIS / FIGURE DRAFTING: Stephen G. Garcin, M.A.

EXECUTIVE SUMMARY

In the late 1960s, a pulp mill was constructed and commissioned at Abercrombie Point in Pictou County, within the greater Mi'kmaw territory of Piktuk. Development of the mill also involved underground installation of a pipeline to convey mill effluent to the Boat Harbour Effluent Treatment Facility (BHETF). The pipeline, measuring over 3 kilometres in length, extends from the pulp mill, eastward below the East River, to the BHETF property. A portion of the pipeline was installed, within a deeded Right of Way (ROW), from Indian Cross Point to Highway 348, in proximity of the historic Mi'kmaw Burial Ground at Indian Cross Point. Decommissioning of the pipeline will be part of the Boat Harbour Remediation Project.

In order to help inform decisions around pipeline decommissioning and remediation, Nova Scotia Lands Inc. retained Boreas Heritage Consulting Inc. (Boreas Heritage) to undertake archaeological reconnaissance and Ground Penetrating Radar (GPR) surveys of selected areas associated with the existing pipeline ROW. The objectives of the assessment are to provide as much information as possible as to whether human remains are likely to be present in the pipeline ROW and to survey additional areas that may also be associated with the Mi'kmaw Burial Ground. The archaeological assessment was conducted in accordance with the terms of Heritage Research Permit A2019NS064 issued by the Nova Scotia Department of Communities, Culture and Heritage (CCH) – Special Places Program (SPP) and was directed by Senior Archaeologist, Stephen Garcin. The field component of the Survey was undertaken between July 9 and September 4, 2019.

The 2019 Indian Cross Point Archaeological Reconnaissance and Ground Penetrating Radar Survey involved desktop components (background screening) and field components (archaeological reconnaissance and GPR Survey). *Phase 1* consisted of GPR survey of four selected areas within the existing ROW alignment, which revealed evidence of disturbance associated with pipeline installation and/or maintenance in all areas and evidence of the existing pipeline in two areas (Grid 3 & Grid 4). No evidence of burials was detected within any of the grid areas. The background study revealed the burying ground is likely located atop the bank along the shoreline of the East River, including portions of the Palmer property. The burials may have extended south into the area where the pipeline ROW is now located. As a result, the western end of the pipeline is considered to exhibit high potential for encountering unmarked burials.

Phase 2 consisted of Archaeological Reconnaissance of the adjacent properties to determine the potential for locating evidence of the Mi'kmaw Burial Ground and to select areas suitable for GPR survey without significant vegetation removal. Four suitable areas were identified (PA-1 – PA-4) and one area of historic land use was observed (HA-1). PA-4 was subsequently subjected to GPR survey, which revealed a number of subsurface anomalies. Analysis of the profile data suggests many of these responses are fairly consistent in size and depth. Without excavation and ground truthing it is not possible to determine the exact nature

of these anomalies. The regular nature of the responses, however, suggests the possibility that burials are present in this area.

Based on the results of the Survey described in this report, the area of highest potential for relocating the burying ground is the area closest to the shoreline on the Palmer property and south into the area where the pipeline ROW terminates. Boreas Heritage recommends that, if the existing pipeline at the western end of the ROW is to be removed, an archaeological monitor should be present to prevent accidental impacts to potential unmarked burials. All remaining portions of the ROW are considered to exhibit low potential for encountering unmarked burials. As there are no plans to develop or modify this portion of the Palmer property, there are no immediate concerns that unmarked burials will be disturbed in this area.

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1.0 INTRODUCTION

In the late 1960s, a pulp mill was constructed and commissioned at Abercrombie Point in Pictou County, within the greater Mi'kmaw territory of Piktuk. Development of the mill also involved underground installation of a pipeline to convey mill effluent to the Boat Harbour Effluent Treatment Facility (BHETF). The pipeline, measuring over 3 kilometres in length, extends from the pulp mill, eastward below the East River, to the BHETF property. A portion of the pipeline was installed, within a deeded Right of Way (ROW), from Indian Cross Point to Highway 348, in proximity of the historic Mi'kmaw Burial Ground at Indian Cross Point. Decommissioning of the pipeline will be part of the Boat Harbour Remediation Project.

In order to help inform decisions around pipeline decommissioning and remediation, Nova Scotia Lands Inc. retained Boreas Heritage Consulting Inc. (Boreas Heritage) to undertake archaeological reconnaissance and Ground Penetrating Radar (GPR) surveys of selected areas associated with the existing pipeline ROW and adjacent properties. The objectives of the assessment are to provide as much information as possible as to whether human remains are likely to be present in the pipeline ROW and to survey additional areas that may also be associated with the Mi'kmaw Burial Ground. The archaeological assessment was conducted in accordance with the terms of Heritage Research Permit A2019NS064 (see *Appendix A*) issued by the Nova Scotia Department of Communities, Culture and Heritage (CCH) – Special Places Program (SPP) and was directed by Senior Archaeologist, Stephen Garcin. The field component of the Survey was undertaken between July 9 and September 4, 2019 with the assistance of Colin Hicks, Mikael Basque and Drew Perley.

The purpose of the Survey is to highlight areas of potential archaeological sensitivity associated with the proposed Project. The Survey involves desktop and field components. The desktop assessment outlines the environmental, archaeological and historic context of the Assessment Area. The field assessment is an opportunity to verify the predictions of the desktop assessment and to identify specific areas of elevated archaeological potential associated with the proposed Project.

This report includes an overview of the methods applied during the desktop and field components of the Survey, a summary of the results and conclusions of the Survey, and archaeological resource management recommendations for the proposed Project.

2.0 ASSESSMENT AREA

The proposed Project is located within the greater Mi'kmaw territory of Piwtuk at Indian Cross Point (**Plate 1**), situated south of the community of Pictou Landing and southwest of Boat Harbour, in Pictou County, Nova Scotia (**Figures 1 & 2**). The Assessment Area can be accessed via Highway 348 (Pictou Landing Road), north of the community of Trenton.



Plate 1: View northwest, Indian Cross Point and existing pulp mill.

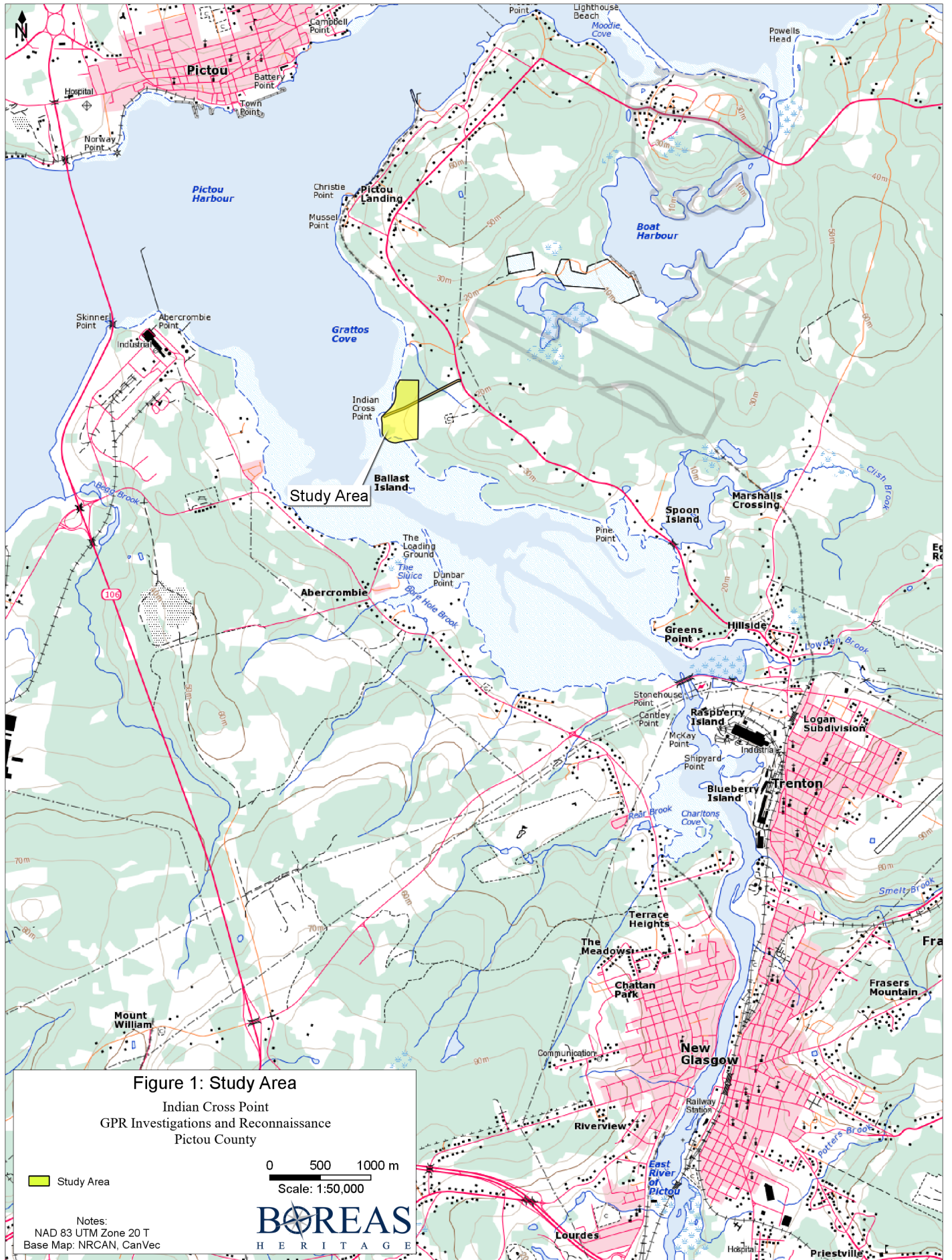





Figure 2: Phase 1 Study Area
Indian Cross Point
GPR Investigations and Reconnaissance
Pictou County

 Study Area

0 75 150 m

Scale: 1:7,500

Notes:
NAD 83 UTM Zone 20 T
Base Map: Google



3.0 SURVEY METHOD

The objectives of the Survey are (1) evaluate archaeological potential within the Assessment Area, (2) identify and delineate areas considered to exhibit high potential for encountering archaeological resources and/or unmarked burials, (3) provide detailed and accurate information on the results of the Survey, and (4) offer comprehensive recommendations to Nova Scotia Lands Inc. and CCH so that appropriate archaeological resource management strategies can be devised. To achieve these ends, Boreas Heritage designed an assessment strategy consisting of a desktop component (background screening) and a field component (archaeological reconnaissance and GPR survey).

3.1 Desktop Component – Methods

The purpose of the desktop component of the Survey is to identify areas considered to exhibit high potential for encountering archaeological resources within the Assessment Area. Any areas of elevated archaeological potential identified during the desktop component are targeted during the field component of the Survey. Areas confirmed to exhibit high archaeological potential during the field component of the Survey are delineated and designated as High Potential Areas (HPA). The results of the desktop component provide interpretative and evaluative context for any potential archaeological resources identified during the field component of the Survey. It is also noted that, as per Heritage Research Permit requirements, the Kwilmu'kw Maw-klusuaqn Negotiation Office (KMKNO) was advised of the proposed Project as part of the desktop component for the Survey.

The desktop component of the Survey examines three elements: the environmental context, the archaeological context and the historical context of the Assessment Area. The environmental context is examined to identify past and current environmental influences or conditions that may elevate archaeological potential within the Assessment Area (e.g.: topography, local resources and potential for agriculture). The archaeological context of the Assessment Area is examined to identify how people used and occupied the surrounding landscape based on evidence from previously registered archaeological sites and past archaeological work conducted near the proposed Project. The historical context of the Assessment Area is examined to identify how people used and occupied the local area based on evidence from published archival documents, ethno-historic records, local oral traditions, historic maps, local and/or regional histories, scholarly texts and available property records.

In Nova Scotia, the Maritime Archaeological Resource Inventory (MARI) is maintained by the Nova Scotia Museum, on behalf of CCH. Reports from past archaeological assessments and academic research conducted near the Assessment Area provide archaeological context, which informs the interpretation and evaluation of any potential archaeological resources identified during the field component of the Survey.

Additionally, the desktop component of the Survey involves a general review of topographic maps, coastal charts and aerial photographs related to the Assessment Area, to identify topographical and hydrological attributes that correlate with high archaeological potential (e.g. waterfalls/rapids as focal points for fishing or requiring portage, submerged marine terraces representing former coastline). These attributes are also incorporated into the archaeological potential model (APM), developed by Boreas Heritage.

The model described above has been developed by analysing a range of natural and cultural attributes considered to have influenced past patterns of land use and settlement, and by extension, archaeological potential across the landscape. The attributes include proximity to water (essential for drinking and transportation), slope, aspect and elevation, as well as proximity to known archaeological sites. The result of the modelling is a continuous depiction of archaeological potential within the Assessment Area. It is important to note, however, that people have lived in what is now Nova Scotia for more than 13,000 years and have persisted through a series of climate shifts, including changes in annual precipitation and temperatures. The modern bioclimatic scheme, which incorporates several of the variables used to assess archaeological potential, can only be assumed to be reliable for current environmental conditions. Bioclimatic variations may have changed the past nature of variables, such as aquatic features or forest cover. As a result, appropriate caution must be exercised when relying solely upon the model, which depend on contemporary biophysical characteristics. The APM should only be employed in conjunction with the detailed results of the desktop component of the Survey and augmented or refined following the results of the field component of the Survey.

In general, twenty-first century maps, satellite imagery and GIS data reflect the land and coastline as they are today. Where possible, the APM uses topographic data that reflects the original, unmodified landforms as they were in the past. Modifications such as causeways, canals and reservoirs, as well as shoreline reclamation and development, have significantly reshaped the modern landscape. The APM takes these variables into account and provides a continuous representation of the predicted archaeological potential across the entire landscape. Areas of high archaeological potential are highlighted in red and areas of low archaeological potential are represented in green. The APM is designed only for use in conjunction with the combined results of the desktop component of the Survey and should not be viewed as a stand-alone archaeological assessment tool.

Boreas Heritage applies background research methods that compile context information from a diverse range of sources. The historical and cultural information is integrated with the environmental and physiographic data to identify areas of archaeological potential within the Assessment Area and to provide a framework for the initial interpretation of any archaeological resources encountered during the field component of the Survey. Combined, these critical lines of inquiry inform the results of the Survey and provide context for the Assessment Area as it relates to episodes of past human land-use, cultural interaction, settlement and development.

3.2 Field Component – Methods

The field component of the Survey, the archaeological reconnaissance, involves on-site visual and non-intrusive examination of the Assessment Area. It may also involve engagement with local residents and knowledge holders. The objectives of the field component of the Survey are (1) to conduct a visual inspection of the entire Assessment Area, (2) to delineate areas exhibiting high archaeological potential, as identified during the desktop component and/or as encountered during the field component of the Survey, and (3) to document any archaeological resources identified during the desktop component and/or field component of the Survey.

Hand-held global positioning systems (GPS) are used to plot waypoints and record the tracklogs of each archaeologist during the field component of the Survey (*Appendix B*). All coordinates are Universal Transverse Mercator (UTM) projection, using North American Datum (NAD) 83.

The field component typically involves parallel pedestrian transects, at intervals of 20-30 metres (maximum of 50 metres), across the Assessment Area to visually assess archaeological potential of the Assessment Area. These transects assist in maintaining effective coverage during the Survey. Structured pedestrian transects assist in the recognition of topographic and/or vegetative anomalies that may inform the extent and nature of previous disturbance factors in the Assessment Area (e.g.: clear-cutting, ploughing, construction earthworks), or suggest an elevation in archaeological potential, including evidence of buried archaeological resources (e.g.: small knolls, apple trees in the forest, overgrown depressions or abandoned roads). Methods and strategies may be modified in response to concerns of safety and efficiency, or when areas considered to exhibit high archaeological potential are identified.

Limited subsurface testing may be employed if archaeological resources are suspected, or located, during the course of the field study. This limited testing will provide the basis for recommendations for further archaeological investigation, if necessary. The objective of the subsurface survey is to confirm or refute the presence of buried archaeological resources. Shovel test pits, averaging 40 centimetres by 40 centimetres, will be dug through the topsoil into subsoil at 5 metre intervals. All soil removed from the test pits will be screened through 6-millimetre wire mesh in order to recover any artifacts within the excavated soil. Any archaeological resources encountered during testing will be quickly assessed and recorded using GPS technology. New sites will be sufficiently documented to facilitate registration with the MARI archaeological site database. All field activities will be recorded, and artifacts recovered will be processed and catalogued in accordance with standards set by SPP. Shovel Test Record Forms will be filled out for every shovel test excavated during the course of the field study.

The process and results of the field component of the Survey are documented in field notes and with digital photographs. Upon identification of areas of high archaeological potential, or confirmed archaeological resources, these locations and features will be sufficiently documented to make informed archaeological resource management recommendations. Confirmed archaeological resources, as determined by CCH, will result in the registration of the site(s) in the MARI database.

3.3 Field Component – GPR Survey Methods

GPR is considered the most accurate, highest resolution geophysical technology and provides a non-intrusive and cost-effective method of identifying potential archaeological features in advance of development. GPRs transmit electromagnetic energy into the ground and measure the timing and amplitude of its reflections. The depth of penetration and horizontal resolution of the resulting image depends on many factors, principally the frequency of the transmitter and the nature of the earth beneath the instrument. Since most archaeological targets are relatively subtle and close to the surface, Boreas Heritage employs a 500MHz instrument (Noggin 500 by Sensors and Software). The Noggin 500 GPR can effectively produce 3D mapping of the first 1-3 metres of the soil column (depth of penetration depends on the soil type).

A grid is established and recorded with a Global Navigation Satellite System (GNSS). The survey transects are at 25-centimetre intervals and data are collected in two directions (along Y lines and along the perpendicular X lines), resulting in cross-sectional coverage. The data is post processed using associated software. Post processing steps include removing background noise and migration, which will enhance the ability to view data and improve the accuracy of determining the size and depth of any identified subsurface features.



Plate 2: *Preparing the Noggin 500 GPR for survey along the existing pipeline.*

4.0 RESULTS

4.1 Desktop Component

The following sections outline the results of the desktop component of the Assessment, with focus on the environmental context, the archaeological context and the historical context of the Assessment Area. The desktop component assists in the identification and delineation of areas considered to exhibit elevated archaeological potential and provides a foundation for the initial interpretation of any archaeological resources that may be encountered during the reconnaissance component of the Assessment.

4.1.1 Desktop Results – Environmental Context

It is important to understand the physiographic attributes and environmental characteristics of the land in order to effectively interpret patterns of human settlement over thousands of years. Geological, topographic, hydrographic and ecological factors have influenced the land use patterns of precontact and historic period Indigenous peoples, as well as later historic period settlers. These factors are key to identifying and evaluating the archaeological potential of the Assessment Area. Specific considerations for determining archaeological potential applied during the desktop and field components of the Assessment include the slope and drainage of landforms, available mineral resources, soil types and agricultural value, access to potable water, access to travel corridors (networks of footpaths and roadways, navigable coastline and inland waterways), and the accessibility, seasonal variation and diversity of targeted flora and fauna species. The following paragraphs describe the environmental attributes specific to the Assessment Area.

Higher ground and elevated positions, surrounded by low or level topography, often indicate past settlement and land use. Other geographic features, such as eskers, drumlins, sizable knolls, plateaus, and distinctive land formations (e.g. rock outcrops, caverns, mounds) are also strong indications of archaeological potential. The Assessment Area is located within the *Northumberland Strait* subunit (#521a), of the greater terrestrial area known as the *Northumberland Plain* (Davis & Browne 1996:108). The *Northumberland Strait* is underlain by the fine red sandstones of the Late Carboniferous period. Two broad folds of these sandstones run from Pugwash Harbour west to Minudie and another from Malagash Point to east of Springhill. Minor folds also run east-west, with differential erosion creating ridges and valleys across an undulating landscape. These alternating ridges and valleys determine the outline of the *Northumberland Strait* coastline, with ridges running north-south protruding into the ocean at places like Malagash Point and Cape John. Pictou Island, for example, is the remnant of a ridge that projects into the middle of the *Northumberland Strait* (Davis & Browne 1996:108). Valleys form the inlets and harbours along the coast where river estuaries were drowned by rising sea levels.

The soils associated with the Assessment Area are *Hansford* soils, derived from red and grey Carboniferous sandstone (Webb 1991:41). Soils from the *Hansford* group are found in the

Northumberland Lowlands, below 160 metre elevation, and occur northeast of Pictou and north of Trenton. These soils are comprised of a friable sandy loam to gravelly sandy loam overlying reddish brown sandy loam to gravelly loam glacial till. Soils specific to the Assessment Area generally occur in poorly drained depressions that remain saturated for much of the season (Webb 1991: 42). Due to water retention, soils in this area are considered poor for agriculture and forestry. Salt marsh deposits, composed of grey silty clay loam marine sediments, are also found within the Assessment Area. These sediments are deposited, reworked and flooded by tidal waters along the coast and tidal rivers of the Northumberland Strait (Webb 1991:73).

Proximity to water, for drinking, resource exploitation and transportation, is a key factor in identifying precontact and historic Mi'kmaw, as well as early Euro-Canadian and African Canadian, archaeological potential. The Northumberland Strait lowlands lie north of the main watershed boundary that bisects the Cobequids, with five secondary and tertiary watersheds draining north (Davis & Browne 1996:108). Rising seas over the last several thousand years have inundated former valleys along the coastal plain, creating numerous biotically rich estuaries and inlets (Davis & Browne 1996:108). Lakes are infrequent and tend to be shallow and elongated. Beaver-influenced wetlands are common and develop into wet meadows and shrub swamps. Wide floodplains occur along the slower moving, mature rivers such as the Pictou, West, Middle, and Merigomish Rivers (Davis & Browne 1996:109). The Assessment Area is located on the north shore of East River, where it enters Pictou Harbour.

Resource areas, including food and/or medicinal plants, and migratory routes and spawning areas, are also considered characteristics that indicate archaeological potential. The Assessment Area occurs in the Maritime Lowlands ecoregion of Loucks' Red Spruce, Hemlock, and Pine (Davis & Browne 1996:108). Forest cover consists of deciduous species and hardwoods including secondary growth Birch, Poplar, Spruce, Fir, and Pine (Cann & Hilchey 1954:30). Along the Northumberland shore, the microtidal environment support large sea meadows of eelgrass and other salt-tolerant species of plants that grow in the numerous coastal lagoons on both sides of the strait (Thurston 2011: 219).

The Northumberland Strait ecoregion contains a variety of terrestrial and aquatic environments that support a range of species. Fur-bearing species like mink, beaver and muskrat are relatively common, alongside smaller populations of red fox and river otter, while Atlantic Salmon, Gaspereau, Brown Trout, and Brook Trout are abundant in freshwater systems. Fisheries officer, Fred H.D. Veith (1886), reported in 1881 that salmon spawned in late fall in a number of the shallow rivers, including the Caribou and Toney rivers (29). The Assessment Area supports predatory and shoreline bird species and the extensive intertidal areas created by the gently sloping sea-bed provide an abundance of waterfowl breeding and staging areas, including along Pictou Harbour (Davis & Browne 1996:110). Freshwater impoundments serve as breeding areas for numerous species of ducks and other waterfowl as well. Species of mollusks, such as Quahog and oyster, are also found in the warm waters and intertidal areas along the Northumberland Strait.

4.1.2 Desktop Results – Paleoenvironmental Context

At the end of the Last Glacial Maximum (LGM), *ca.* 20,000 BP, much of the northern hemisphere was covered in a vast glacier complex made up of three coalescent ice masses, collectively known as the Laurentide Ice Sheet. The ice, which depressed the earth's crust by at least 300 metres and stored a sea-level equivalent of approximately 50 metres, covered much of Canada and the northern United States until it began to retreat approximately 15,000 years ago (Stokes 2017). Initial glacial retreat coincided with the Allerød interstadial, a warm period that occurred between 16,000 and 12,800 years ago and ended with the onset of the Younger Dryas stadial, a cold period that occurred between 12,900 and 12,000 years ago. During the Allerød interstadial, climatic warming reduced most of the ice sheets over present-day Nova Scotia, except those which lingered in the Cobequid, Antigonish and Cape Breton Highlands. As the ice began to melt and retreat, land areas gradually became exposed and vegetation developed, attracting late Ice Age fauna, such as mastodon. At the same time, deglaciation created a complex interplay between emerging land (local isostatic effects) and relative sea levels (global eustatic effects).

The first evidence of deglaciation in the Northumberland Strait is documented *ca.* 14,100 BP in the western portion of the region (Vachhi et al. 2018: 128). The Younger Dryas stadial saw a substantial drop in temperature and a localized re-advancement of remnant ice in Atlantic Canada. Any extant glaciers were reformed, and tundra vegetation was rejuvenated. This included the Northumberland Strait, which saw a significant re-expansion of the remnant ice caps between 13,000 and 12,700 years ago, particularly on Prince Edward Island (Vacchi et al. 2018: 128). Although the ice was an important constraint on the migration and dispersal of flora and fauna during this period, plant and animal life soon returned as the onset of warming ended the Younger Dryas. By *ca.* 12,000 BP, the Northumberland Strait region was totally ice-free. Vegetation gradually colonized the newly exposed ground, facilitating the migration of caribou and other fauna, which were, in turn, followed by Palaeo-Indians, the earliest known human presence in the region (Pielou 1991: 2; Stea 2011: 55).

Throughout the Late Pleistocene and Holocene periods, changes in relative sea-level (RSL) played a significant role in determining human mobility and environmental conditions. RSL histories in the Maritimes vary from region to region, affected by both local and global conditions. Generally, sea-levels in the Northumberland Strait dropped to a lowstand of -35 metres in the Late Pleistocene (Kranck 1972) followed by a continuously rising RSL throughout the Holocene to reach present sea-levels (Scott et al. 1987; Vacchi et al. 2018:136). Approximately 11,000 years ago, while the landmass was emerging through isostatic rebound and sea-levels were lower, a land bridge connecting Epekwitk (Prince Edward Island) to the mainland appeared (Keenlyside & Kristmanson 2016). Referred to as Northumbria, this exposed land, which covered approximately 250 kilometres at its maximum extent, was likely a broad grassland with low relief, and an attractive habitat for terrestrial mammals, such as migrating caribou, and a variety of freshwater fish and waterfowl (Keenlyside 1983). Analysis of palaeo-relief has identified a potential fluvial system from the emergent Northumberland Strait, with the principle river draining east and fed by Prince Edward Island and the mainland (Shaw 2005: 7). The area was subsequently reflooded

by rising water levels (ca. 5,000 BP), and the Northumberland Strait became a continuous body of water (Shaw et al. 2002: 1875). Sea-levels continued to rise from 5,000 BP to present, with evidence from Baie Verte suggesting there may have been a period of rapid acceleration of RSL rise beginning 5,000 BP and ending approximately 3,500 years ago (Scott et al. 1995:2078). However, the dataset was too limited to confidently constrain this event. Based upon data from tidal gauges in Charlottetown, sea-levels in the region are currently rising at approximately 3.22 millimetres/year (NOAA *Sea Level Trends*).

4.1.3 Desktop Results – Prehistory of the Maritime Provinces

There is general consensus regarding the broad patterns of regional cultural history in north-eastern North America, and recognized terminology has been established for precontact development periods based on current archaeological knowledge (**Table 1**). Although our understanding of the prehistoric archaeology of the Maritimes is fragmented, available archaeological data reveals evidence of Indigenous occupation spanning most of the time period from the retreat of the last glacier to European contact and beyond. The prehistory of the region is thus discussed within the parameters of the existing cultural history framework. Prehistoric cultures are defined by a shared technology, settlement and subsistence patterns, and social systems, including political and religious beliefs, existing during a specific time period (Deal 2016: 28). It is important to note, however, that the cultural history sequence and terminology presented below has been imposed exclusively by archaeologists and does not reflect Mi'kmaw perceptions of the past. Although an historical timeline has been developed for Nova Scotia (Lewis 2006; Table 1) that is more attuned to Mi'kmaw awareness and culture, it cannot be presumed to fully accommodate all Mi'kmaw within the Maritimes.

Table 1: Archaeological Periods for the Maritime Provinces

Archaeological Period	Date Range (BP = before present)	Mi'kmaq
Precontact Period	ca. 13,000 – 500 BP	<i>Sa'qiwe'k L'nu'k</i> The Ancient People
Palaeo Period	ca. 13,000 – 9,000 BP	
Early	ca. 13,000 – 10,000 BP	
Late	ca. 10,000 – 9,000 BP	
Archaic Period	ca. 9,000 – 3,000 BP	<i>Mu Awsami Kejikawe'k L'nu'k</i> The Not So Recent People
Early	ca. 9,000 – 7,000 BP	
Middle	ca. 7,000 – 5,000 BP	
Late	ca. 5,000 – 3,000 BP	
Terminal	ca. 4,000 – 3,000 BP	
Ceramic Period	ca. 3,000 – 500 BP	<i>Kejikawe'k L'nu'k</i> The Recent People
Early	ca. 3,000 – 2,000 BP	
Middle	ca. 2,000 – 1,000 BP	
Late	ca. 1,000 – 500 BP	
Historic Period	ca. 1500 – Present	<i>Kiskukewe'k L'nu'k</i>
Contact Period	ca. 1500 – 1600 AD	
Early	ca. 1600 – 1750 AD	
Late	ca. 1750 – 1900 AD	
20 th Century / Recent	ca. 1900 – Present	

Palaeo-Indian Period

In north-eastern North America, the Palaeo-Indian period generally begins approximately 13,000 years ago. Based upon the established sequence of diagnostic projectile point styles, the period can be divided into Early and Late subperiods, and several regional phases have also been identified (Deal 2016:35). Palaeo-Indian artifacts have been recovered throughout the Maritimes; however, relatively few sites have been excavated.

The movement and melting of the glaciers changed sea levels, temperature, precipitation and greatly influenced the animals and plants that could survive in the region. Climatic changes associated with the Younger Dryas dramatically altered floral and faunal colonization patterns, which undoubtedly influenced human resource procurement strategies and migration patterns. Tundra vegetation, characterized by sedges, willows, grasses, sage, alders and birch, developed behind retreating ice and was well-suited to the emerging peri-glacial landscape. This new environment attracted migrating caribou herds, followed by people of the north-eastern Palaeo-Indian tradition. The earliest evidence of human presence in what is now Nova Scotia is the Debert-Belmont complex, representing one of the largest and most intact Palaeo-Indian sites in North America and the oldest sites of human habitation in Eastern Canada (Rosenmeier et al. 2012:113). The inhabitants of Debert and other Palaeo-Indian sites in the region are generally described as mobile hunter-gatherers dependent upon migrating caribou herds, however there is evidence to suggest the presence of a biologically rich habitat that supported diverse subsistence patterns (Deal 2016:40).

The diagnostic artifact of the Palaeo-Indians is the fluted projectile point, which has a central channel, or flute, running up both faces of the point from the base. This distinctive flute likely facilitated hafting onto a spear or lance (Bourque 2001:20). In addition to fluted projectile points and manufacturing debris, other tool forms from the period are known, including graters, bifacial knives and spurred scrapers, suggesting a range of living activities, including hunting and processing. Isolated finds with characteristics of Palaeo tool assemblages have been recovered from across the Maritimes and, although lacking temporal control, illustrate widespread distribution of Palaeo-Indians throughout the region.

With the gradual onset of warmer temperatures at the end of the Younger Dryas, the tundra-like vegetation was replaced by wide-spread closed forests, including temperate conifer and deciduous populations, more suitable to solitary cervids like moose and deer. The Palaeo peoples had to respond and adapt to this changing environment and develop new procurement strategies, including changes to their lithic tool kit (Deal 2016:43). The most significant and discernible change is the replacement of the fluted projectile points with non-fluted forms, which is generally used to signify the beginning of the Late Palaeo-Indian period (Deal 2016:43). Based on this changing technology, two distinct groups have been tentatively identified in the Maritime region; one manufacturing parallel-flaked, lanceolate, unfluted projectile points and the other using small triangular projectile points (Deal 2016:49). Although isolated artifacts have been recovered from coastal locations suggesting seasonal use of coastal resources, acidic soils and sea-level rise have prevented a broader understanding about the nature and associated lifeways of Late Palaeo-Indian culture. Indeed, the margins between the Late Palaeo-Indian period and the Early Archaic period are poorly defined.

Archaic Period

Our understanding of the Archaic period is also somewhat limited. The period has been divided into Early, Middle and Late subperiods, representing a mosaic of cultures spanning the millennia between the Late Palaeo-Indian period and the appearance of ceramics. Evidence related to Archaic peoples in the Maritimes is poorly represented in the archaeological record before the appearance of Late Archaic cultures around 5,000 BP, although there is some evidence for continuous occupation in coastal areas (Tuck 1991). A rapid climatic warming around 8,000 years ago, known as the Hypsithermal interval, led to an increasingly diverse forest. Boreal species began to decline while pine, birch and oak spread throughout the region, attracting a variety of fauna, including moose, deer, bear and other smaller mammals. Site locations in the Maritimes suggest an interior lacustrine and riverine settlement pattern, along with coastal adaptation and occupation; however sea levels for the region at 7,000 years ago were approximately 30 metres below present level and virtually all Early Archaic coastal sites have been eroded by sea-level rise and attendant shoreline erosion (Deal 2016:54; Bourque 2001:39). Evidence also suggests a variable subsistence pattern based on terrestrial mammals, anadromous and catadromous fish species and sea mammals (Deal 2016:58).

Early and Middle Archaic peoples preferred manufacturing stone tools from raw materials such as quartz and rhyolite, and an abundance of quartz-flaking debris is one of the hallmarks of Early Archaic sites. The period is also characterized by the development of ground stone tools, such as full-channelled gouges and rods used, at least in part, for woodworking, adzes, hand spears, atlatls and specialized mortuary artifacts (Deal 2016:58). Furthermore, a high degree of specialization is apparent, including tools and ornaments made of ground slate, bone and ivory, as well as evidence of increased trading activity. Mortuary practices also become evident in the archaeological record of the Maritime Peninsula in the Early Archaic period (Bourque 2001:42). Diagnostic projectile point styles include stemmed and bifurcate-base points.

During the Late Archaic period, a hemlock and oak forest developed in Nova Scotia and New Brunswick, followed by a spruce, birch and beech forest, which is associated with a decrease in temperature around 4,000 BP. (Deal 2016:54). At the same time, there appears to be a rapid re-emergence of evidence for the presence of Indigenous people in the Maritime region, although it is important to note that the modern shoreline was established approximately 3,000 years ago, thus providing more opportunity for encountering Late Archaic period material culture. The Late Archaic period includes two distinctive cultural traditions; one that is primarily a coastal marine adaptation, sometimes referred to as the Maritime Archaic tradition, and one that is interior adapted, known as the Laurentian Archaic tradition. Similar tool forms associated with both traditions suggest a shared technology and interlocking trade networks. Site assemblages include adzes, gouges, plummets and ulus but the main diagnostic tool form of this period is the slate bayonet, which is often associated with burials (Deal 2016:60-65). No Late Archaic habitation sites have been excavated in the Maritime Provinces.

The final Archaic tradition in the Maritimes is often referred to as the Terminal Archaic period. Between 4,000 and 3,000 years ago, a distinct tradition with markedly different technology, subsistence practices and mortuary rituals, known as the Susquehanna tradition, emerged across the Northeast. The mechanism by which these characteristic features reached the Maritimes, whether by migration or cultural diffusion, has yet to be determined. Nevertheless, artifacts associated with the Susquehanna tradition have been identified throughout Nova Scotia and New Brunswick. A settlement-subsistence system that made seasonal use of both coastal and interior resources is evident and interior Susquehanna sites were generally located where fish were plentiful and especially where the seasonal capture of anadromous fish was relatively easy (Tuck 1991; Bourque 2001:62). These sites are characterized by a distinctive tool making tradition, including broad-bladed, broad-stemmed projectile points, drills, polished stone atlatl weights and grooved axes.

Ceramic Period

The Ceramic period is the last major cultural episode in the Maritimes prior to European contact and has been divided into Early, Middle and Late subperiods. Although cooking containers made of wood or bark were used during earlier periods, the Ceramic period is defined by the introduction and full-scale adoption of pottery by Indigenous peoples in the region. The Early Ceramic period is characterized by cylindrically shaped, pointed based vessels, which were textured with fabric impressions. The appearance of this early pottery may be associated with large seasonal gatherings, more complex mixtures of food sources and the preparation of aquatic resources (Deal 2016:84). Over the next two millennia, pottery style underwent a series of changes and more numerous and larger vessels appeared during the Middle and Late Ceramic periods. The salient characteristics of the Middle Ceramic period are thin-walled, grit-tempered vessels decorated with pseudo-scallop or fine dentate stamping techniques, while the quality of Late Ceramic period pottery declined with vessels becoming thicker, coarser and less well fired (Davis 1991). Later vessels feature a more spheroidal shape and the last major decorative form is known as cord-wrapped stick, which remained the dominant decorative technique until ceramic usage terminated shortly before sustained European contact (Rutherford 1991). Indeed, decoration and temper are considered temporal indicators.

The archaeological record suggests significant population growth during the period with the highest concentration of known occupation sites found along the coasts, perhaps representing locations of long-term occupation. Interior sites may represent more specialized locations associated with the procurement of single resources, such as anadromous fish and eels, and residue analysis indicates a predominately marine diet in traditional Mi'kmaw territory (Davis 1991). The Ceramic period lithic industry is defined by regional variation and characterized by changes in flint-knapping and raw materials. Distinctive projectile point styles have been associated with the appearance of bow-and-arrow technology, which had replaced the use of the spear-thrower by the time of European contact (Bourque 2001:91). Shellfish exploitation also emerged as an important socio-economic activity and coastal shell middens were common features associated with Ceramic period occupation in the region.

Elaborate mortuary rituals flourished during the Early Ceramic period and both Meadowood- and Adena-related burial sites have been discovered in the region. Meadowood burials, which resemble those of the same tradition in New York State, include side-notched projectile points, cache blade, slate gorgets, and bird stones, and are often located near habitation sites or along the coast (Deal 2016:87). Adena-related burials, also referred to as the Middlesex Phase, are often, although not exclusively, identified by the presence of burial mounds and include various exotic grave offerings, such as stemmed points, gorgets, block-ended tubular pipes, celts and copper beads. Stemming from the Ohio Valley, numerous Adena burial sites have been identified throughout the region, including the Augustine burial mound in New Brunswick; however, there is limited evidence to suggest these burial practices reflect a physical movement of people into the region. The absence of habitation sites associated with a peripheral culture suggests this cultural manifestation represents a diffusion of Adena ritual elements into the region, which were adopted by local peoples (Deal 2016:93). This scenario also implies contact, direct or otherwise, with extra-regional groups and external influences (Rutherford 1991). Nevertheless, these elaborate burial practices did not survive into the Middle Ceramic period and were replaced by simple primary burials with limited grave inclusions (Deal 2016:102). The later period is also characterized by the exploitation of a wider range of local resources and inter-regional trade (Deal 2016:103).

Protohistoric Period

The Middle and Late Ceramic periods represent a pattern of settlement and subsistence that persisted until European contact. The initial period of contact, heavily influenced by European fishermen and traders, is often referred to as the Protohistoric period, generally held to begin in the sixteenth century. Our understanding of Mi'kmaw lifeways during this period is enhanced by available ethnographic sources, as well as archaeological evidence, often in the form of "copper kettle burials". Single component Protohistoric period sites are rare in the archaeological record, as local Indigenous populations continued to occupy Late Ceramic period sites; however, subsistence patterns were dramatically altered by the mid-sixteenth century. By this time, "Mi'kmaw groups who normally wintered on the coast, were spending the late winter and early spring inland to harvest furs and moving to the coast in the late spring and summer to trade with the Europeans" (Deal 2001). Although this period is often represented in the archaeological record by the presence of trade beads and copper tinkling cones, the most distinct sites are associated with the Copper Kettle Burial tradition, dating from around 1500 to the late 1600s (Deal 2001). This tradition has been associated primarily with the Mi'kmaq, who occupied most of the region's coastal areas and were heavily involved in the fur trade. Copper Kettle Burial sites are marked by overturned kettles and caches of European manufactured trade goods, including glass beads, iron swords, knives and daggers (Deal 2001). By the end of the seventeenth century, contact has resulted in the introduction of European goods, a destabilized human-ecosystem and a wave of epidemics that devastated Indigenous populations.

4.1.4 Desktop Results – Archaeological Context

Registered archaeological sites provide evidence of Indigenous occupation of Pictou Harbour and its environs for thousands of years, dating to at least the Ceramic period (*ca.* 3,000-500 BP), and potentially earlier. Artifacts identified range from lithic debitage to more formal tools such as projectile points and bifaces. The abundance of stone celts and adzes recovered from sites in the area indicate wood working activities, perhaps in the construction of dugout canoes, domestic sites, or fishing infrastructure.

A review of the MARI database determined there are 20 known archaeological sites within a 10-kilometre radius of the Assessment Area, 17 of which contain Indigenous cultural material (**Table 2**). Many of these sites were first identified during the coastal surveys of early professional archaeologists W.J. Wintemberg and Harlan Smith in 1913. Wintemberg and Smith also examined the collection of Reverend George Patterson, a local historian and early archaeologist operating in the late nineteenth century (Deal 2016: 4). Unfortunately, details on individual sites are fragmentary and little information is available in the MARI database.

A total of 16 precontact sites have been registered in the MARI database within 10 kilometres of the Assessment Area, as well as one Protohistoric site (**BkCp-01**). These sites populate the inner shores of Pictou Harbour, the shores of the Northumberland Strait near Black Point, and extend into the interior along the East River of Pictou. Most sites were identified on the basis of isolated finds and eroded surface material, many of which came from the collection of Reverend Patterson.

There is one registered archaeological site in proximity to the Assessment Area. In 1913, having read an article published in the *Pictou Advocate* in September of 1912, Wintemberg and Smith recorded the discovery of “stone axes or celts, and knives ... a few hundred yards north of Indian Cross point, a little below Ives point” (Smith & Wintemberg 1929:15). Although this location was subsequently registered as **BjCq-05**, there is no additional information regarding the site or the recovered artifacts. A precontact burial is suggested by the discovery of “slate knives” at a former shell midden site near Ives Point, approximately 500 metres southeast of the study area (**BjCq-04**). The “slate knives” described by Wintemberg, may represent “slate bayonets”, a type of ground stone artifact commonly associated with burials in the Maritimes, which some suggest were manufactured for ceremonial purposes (Deal 2016: 64-66). Ground stone artifacts are also commonly associated with the Archaic period (*ca.* 9,000 – 3,000 BP), and the presence of these artifact types would extend the archaeological evidence of Indigenous occupation back several thousand years. However, with only a written description of the artifacts, it is not possible to confirm temporal context. Wintemberg did attempt to relocate **BjCq-04** in 1913 but was unable to find evidence of the site (Wintemberg & Smith: 1929:15). The artifacts were discovered during development of the branch railway in 1912, and it is possible the site was destroyed during construction.

BjCp-01 consists of three celts found near Big Gut, Pictou Harbour, located approximately 2.8 kilometres southeast of the Assessment Area. The celts, reported by Wintemberg in 1913, are recorded as part of the Patterson Collection. Four of the identified precontact sites (**BjCq-03; BjCq-04; BjCp-02; BkCp-02**) are shell middens, archaeological sites formed through the accumulation of household waste, primarily

mollusc shells. Shell middens often mark the location of former habitations and villages, as evidenced by the presence of formal tools and faunal material at these sites. Shells middens located in proximity to the Assessment Area provide strong evidence of both nearby precontact settlement, as well as subsistence practices reliant upon marine resources. Wintemberg took particular interest in these features during his work along the Northumberland Strait in the early twentieth century, recording numerous “shell heaps” composed of mussel, oyster, and clam shells (Wintemberg & Smith 1929:15). These sites were identified on the basis of artifacts in the Patterson Collection, and not through any formal excavation.

The Hopp’s Site (*BkCp-01*), approximately 5.5 kilometres north of the Assessment Area, is one of the most important and better-known archaeological sites in the region, representing a period of cultural contact between Mi’kmaq and early European traders just before the devastating effects of widespread disease and the dispossession of traditional lands. First discovered by Mr. Kenneth Hopps on his property in 1955, the Hopp’s Site consists of two copper kettle burials and associated grave goods dating to the late sixteenth century (Whitehead 1993: 51). Two burial pits were discovered in 1955 and 1956 by the property owner, who excavated the remains with the assistance of J. Russell Harper, Archivist at the New Brunswick Museum (Harper 1957). The burials were both secondary depositions, meaning the bodies were first laid in the open air for several months before their bones were interred in the earth. The first pit contained the skeletal remains of a single adult male, while the second pit contained skeletal fragments of a child, a woman, and five other adults (Whitehead 1993: 51). Over 1000 items have been catalogued from the Hopp’s Site, some with multiple components (Whitehead 1993:55). Artifacts recovered in association with the burials include goods of both European and Mi’kmaq manufacture including over 200 iron spear points, copper knives, swords, glass trade beads, furs, birchbark goods, and the largest collection of worked plant fibre in the Maritimes (Whitehead 1987: 42). Similar grave goods and artifacts have been discovered in other copper kettle burials, including the Northport site (*BICx-1*) located west of Pictou on the Amherst Shore.

Recent archaeological work in the area, like much of the province, has been in response to development activities. Two archaeological sites (*BjCq-08 and A’se’k I*) were identified by formal testing in 2017, though only *BjCq-08* is currently registered in the MARI database. Testing in 2017 for the Northern Pulp Effluent Treatment Plant Replacement identified a multicomponent site approximately 2.2 kilometres north of the Assessment Area (*BjCq-08*). Twenty-one shovel tests, excavated along the Abercrombie Point shoreline, recovered 22 precontact artifacts and 32 historic artifacts (Ingram 2018). Disturbance in the area had resulted in the mixing of precontact and historic deposits. Artifacts recovered include the midsection of a biface, one scraper, and one flake exhibiting use-wear. The *A’se’k I* site, a small precontact habitation site was also identified as part of the 2017 Boat Harbour Remediation project (Sanders 2018). Testing recovered 28 flakes of banded rhyolite, near the southwestern shore of Boat Harbour. At the time of writing, *A’se’k I* has not been registered in the MARI database. Outside of the Hopp’s Site, *Puknipkejk I* and *A’se’k I* are the only precontact sites within 10 kilometres of the Assessment Area that have been subject to formal testing.

A total of six historic sites have also been identified within a 10-kilometre radius of the Assessment Area, two of which are multicomponent sites that also bear evidence of precontact Indigenous occupation. The closest sites are the previously mentioned **BjCq-08**, and the Wreck of the Dieuse (**BkCq-22**), a 1925 shipwreck located in the middle of Pictou Harbour. Archaeologist Helen Sheldon recorded three historic sites near New Glasgow including the early nineteenth century home of Reverend Dr. McCullough (**BkCq-21**), the former location of the Stellerton pumphouse (**BkCq-06**), and the Albion Iron Foundry (**BkCq-05**). **BkCp-09**, located approximately 5 kilometres northwest on Browns Point, is also a multicomponent site, identified through previous collections, where precontact adzes, projectile points, and a biface were discovered in addition to nineteenth century tokens and an iron axe. Archaeological reconnaissance near Boat Harbour also lead to the discovery of three historic homesteads dating to nineteenth century Euro-Canadian occupation (Sanders 2018). At the time of writing, none of these sites have been registered in the MARI database.

Table 2: Previously registered MARI sites within 10 km of the proposed Project

Location	Site Name	Permit	Archaeology Period	Description
-	BjCp-01 (Wintemberg)	N/A	Precontact	Three stone celts recorded in the Patterson Collection, near Big Gut.
2.3 km SSE	BjCq-03 (Wintemberg)	N/A	Precontact	Shell midden, two stone adzes, one double-bitted, found in the Patterson Collection. Site located on the west bank of the East River of Pictou.
500 m SE	BjCq-04 (Wintemberg)	N/A	Precontact	Shell midden and ground stone tools including “slate knives”. Site formerly located on Ives Point, since destroyed.
~1 km N	BjCq-05 (Smith)	N/A	Precontact	Stone celts and knives located below Ives Point and north of Indian Cross point.
2.1 km N	BkCq-08	N/A	Precontact	Isolated finds, two celts found at Christie Point on the south shore of Pictou Harbour.
2.8 km NW	BjCq-08 (Ingram)	N/A	Multicomponent	Puknipkejk 1, precontact and historic artifacts recovered during testing near Abercrombie Point, Pictou Harbour.
	BkCq-22 (Griffin)	N/A	Historic	20 th century, believed to be shipwreck of the Dieuse from 1925. Located in the middle of Pictou Harbour.
3.5 km NW	BkCq-01 (Wintemberg)	N/A	Precontact	Unknown find, on north shore of Pictou Harbour
4 km N	BkCq-20 (Nash)	N/A	Precontact	Surface scatter, artifacts eroding from embankment at Moodie Cove.
3.5 km NW	BkCq-11 (Smith & Wintemberg)	N/A	Precontact	Isolated find, stone adze in Patterson Collection, found along beach on the north shore of Pictou Harbour.
3.5 km NW	BkCq-02 (Erskine)	N/A	Precontact	Isolated finds, represents two sites at Pictou Harbour, one near old wharf as well as arrowheads picked up along small brook to the south.
5 km N	BkCp-01 (Harper)	N/A	Protohistoric	Hopp’s site, copper kettle burials, located on northern shore near mouth of Pictou Harbour.

2.8 km NW	BjCq-01	N/A	Precontact	Unknown find located at Abercrombie Point in Pictou Harbour.
9.5 km E	BjCp-02 (Smith)	N/A	Precontact	Several shell heaps found near old Reidway Post Office.
8.3 km SE	BjCp-03	N/A	Precontact	Isolated find, celt, near New Glasgow along the East River of Pictou.
4.2 km NW	BkCq-21 (Sheldon)	A1997NS42	Historic	19 th century, historic home and grounds built by Reverend Dr. Thomas McCulloch in 1803.
5 km NW	BkCq-09	N/A	Multicomponent	Artifact collection containing precontact adzes, knives, stemmed and unstemmed projectile points as well as nineteenth century tokens and an iron ax. Found near Browns Point.
9 km S	BjCp-06 (Sheldon)	A1987NS01	Historic	Historic, 19 th century, old Stellerton pumphouse.
5.4 km NW	BkCq-13	N/A	Precontact	Isolated find, celt found along West River Road, on the north shore of Pictou Harbour.
9 km S	BjCp-05 (Sheldon)	A1988NS7; A1989NS21	Historic	19 th century, Albion Iron Foundry.
5.7 km NW	BkCq-12 (Smith & Wintemberg)	N/A	Precontact	Isolated find, fragment of stone celt or adze in the Patterson Collection. Found near Town Gut, on north shore of Pictou Harbour.

4.1.5 Desktop Results – Historical Context – Indigenous

The Assessment Area is located within the traditional Mi'kmaw territory known as Epekwitk aq Piktuk, which is comprised of Prince Edward Island and the lowland area along the Northumberland Strait, spanning Pictou and Antigonish counties in Nova Scotia (Sable and Francis 2012: 21). The name “Pictou” is derived from the Mi'kmaw word Piktuk, meaning “explosion place”, which Mi'kmaw linguist Bernie Francis believes is likely linked to the smell of sulfur in some parts of the region (CBC News, 2015). Twentieth century sources indicate that Piktuk has long been a traditional gathering place for the Mi'kmaq, and the place where Glooscap taught the people arts and crafts (Hoffman 1955: 548).

Before European disruptions, Mi'kmaw life-ways involved maritime adaptations and seasonal mobility oriented to intercept available marine and freshwater aquatic resources (Lewis 2007). The Mi'kmaq followed a general seasonal pattern, living on the coasts during the spring and summer, moving upriver and inland during the fall and winter, though this pattern varied by geographic region. In 1611, Father Biard indicates the Mi'kmaq hunted calving seals in January, not only for their flesh and fur, but for fat to sustain them throughout the year (Whitehead 1991:34). Black Bear and Moose were also hunted in late autumn and winter and valued for their fur, flesh and fat. Emphasis was placed on a sustainable form of living, to ensure food for future generations. In an interview (*ca.* 1740), Shawman-Chief Arguimaut (L'kimu) from Prince Edward Island describes pre-European hunting and states, “We killed only enough animals and birds to sustain us for one day” (Whitehead 1991:10). Descriptions of Pictou Harbour by

French trader Nicholas Denys in 1654 describes a land of abundance, of large meadows with ample game, shorelines fringed with tall pine, and waters filled with large quantities of “immense oysters” (Denys 1908: 189-191).

Following intermittent and later sustained European contact (*ca.* 1500 – 1650 AD), the Mi’kmaq shifted from long-established, sustainable food harvesting practices, to subsistence patterns based on trading furs for European commodities. Whether the shift was by choice or necessity, the consequences were significant as overhunting led to stress within Mi’kmaq society. By the mid-seventeenth century, and throughout the eighteenth century, the fur trade had evolved from opportunistic exchanges with fishermen-entrepreneurs on the beach or at anchor. Permanent and semi-permanent European settlements and fishing stations, such as those found at Port La Tour in Shelburne County, St. Peters in St. Ann’s Bay, and later at the fortress of Louisbourg, gave rise to more structured transactions of higher volume for goods and credit at established trading posts (Johnston 2004). By the mid-eighteenth century, “[the] Mi’kmaq were caught in the middle, suffering both the indifference and political machinations of their French co-religionists and the campaigns of the English, who loosed their Mohawk allies against them” (Whitehead 1991:77). In 1761, the Mi’kmaq negotiated a truce with the English and, though a measure of peace was formed, the erosion of the traditional Mi’kmaq way of life continued, with devastating effect to the people:

“By 1761.... the great numbers of Loyalist settlers, fleeing the American Revolution, made vast inroads on traditional Mi’kmaq lands. Game was no longer plentiful; salmon rivers were blocked by dams and choked with sawdust. The fur trade was in decline, and smallpox epidemics swept the Maritimes. The Mi’kmaq, their seventeenth-century population already reduced by approximately 90 percent, were particularly hard hit....a change which had begun in 1500.” (Whitehead 1991:77)

By the turn of the nineteenth century, the Mi’kmaq in Nova Scotia were in dire conditions. Despite earlier guarantees to access traditional hunting territories, the expansion of European settlements and destruction of the natural environment denied Mi’kmaq access to important resources (Wynn 2005: 23). The colonial government of the time did little to alleviate the worsening conditions, and policies generally focused on the assimilation of the Mi’kmaq people into settler society. An annual relief fund was set aside in 1786, however the sum was small, and was never enough to address the problem of food scarcity, clothing, and lack of medical services (Paul 2008: 197). In spite of the hardship and suffering endured during the nineteenth and twentieth centuries, many Mi’kmaq communities persisted in a migratory lifestyle, and maintained a distinctive identity against the threat of cultural erosion.

Historically, Piktuk remained an important place to the Mi’kmaq after European contact. At least two villages were formed along Pictou Harbour including Wisasq at Boat Harbour, and Oqwa’skuk at the mouth of East River on the eastern shore (Hoffman 1955: 548). Wisasq may represent two encampments, with a second further to the west (Mi’kmaq Place Names Digital Atlas, 2019). Oqwa’skuk, at the mouth of the East River, was cleared by later settlers, however artifacts found at the village site in the nineteenth

century indicate it was occupied by the Mi'kmaq both before and after European contact (Patterson 1877: 28).

Burial sites, containing the ancestors of Pictou Landing First Nation, are known in the vicinity of Pictou Harbour. The historic burial ground at Indian Cross Point, or Sukle'katik, remained in use until the 1870's. Patterson, writing in 1877, describes the Indian Cross Point burial ground:

“Here the Indians buried till a few years ago. Many of the graves can still be traced by rows of flat stones by which they were originally covered, which have now sunk to the level of the ground or perhaps were always in that position, and are partly overgrown with grass. The water is wasting away the bank, so that human bones may be found along the shore” (28).

It is not known how long into the past the burial ground at Indian Cross Point was used, though there is evidence that it stretches back hundreds of years, and possibly even prior to the arrival of Europeans. A 1998 study by Douglas Brown indicates the burial ground was in use well before in 1784, when the land was sold to James Carmichael by two Mi'kmaw chiefs, “Major Paul and Sapier”. In the conveyance, “the burying ground was reserved for the continued use of the Mi'kmaq” (Brown 1998: 2). Patterson is more specific:

“On a point a little lower down the river [East River] was another burying place. Here stood at the arrival of the English settlers, and until a recent period, a large iron cross, about ten feet high. Hence the place is still known as Indian Cross Point, though the locality is known among the Micmacs, as Soogunagade, or rotting place.” (28).

The name itself, Indian Cross Point, is derived from the large iron cross, noted above, that once stood on the point. According to Patterson, this cross was erected prior to the arrival of settlers to Pictou Harbour in 1765. Assuming the iron cross did indeed predate the arrival of “English” settlers, it has been suggested that it may also have marked the location of a French mission that provided Christian services to the Mi'kmaw of Pictou Harbour sometime in the seventeenth and eighteenth centuries (Sanders 2018:19). Similar iron crosses have been found at contemporary French mission sites throughout the Maritimes. The Mi'kmaq continued to use the burying ground until approximately 1867, at which point the land containing burials was already actively eroding and human remains were falling from the bank to the beach below. A few years prior to 1867, it is recorded that a number of Mi'kmaw made attempts to repair the burial site due to the effects of tidal erosion and reinterred exposed human remains a “short distance inland from the bank” (Brown 1998: 2;5). The cross, which may have occupied the most westerly point of land extending into the East River, was subsequently lost and the exact location of the burying ground was forgotten over time.

Attempts to relocate the burial ground were made in 1995 by the Province of Nova Scotia and in 1997 by Douglas Brown, who concluded the cemetery was likely located on high ground just north and east of the existing ROW on property owned by Mr. William Palmer of Pictou Landing (Brown 1998: 2) (**Plate 3**).

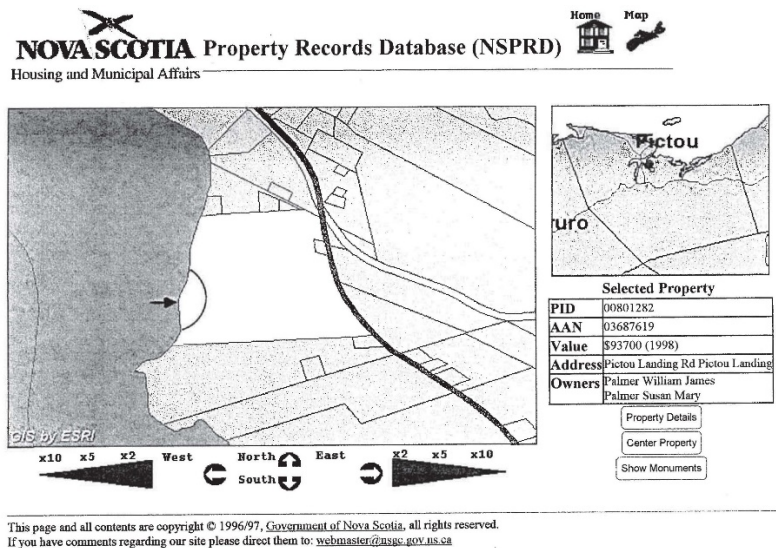


Plate 3: The Palmer property showing Brown’s potential location of the burying ground.

Brown also records an interesting reference found in *The History of the Catholic Church in Northeastern Nova Scotia*, which states:

“There was an Indian village at the mouth of the East River, and a short distance to the south of this village there was an Indian cemetery which was marked by an iron cross ten feet high.”

It is possible the “Indian village” noted above is represented by **BjCq-05**, where Wintenburg recorded the discovery of “stone axes or celts, and knives ... a little below Ives point” (Smith & Wintemberg 1929:15). If so - and if the village and cemetery were associated - the use of Indian Cross Point as a burial ground may extend into the precontact period and may be associated with **BjCq-04**, where Wintemberg noted the presence of “slate knives” or bayonets.

In any case, Brown’s research contains several important points relevant to this assessment:

- 1) The location of the burial ground was on or near the bank of the shore of the East River.
- 2) There are newer graves located inland where the Mi’kmaq reinterred remains that had eroded from the bank.
- 3) The Mi’kmaq attempted to stop the erosion by placing large and small boulders at the site of the erosion.
- 4) The graves were marked by rows of flat stones, which are now overgrown with grass.
- 5) The burial ground must have been on higher ground for the remains to have fallen to the shore.

Although the exact location on the burial ground remains unknown, it appears to be located in the vicinity of the shoreline in the southeastern portion of the Palmer property and may extend onto the adjacent property to the south, where the pipeline terminates.

Piktuk was a place of gathering for Mi'kmaw throughout the region. Nineteenth-century historian Reverend George Patterson (1877) describes a gathering of hundreds of Mi'kmaw in 1779, possibly to discuss war with the English, which caused no small amount of consternation amongst local settlers (106). Though this gathering dispersed peacefully, Mi'kmaw continued gathering annually, either at Fraser's Point near Trenton (today known as Abercrombie's Point), or Middle River Point. Locals report that at times over one hundred canoes were drawn up to shore. The gatherings lasted several days, during which races, singing, games, and feasts were held (Patterson 1877: 188). These gatherings continued until 1838, when a vessel with smallpox was quarantined at the mouth of Middle River. Afterwards, this gathering is said to have shifted to Indian Island, Merigomish.

Though the colonial government of Nova Scotia allotted 8,650 acres of lands on mainland Nova Scotia as "Indian Reserves" in 1801, ancestors of the Pictou Landing First Nation were largely dispossessed of all traditional lands until 1864, and fought to maintain control of a traditional campsite at Moodie Point (Paul 2008:192, PLFN History, 2018). After decades of being petitioned, the Nova Scotia government acquired 50 acres of land near Boat Harbour, at Moodie Cove, for the exclusive use of the local Mi'kmaq. Moodie Cove may have been a traditional place for Mi'kmaw encampments and is close to a short portage route that connected Pictou Harbour at the head to Moodie Cove to the northwestern cove of Boat Harbour (Sanders 2018: 25). Sanders (2018) elaborates on the linguistic clues which indicate a longer cultural connection to this area as well:

"[t]he existence of names for features at either end of this trail – "Sitmug" ("the shore down by the beach") for the head of Moodie Cove and "A'se'k" ("the other room" or "the other side") for Boat Harbour – suggests that both places were long established cultural centres and were always linked" (25).

In 1867, with Nova Scotia entering Confederation, the federal government of Canada assumed responsibilities over the Mi'kmaw and legal title to the land. In the ensuing years, smaller parcels of land were added to this original 50-acre grant using "Indian money" and became known as Fisher's Grant 24. Over time, this became the First Nation community of Pictou Landing. Pictou Landing's first chief, Chief Peter Wilmot, was a renowned wilderness expert and would go on to establish the First Nation community of Millbrook. Today, Pictou Landing First Nation consists of five reserves including Fisher's Grant 24 (est. 1866), Merigomish Harbour 31 (est. 1865), and part of Franklins Manor near Amherst (est. 1865). Additional reserves were allotted in 1924 at Fishers Grant 24G and in 1961 at Boat Harbour West 37. Numbering approximately 159 people in 1864, Pictou Landing First Nation, at the mouth of Pictou Harbour, has grown to approximately 670 registered members with approximately 500 living on-reserve (PLFN History, 2018; INAC Census, 2019).

Mi'kmaw placenames are known for at least twenty-three landmarks within a 10-kilometre radius of the Assessment Area (**Table 3**). These placenames demonstrate the Mi'kmaq had a significant understanding of the local landscape and resources, as well as a strong cultural connection to the area. Examining the meaning of these placenames, and their geo-spatial context, provides insight into traditional Indigenous knowledge and how these areas were perceived and used in the past. Trenton, for example, is known to the Mi'kmaq as Apji'jkmujue'katik, meaning 'place of the ducks'. This name strongly suggests that Mi'kmaq harvested waterfowl in this area, and that Trenton is a place where migratory birds like ducks established breeding and nesting areas.

Mi'kmaw placenames include descriptions of landforms (*at the narrow harbour, at the yellow/golf-coloured rock, at the opening, at the middle place, at opening by a little rocky hill, diversified by coves*), reference local species and resources (*place of the ducks*), and environmental conditions (*at the explosions, at the erosion place*). Of special interest are the placenames referencing specific human experience on the land (*where the canoes arrive, place of the wood chips, unloading*), and even specific people (*at Daniel's place, at George's*). Several place names are more recent inventions, referencing specific people or activities that post-date European contact (*where people go to get drunk, at the ferry crossing place*), providing further evidence of continued Mi'kmaq habitation in this area throughout the historic period. These places may have older names that are currently unknown.

Table 3: Mi'kmaw placenames within 10 km of the Assessment Area

Modern Placename	Mi'kmaq Placename	Translation	Source
Pictou	<i>Piktuk</i>	at the explosions	Rand 1919: 68; Mi'kmaw Place Names Digital Atlas, 2019
Pictou Harbour	<i>Puknipkejk</i>	at the narrow harbour	Pacifique 1934: 238
Boat Harbour	<i>Wisasoq</i> or <i>A'se'k</i>	at the yellow/gold-coloured rock <i>or</i> the other room	Pacifique 1934: 240; PLFN 2018
Pictou Landing	<i>Puksaqte'kne'katik</i>	place of the wood chips	Pacifique 1934: 240
Trenton	<i>Apji'jkmujue'katik</i>	place of the ducks	Pacifique 1934: 240
Indian Cross Point	<i>Sukle'katik</i>	at the rotting place	Pacifique 1934: 240
East River	<i>Amasipuk</i>	long river or place of ducks (duck land)	Mi'kmaw Place Names Digital Atlas, 2019; Pacifique 1934: 239
Harbour Point	<i>I-tli-ktikia'timk</i>	where people go to get drunk	Mi'kmaw Place Names Digital Atlas, 2019
Brown's Point	<i>Ne'iknejk</i>	at the opening, where it begins to show	Mi'kmaw Place Names Digital Atlas, 2019; Pacifique 1934: 238
Middle River	<i>Mekwaie'katik</i>	at the middle place	Mi'kmaw Place Names Digital Atlas, 2019; Pacifique 1934: 239
Chance Harbour	<i>Menpekwiik</i>	at the erosion place	Pacifique 1934: 240
East River Encampment	<i>Oqwa'skuk</i>	where the canoes arrive	Pacifique 1934: 239
Fishers Grant	<i>Pqutamo'taqniktuk</i>	at the ferry crossing place	Pacifique 1934: 240
Logan's Point	<i>Tanielek</i>	at Daniels place	Pacifique 1934: 238
Little Harbour	<i>Maiko'mijk</i>	erosion or unloading	Pacifique 1934: 240
Island in Little Harbour	<i>Menpekwiik</i>	at George's	Mi'kmaw Place Names Digital Atlas, 2019
King's Head	<i>Panoqopskalajue'katik</i>	at opening by a little rocky hill	Pacifique 1934: 240

Pine Tree	<i>Tua'qnji'jk</i>	Meaning unknown	Mi'kmaq Place Names Digital Atlas, 2019; Pacificque 1934: 240
Indian Island	<i>Maliko'mijk</i>	diversified by coves	Mi'kmaq Place Names Digital Atlas, 2019
Entrance to Pictou Harbour	<i>Pogonipgetjg</i>	unknown	Pacificque 1934 :238
Fraser's Point/Abercrombie Point	<i>Oaletjg gisna Oalitjg</i>	little snowballs	Pacificque 1934: 239
Moodie Point Encampment	<i>Esasok or Oaletjh</i>	the western encampment	Sanders 2018: 18; Hoffman 1955: 130
Moodie Cove Shore	<i>Sitmug</i>	the shore down by the beach	Bennett 2013: 81; Sanders 2018:18

4.1.6 Desktop Results – Historical Context – Non-Indigenous

Interpreting early European contact with the Indigenous people in eastern Canada is restricted by the lack of accurate, unbiased and detailed historic records from this influential period (Quinn 1981: 1-9). Whether or not John Cabot set foot on Cape Breton in 1497, the shores of eastern Canada were well known to large numbers of European fisherman and whalers who made annual voyages across the Atlantic Ocean by the early 1500s (Johnston 2004: 24-25; Quinn 1981: 2). An account from 1578 indicates that off the coast of Newfoundland there were generally 100 Spanish vessels taking cod, another 20-30 Spanish vessels hunting whales, 50 Portuguese vessels, 150 sail of French and Bretons and 50 English (Brown 1869: 34; Johnston 2004: 25). Certainly, vessels traversed the Northumberland Strait, including Basque fisherman, who established seasonal cod and whaling camps in Cape Breton in the fifteenth and sixteenth centuries. Heavy competition, storms and imprecise navigation would lead some vessels to explore and exploit other areas. Without a doubt, the seamen would have come ashore occasionally for equipment repairs, to obtain fresh water, to hunt game, or to trade with the Mi'kmaq (Johnston 2004: 25; Quinn 1981; Whitehead 1991: 17-18).

In 1534, the Mi'kmaq of the Gaspé peninsula, waving furs for trade, met Jacques Cartier, indicating they were already familiar with Europeans who wanted furs and were willing to exchange manufactured goods to obtain them (Johnston 2004: 27; Quinn 1981: 18). In the early 1500s, trade between European fishermen and Indigenous people in Atlantic Canada existed as a secondary enterprise, conducted on the beach or while at anchor, but, by the 1540s, these exchanges were being pursued independently as commercial ventures (Johnston 2004: 28; Turgeon 1990: 84). Some of these interactions between Europeans and Indigenous people resulted in mutually beneficial exchanges, while others failed miserably through misunderstanding and mistrust, quickly escalating to violence (Whitehead 1991: 17-18).

Basque and Breton fishermen, who established seasonal cod and whaling camps in Cape Breton, Newfoundland, and up the St. Lawrence River in the fifteenth and sixteenth centuries, were likely the first Europeans to land on the shores of Pictou Harbour (Cullen et al. 1984: 5, 19). Evidence of early interaction and trade with local Mi'kmaq has been found at the mouth of Pictou Harbour (*BkCp-01*), where Mi'kmaq graves contained an assortment of European trade goods common in eastern North America during the late sixteenth century (Whitehead 1993: 70).

Little information exists concerning early French settlement in Pictou Harbour. Most of what we know comes from the vestiges of earlier habitations that early English settlers encountered after their arrival to the area. Evidence of French settlements were reportedly found at Cariboo Island, Little Harbour, French River, and at Big Island in Merigomish (Patterson 1877: 38-40; Cullen 1984: 6). French settlements have been identified within Pictou Harbour as well. Locals report a French burial ground at Burying Ground Point, on the north side of the harbor mouth, at what is now known as Seaview Cemetery (Patterson 1887: 39). Acadian homesteads were also purportedly located at what is now the present-day Pictou town site (Clarke 1968: 229). Further traces of French settlement along the harbor shores were also reported by locals, and are described in Patterson's nineteenth century *A History of Pictou County*:

“A log shanty stood at the mouth of the Middle River, and another on the East River. Some pine had been cut down at the Town Gut and along the stream upward, and the spot where Barrie's (late Dickson's) mill now stands, selected as the site of a mill. The remains of a cellar, which had been well constructed with logs was, for a length of time, to be seen about half way between the Town Gut Bridge and Brown's Point” (Patterson 1877: 39).

These permanent, year-round settlements, located along the coast, were likely engaged primarily in fishing, with small cleared pastures for cattle. Old French dykes could still be found along the shore as late as the 1980s, evidence that Acadians in the area were also involved in agricultural activities (Cullen 1984: 6). A small lumber industry may also have provided an income. Cullen (1984) suggests that the large oaks in the area were harvested for shipment to Louisbourg, where they were used for construction of the town and in shipbuilding (6-7).

Place names like French River and the French Channel near Merigomish reference the people of French descent who once lived there. Oral history, recorded in 2017, also suggests that an Acadian settlement may have existed at the head of Boat Harbour (20). This marshy area, where memory cites as the location of an old dyke, is known to older residents as “Butt Toe”, a possible corruption of the French word “aboiteau” (Sanders 2018:20).

The French occupation of Pictou Harbour ended with the expulsion of the Acadians in 1755 by the British military. Acadians who remained in the area migrated east to form the communities of Tracadie and Havre Boucher and avoid further persecution by the British. The land was left vacant of European settlement during the Seven Years War (1756-1763), however with the cessation of the conflict, interest in the colonization of Nova Scotia was renewed. In 1765 a large land grant was awarded to a Mr. Alexander McNutt of Northern Ireland, including approximately 100,000 acres encompassing the whole eastern half, of the county (Patterson 1887: 49). This was divided into 5 lots, approximately 20,000 acres each. Land on the south shore of the harbour was award to a Major John Fisher, from which derives the name “Fishers Grant” (PANS 1967: 524-25). Fisher's land grant was extensive, stretching from the east side of Pictou Harbour along the shore to Merigomish Harbour, and included islands within the harbour. In spite of this, settlers were hard to find, and it does not appear Fisher himself ever established a home there. (Patterson 1887: 50).

Though many grants were issued, few found success in attracting settlers. The exception was the Philadelphia Grant, which included the west side of the harbour and the location of the current township of Pictou. Selling land in the area at ‘five pounds sterling for every hundred acres payable two years after their arrival’, the Philadelphia Company was able to attract six families by 1767 who settled along the west river, and an additional seven families by 1769 (Bumsted 2005: 167; PANS 1967: 50). In 1773, approximately 190 new settlers arrived in Pictou Harbour from Lochbroom, Scotland aboard the famous ship ‘Hector’ (Patterson 1887: 82). Marking the beginning of the flood of Scottish immigrants to the province, members of this group would go on to find the town of Pictou.

At the end of the American Revolutionary War (1775-1783), disbanded soldiers from the 82nd Regiment were granted tracts of land from the escheated Fishers Grant for resettlement in 1783. The land was divided amongst approximately 150 officers, NCO’s and privates, with major grants handed to Colonel Robertson who received all 1500 acres of Big Island and Captain Fraser who received 700 acres at Fraser’s Point. Whatever expectations the soldiers had were unmet when they arrived at the uncleared forests marked by only a few scattered settlements. A townsite by the name of “Walmsley” was laid out at the location of Fishers Grant but was never realized. Though many of the grantees left, others stayed and joined settlers who had previously established homesteads in the area.

Settlements at Pictou and Pictou Landing continued to grow throughout the nineteenth century, spurred on by a profitable fishery, coal mining, and shipbuilding industry. A cross-harbour ferry route was established between Fisher’s Grant (now Pictou Landing) and the town of Pictou, located at Christie’s Point. Demand for the ferry service warranted the opening of a second ferry route in 1848, located at the present-day location of the wharves and docks at Pictou Landing. This community became the hub of activity, and was the main service area in the harbor, a position solidified with the opening of a branch of the Nova Scotia Railway connecting Pictou Landing and New Glasgow. Opened in October 1866, the railway carried freight and passengers to the newly established ferry wharf at what became known as Pictou Landing. By the turn of the nineteenth century, new roads were established by settlers to connect the scattered communities along the coast. In 1798, a committee began work laying out Fisher’s Grant Road (now Pictou Landing Road or Route 348), between Little Harbour and Fisher’s Grant (Cullen et al. 1984: 14).

4.1.7 Desktop Results – Archaeological Potential Modelling

The results of the APM developed by Boreas Heritage suggests areas near the shoreline have elevated archaeological potential for encountering archaeological resources due to the proximity of East River (*Figure 3*).

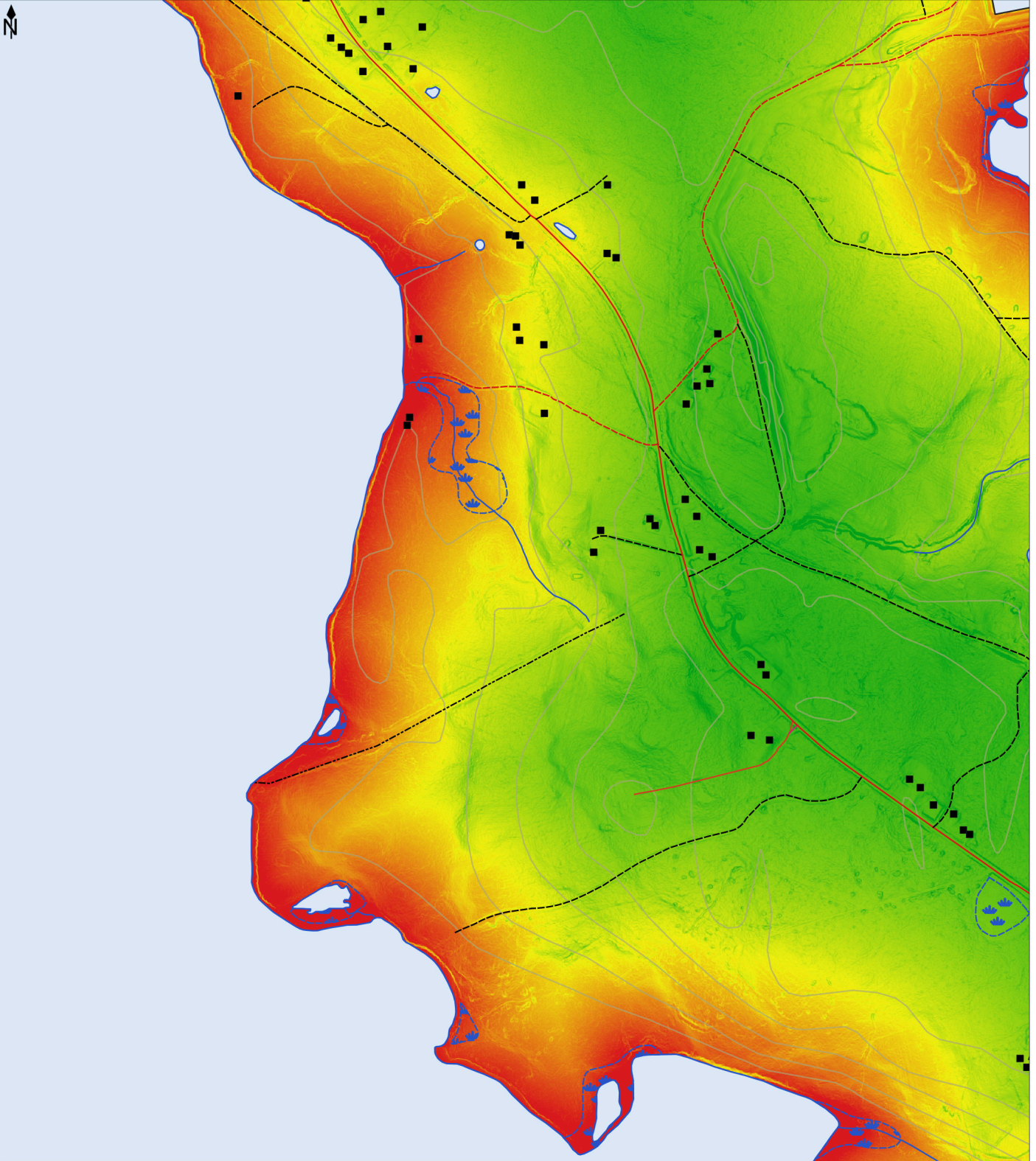
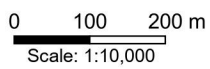


Figure 3: Archaeological Potential Model

Indian Cross Point
 GPR Investigations and Reconnaissance
 Pictou County



Notes:
 NAD 83 UTM Zone 20 T
 Base Map: SNSMR



BOREAS
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4.2 Field Component

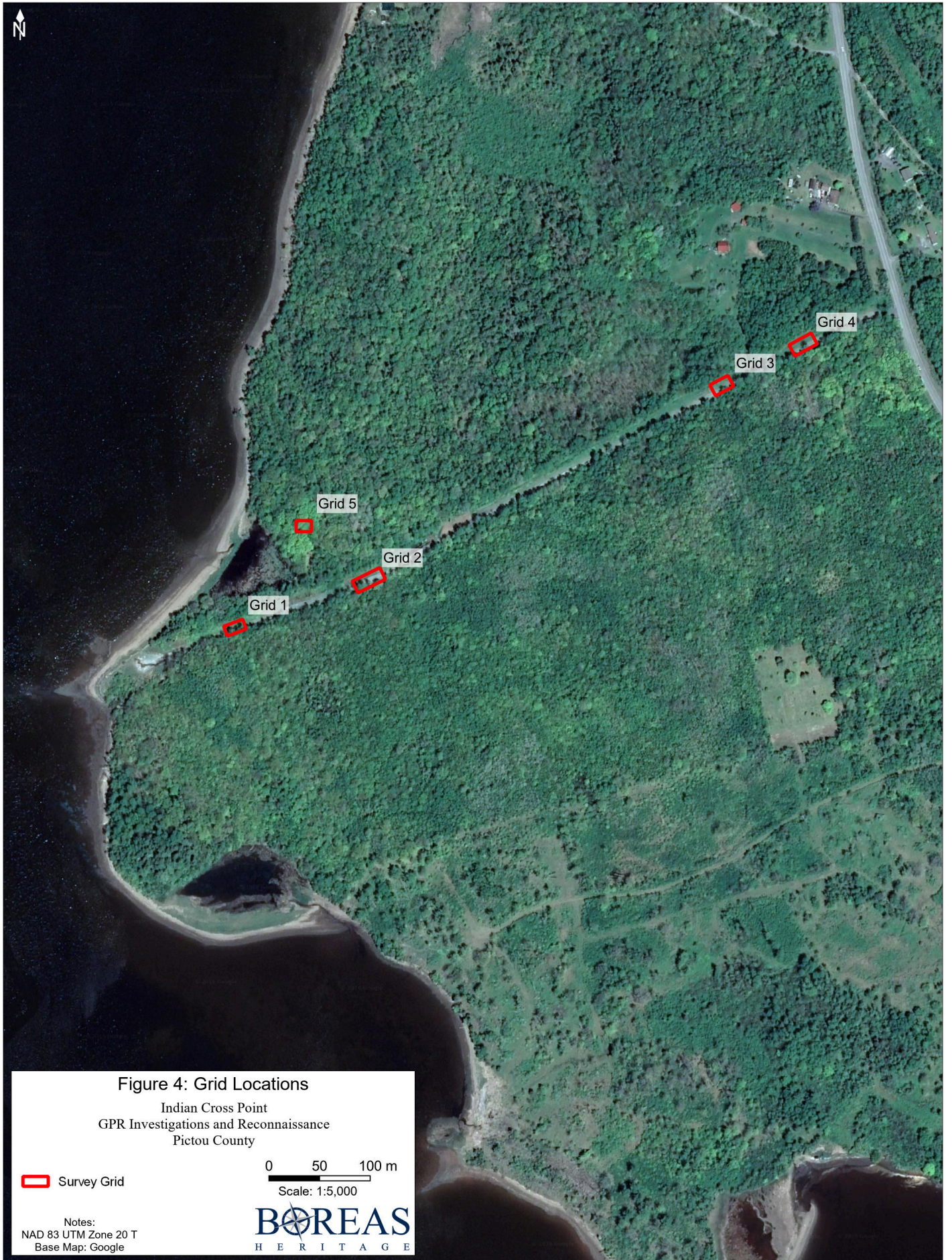
The objectives of the Assessment are to provide as much information as possible as to whether human remains are likely to be present in the pipeline ROW, extending over 3 kilometres in length, and to survey additional areas that may also be associated with the Mi'kmaw Burial Ground. The field component of the Assessment consisted of two phases. *Phase 1* consisted of GPR survey of four selected areas within the existing ROW alignment, which was divided into four sections (**Figure 4**). The selection of grids was based on existing vegetation and the suitability of the area for GPR survey. The objective of *Phase 1* is to identify evidence of subsurface features along the ROW, specifically evidence of unmarked burials. *Phase 2* consisted of Archaeological Reconnaissance of the adjacent properties (**Figure 5**) to determine the potential for locating evidence of the Mi'kmaw Burial Ground. Selected areas considered to exhibit high potential for locating the presence of burials were then subjected to GPR survey.

4.2.1 Phase 1 Results

The **Grid 1** GPR survey was carried out on July 11, 2019. Situated at the far western end of the ROW study area, Grid 1 measures 20 metres (east-west) by 10.5 metres (north-south). It is bounded on the north and south by forest and is bisected by the existing access road (**Plate 4**). The northern portion of the grid area was covered by significant brush that was manually cleared prior to initiating the survey. Visual inspection revealed some surface disturbance in the northern portion of the grid area, with stony ground, possibly associated with the construction and/or maintenance of the pipeline. Otherwise, there were no major obstacles within the survey grid area. Data was collected at 25 cm intervals in two directions (north-south and east-west). In total, 124 lines of data were collected within Grid 1.



Plate 4: View northeast of Grid 1.



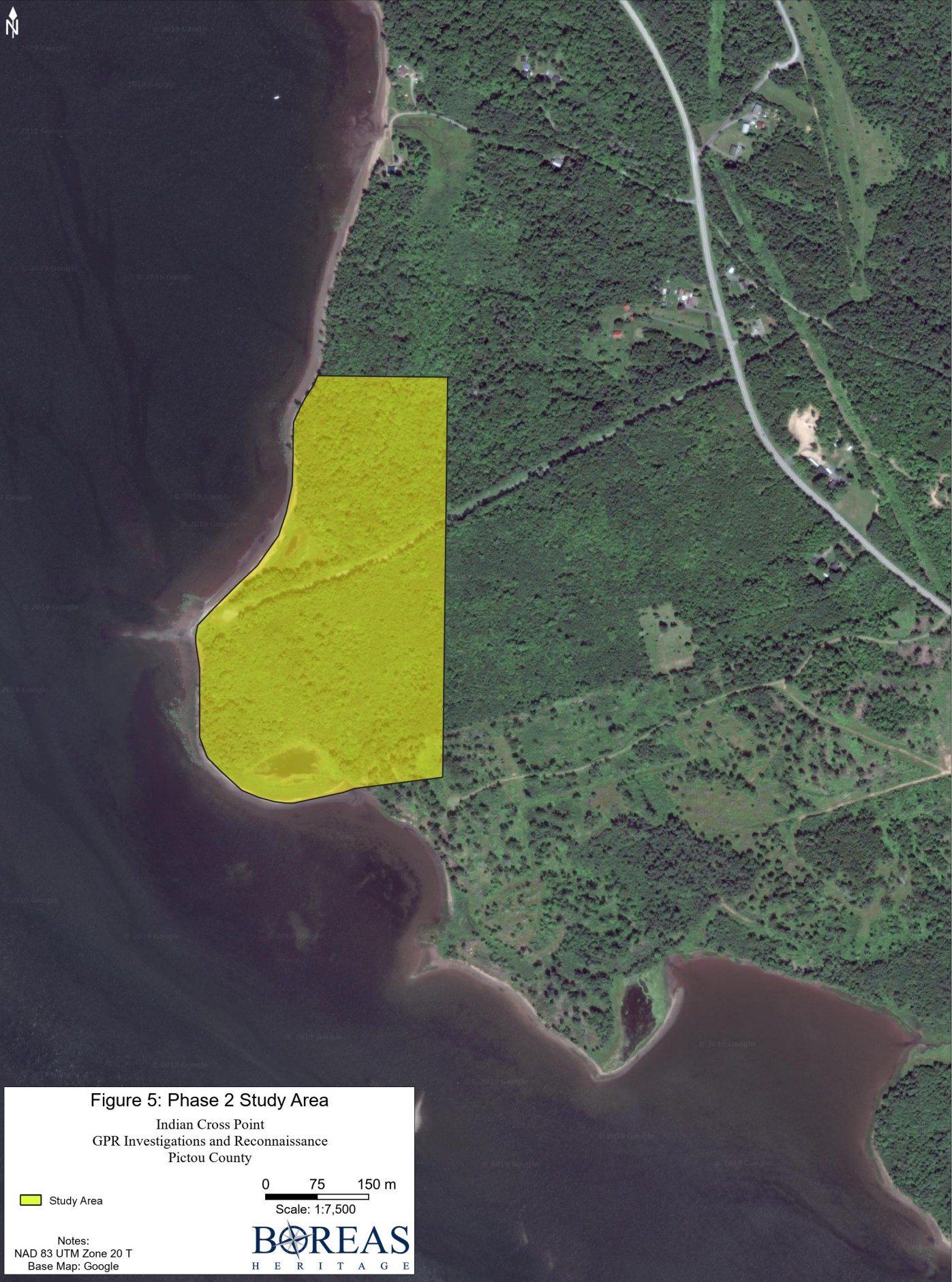


Figure 5: Phase 2 Study Area
Indian Cross Point
GPR Investigations and Reconnaissance
Pictou County

Study Area

0 75 150 m

Scale: 1:7,500

Notes:
NAD 83 UTM Zone 20 T
Base Map: Google



Analysis of the data indicates surface disturbance in the assumed location of the existing pipeline, approximately 5 centimetres below surface (**Plate 5**). This is likely related to the initial installation and/or maintenance of the pipeline and is visually evident on the surface. A strong response from the GPR was measured at approximately 15-20 centimetres below surface, at the southern edge of the survey grid (**Plate 6**). This is likely associated with saturated soils and standing water collected at the edge of the existing access road. The remaining portions of the survey grid were clear of any major anomalies or GPR response. No evidence of burials or the existing pipeline was detected in this area.

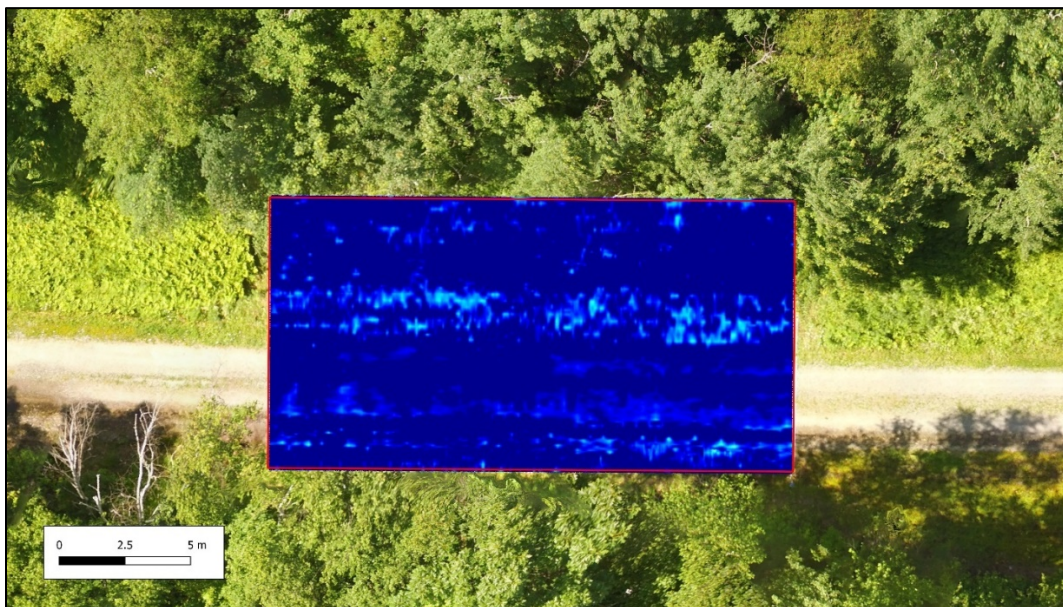


Plate 5: Surface disturbance at 0-10cm below surface.

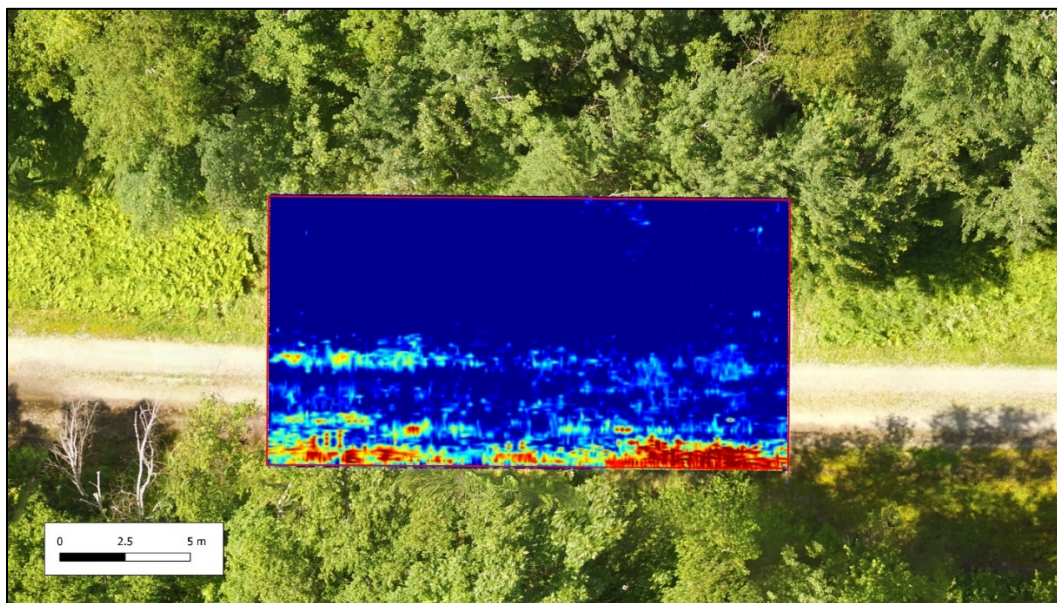


Plate 6: Strong response at south end of survey grid at 15-20 cm below surface.

The **Grid 2** GPR survey was carried out on July 9, 2019. Situated in the western portion the ROW study area, approximately 120 metres northeast of Grid 1, Grid 2 measures 30 metres (east-west) by 13 metres (north-south). It is bounded on the north and south by forest and is bisected by the existing access road (**Plate 7**). The northern portion of the grid area was covered by significant brush that was manually cleared prior to initiating the survey. Visual inspection of the grid area revealed some surface disturbance in the northern portion of the grid area from vehicles driving or parking in the area. Otherwise, there were no major obstacles within the Grid 2 survey area. A manhole/access port for access to the pipeline was located just west of the northwest corner of the grid. Data was collected at 25 cm intervals in two directions (north-south and east-west). In total, 174 intervals were collected within Grid 2.



Plate 7: View east of Grid 2.

Analysis of the data indicates some surface disturbance in the central portion of the grid area at approximately 25-50 centimetres below surface, likely related to road construction and/or pipeline installation and maintenance (**Plate 8**). A few small, isolated responses can be observed at approximately 55-60 centimetres below surface but are not believed to be of cultural significance (**Plate 9**). The remaining portions of the survey grid were clear of any major anomalies or GPR response. No evidence of burials or the existing pipeline was detected in this area.

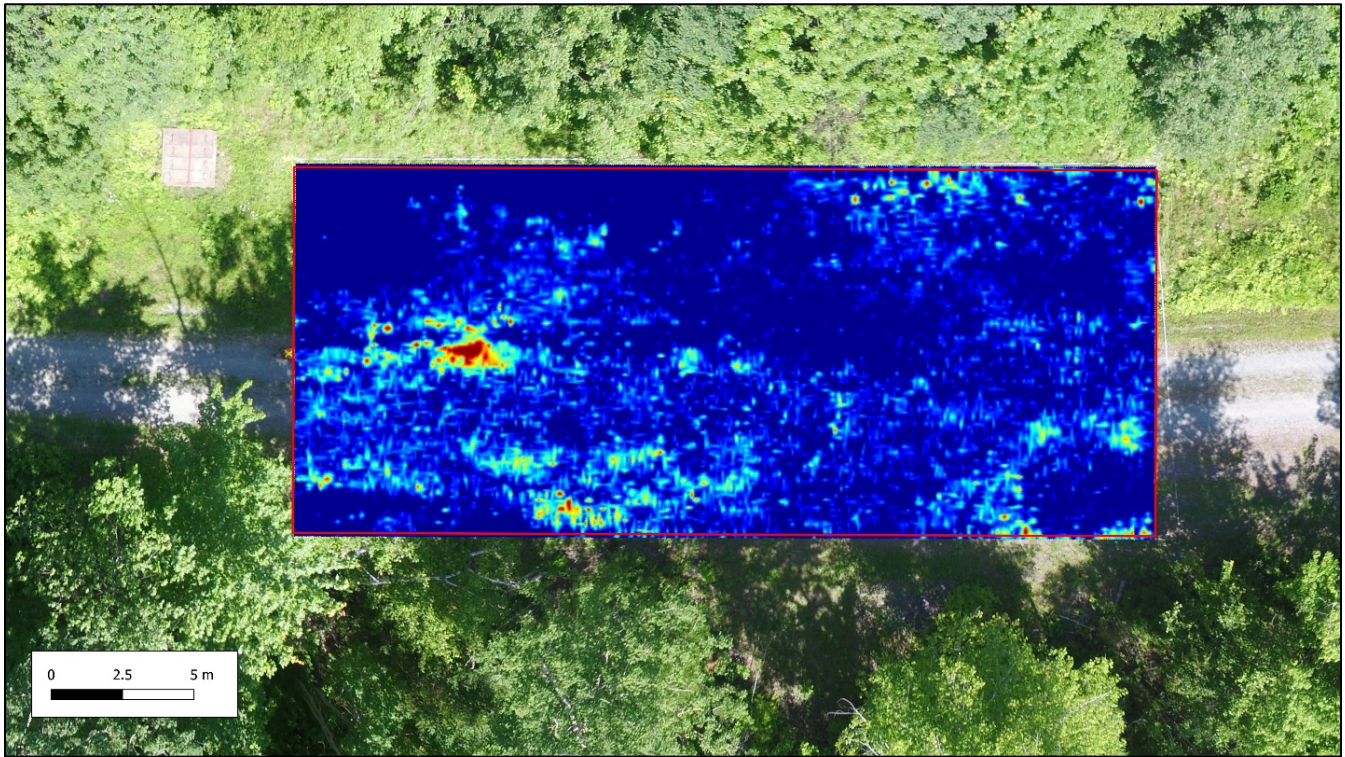


Plate 8: Surface disturbance related to road construction at 25-30 cm below surface.

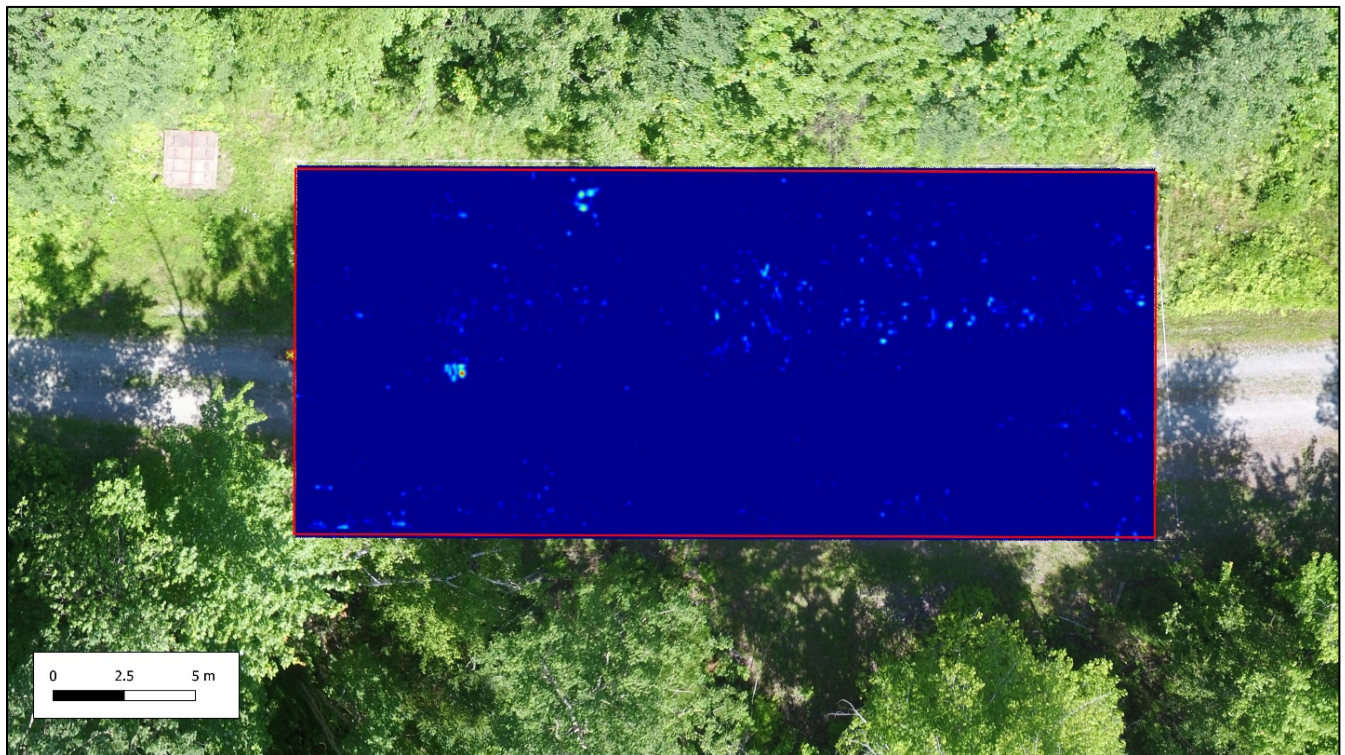


Plate 9: Small, isolated responses at 55-60 cm below surface.

The **Grid 3** GPR survey was carried out on July 10, 2019. Situated in the eastern portion the study area, approximately 375 metres east of Grid 2, Grid 3 measures 20 metres (east-west) by 12 metres (north-south). It is bounded on the north and south by forest and is bisected by the existing access road (**Plate 10**). The northern portion of the grid area was covered by significant brush that was manually cleared prior to initiating the survey. An existing cleared trail runs along the northern edge of the grid and is used by the local landowner for access to the coast. Although some small trees and saplings represented obstacles within the grid, they did not inhibit the survey. A manhole/access port for access to the pipeline was located just west of the grid. Data was collected at 25 cm intervals in two directions (north-south and east-west). In total, 130 intervals were collected within Grid 3.



Plate 10: View northeast of Grid 3.

Analysis of the data indicates some surface disturbance in the southern portion of the grid area at approximately 5-35 centimetres below surface, related to the existing access road (**Plate 11**). At approximately 1.0-1.3 metres below surface, the top of the existing pipeline can be seen running east-west through the survey grid, on the north side of the access road (**Plate 12**). This linear response lines up precisely with the manhole/access port for the pipeline. Analysis of the profile data revealed the typical hyperbolic and linear response associated with a buried utility (**Plates 13 & 14**). The remaining portions of the survey grid were clear of any major anomalies or GPR response. No evidence of burials was detected in this area.

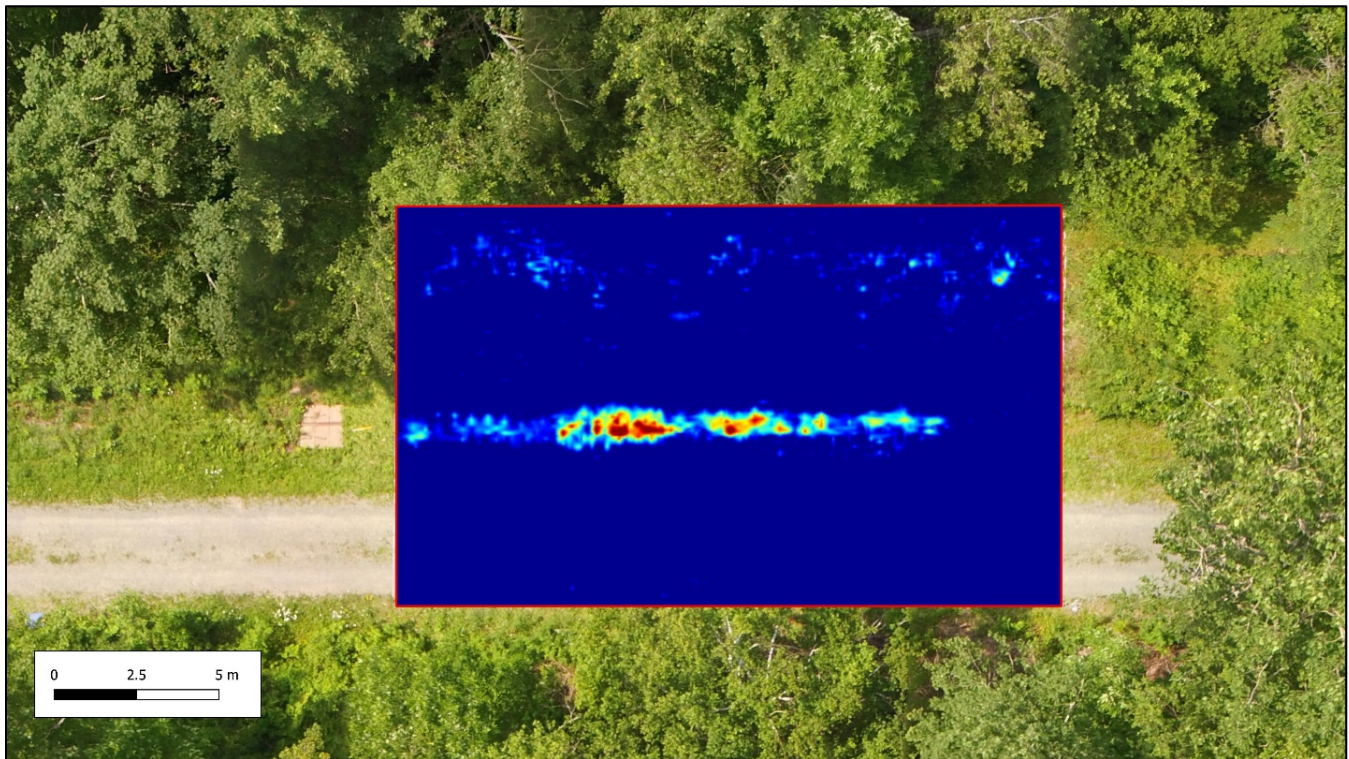


Plate 11: Linear response at 1.4 m in depth showing existing pipeline.



Plate 12: Pipeline response isolated.

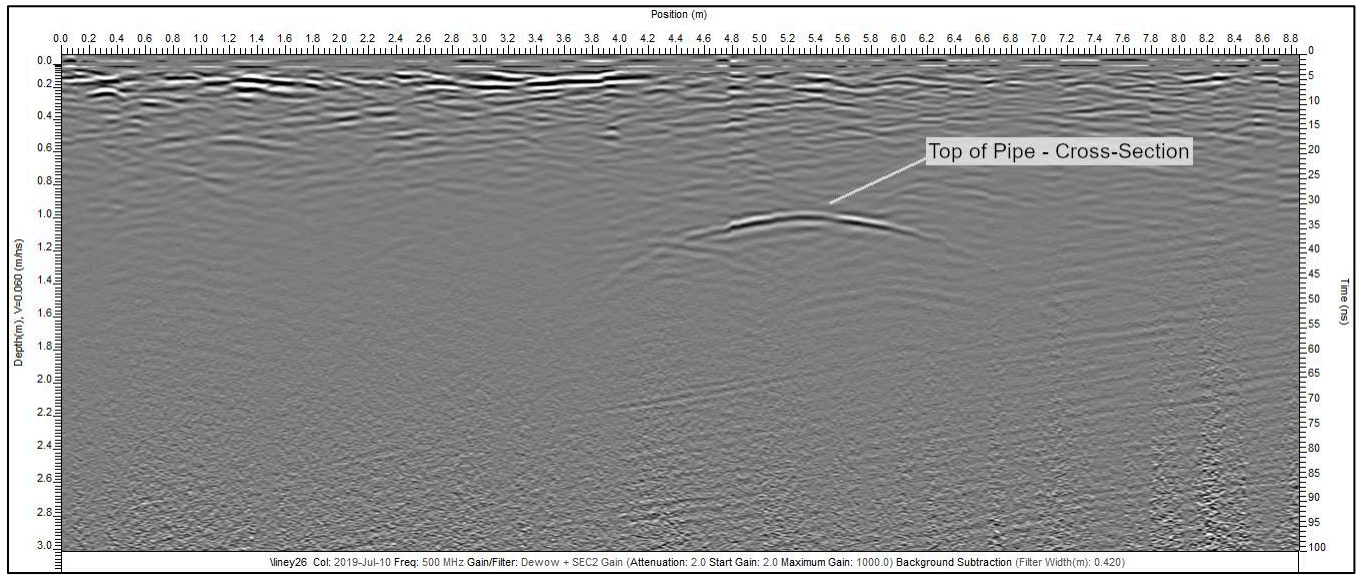


Plate 13: Profile view of Grid 3 showing cross-section of existing pipe.

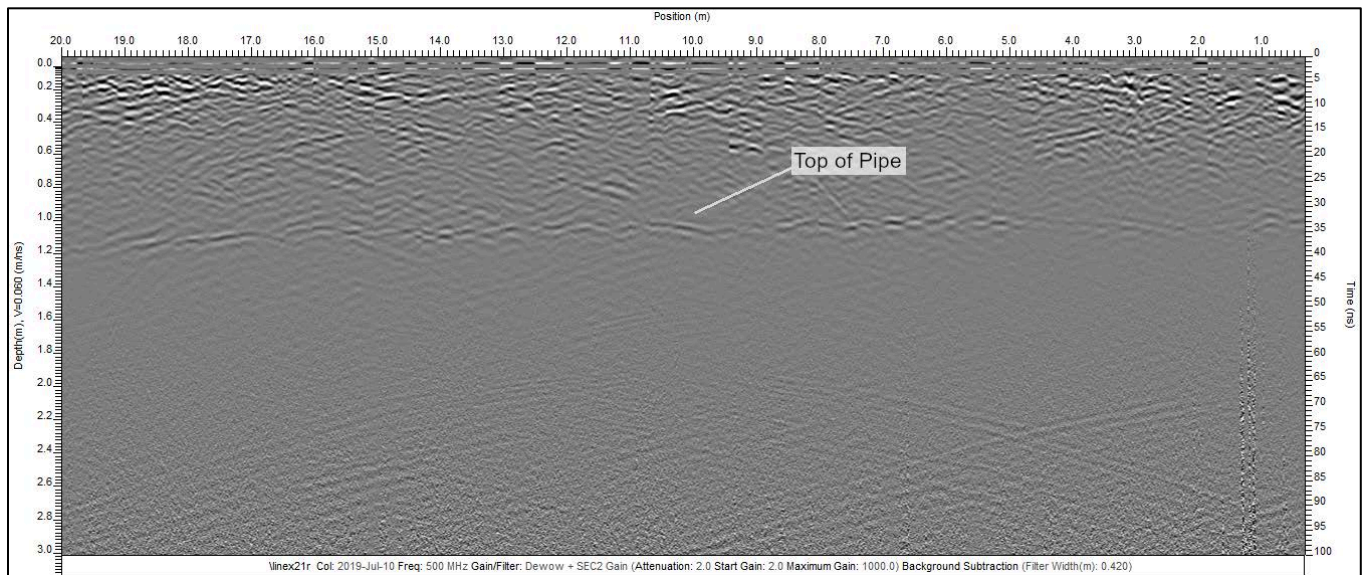


Plate 14: Profile view of Grid 3 showing linear response from the top of the existing pipe.

The **Grid 4** GPR survey was carried out on July 18, 2019. Situated at the far eastern end the study area, approximately 75 metres east of Grid 3, Grid 4 measures 25 metres (east-west) by 12.5 metres (north-south). It is bounded on the north and south by forest and is bisected by the existing access road (*Plate 15*). The northern portion of the Grid 4 survey area was covered by significant brush that was manually cleared prior to initiating the survey. There were no major obstacles within the survey grid area. Data was collected at 25 cm intervals in two directions (north-south and east-west). In total, 152 intervals were collected within Grid 4.



Plate 15: View northeast of Grid 4.

Analysis of the data indicates some surface disturbance in the southern portion of the grid area at approximately 10-30 centimetres below surface, related to the existing access road (*Plate 16*). At approximately 1.2-1.4 metres below surface, the top of the existing pipeline can faintly be seen running east-west through the survey grid, on the north side of access road (*Plate 17*). Analysis of the profile data revealed the typical hyperbolic and linear response associated with a buried utility, however, not as strong as the response in Grid 3 (*Plates 18 & 19*). A few small isolated responses can be observed at approximately 40-60 centimetres below surface but are not believed to be of cultural significance. The remaining portions of the survey grid were clear of any major anomalies or GPR response. No evidence of burials was detected in this area.

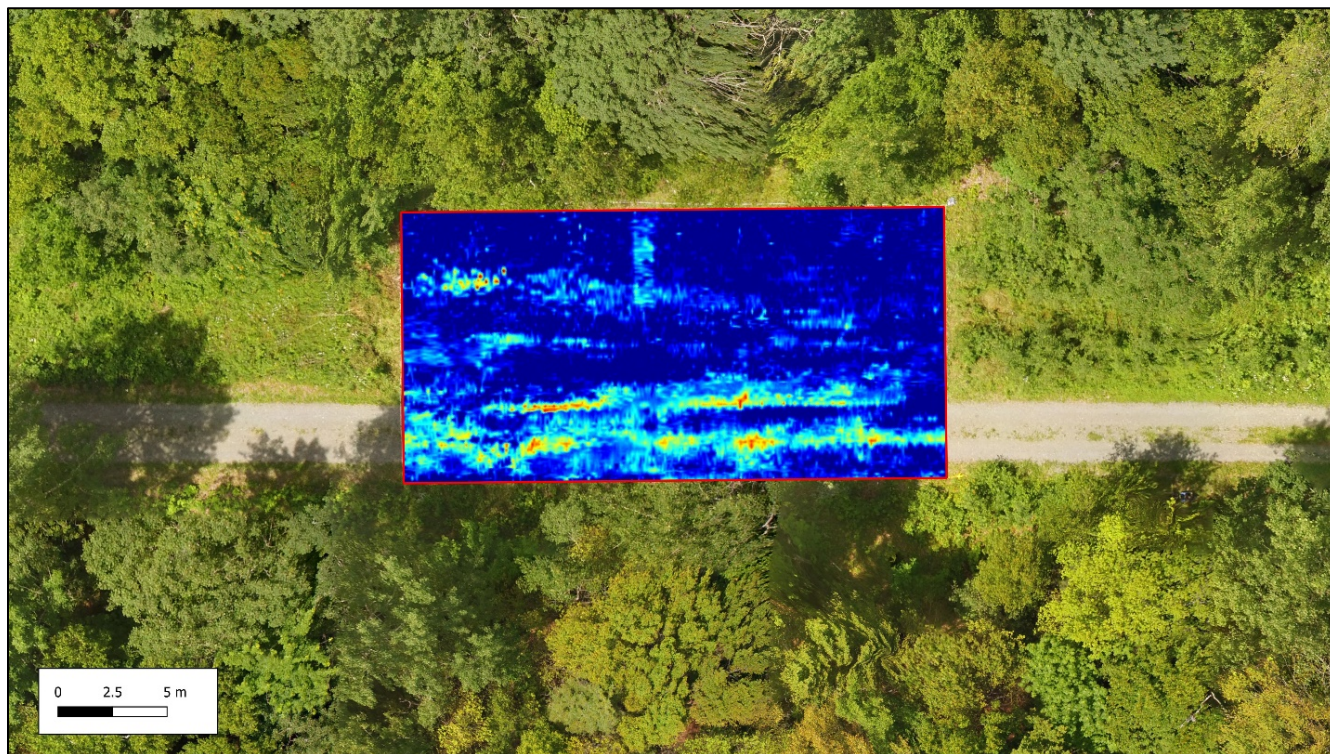


Plate 16: *Surface disturbance related to road construction at 10-30 cm below surface.*

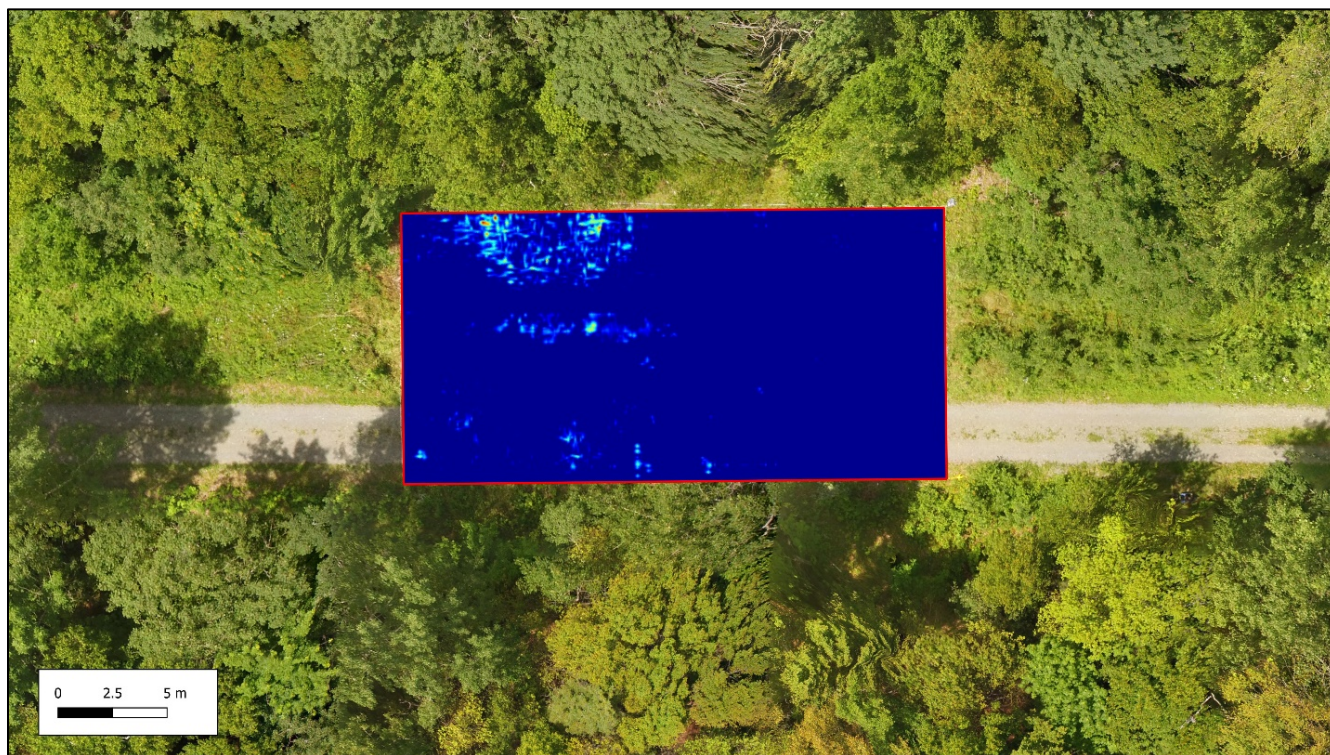


Plate 17: *Faint linear response from existing pipe at 1.2-1.4 m below surface.*

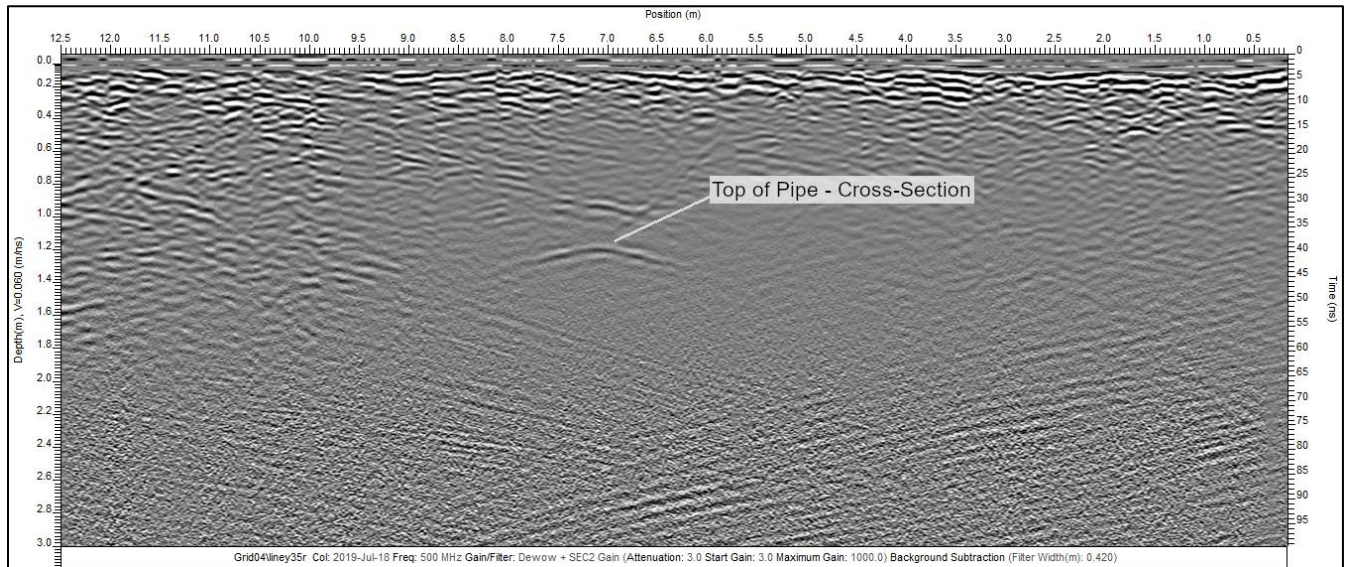


Plate 18: Profile view of Grid 4 showing cross-section of existing pipe.

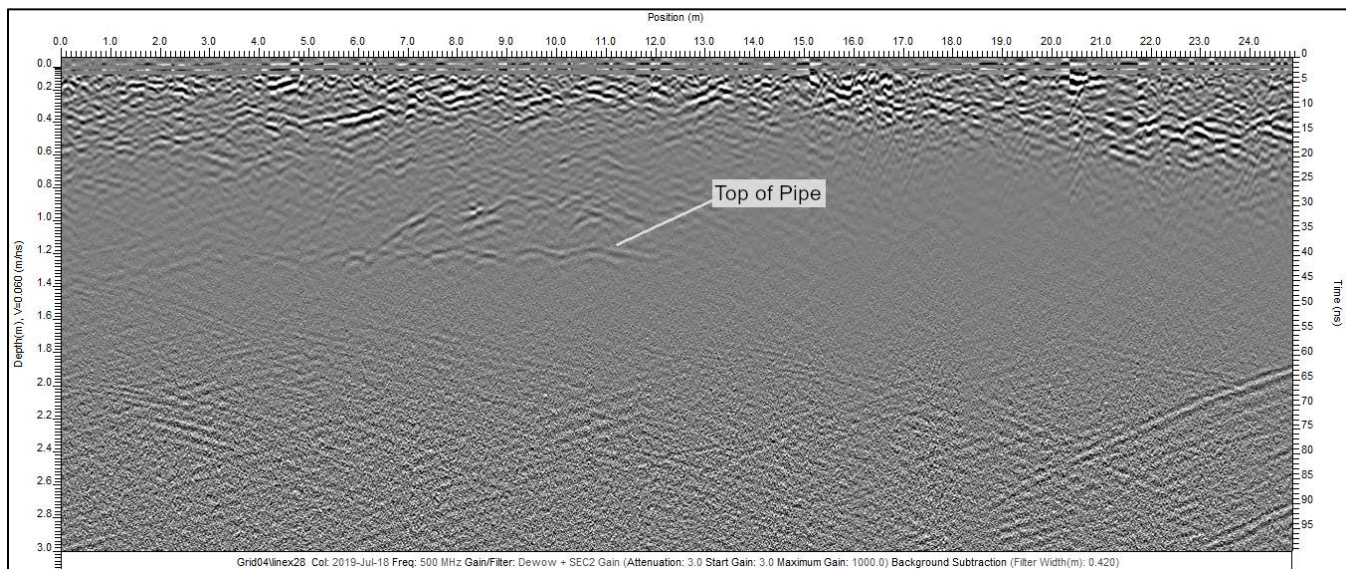


Plate 19: Profile view of Grid 4 showing linear response from the top of the existing pipe.

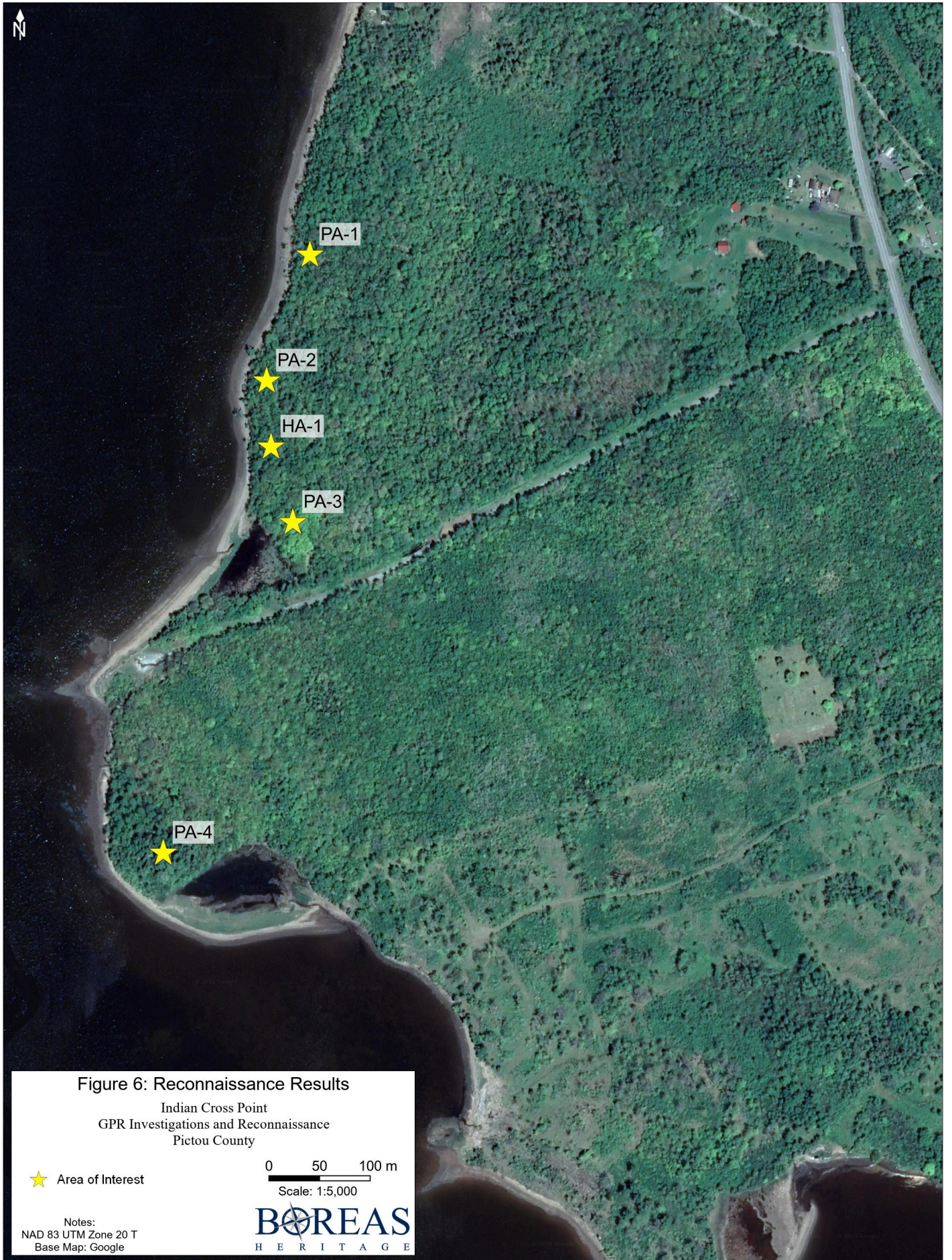
4.2.2 Phase 2 Results

Field reconnaissance of the defined study area (**Figure 5**) was conducted on July 17, 2019 and consisted of visual inspection of the area in order to identify potential locations that may be associated with the burial ground and that were suitable to conduct GPR. The field inspection began at the end of the existing access road and proceeded north along the coast to the northwestern corner of the study area and then proceeded south through the wooded portion of the study area (**Plate 20; Appendix B**). All exposures and erosional faces were inspected during the course of the survey, but no artifacts were observed.



Plate 20: View south of erosional and surface exposures along coast.

Overall, the area was covered by dense forest consisting mainly of spruce, fir, birch and maple and represented generally level to undulating, well drained terrain. Areas of young regrowth, particularly young spruce were common. Such vegetation is not suitable for conducting GPR surveys due to the number of obstacles and dense brush. In total, four areas deemed potentially suitable for conducting a GPR survey (PA-1 through PA-4) were identified along with one area of historic land use (HA-1) (**Figure 6**). Each area will be discussed separately below.



Potential Area 1 (PA-1) is the furthest north of the four identified areas and is located along the coast, approximately 330 metres north of the existing access road (*Plate 21*). Consisting of mainly level to gently sloping terrain with generally open vegetation, this area is considered suitable to conduct a small GPR survey with some brush/tree clearing and is within the vicinity of the presumed location of the burying ground.



Plate 21: View north of level terrain at Potential Area 1.

Potential Area 2 (PA-2) is located along the coast, approximately 230 metres north of the existing access road (*Plate 22*). Consisting of mainly level, elevated terrain with fairly open vegetation, this area would be suitable to conduct a small GPR survey with some brush/tree clearing and is within the vicinity of the presumed location of the burying ground.

Potential Area 3 (PA-3) is located along the coast, approximately 80 metres north of the existing access road (*Plate 23*). Consisting of mainly level terrain with fairly open vegetation, this area would be suitable to conduct a small to moderate sized GPR survey and is within the vicinity of the presumed location of the burying ground. The area appears to have been previously cleared of some underbrush and, therefore, only minimal brush/tree clearing may be necessary. This area is situated just south of the old access road/trail that previously led to the shoreline. A few rock piles were also noted in the general vicinity suggesting this area may have been maintained and/or used in the recent past.



Plate 22: *View southwest of mainly level, open terrain at Potential Area 2.*



Plate 23: *View northwest of mainly level, open terrain at Potential Area 3.*

Potential Area 4 (PA-4) is the furthest south of the four identified areas and is located along the coast, approximately 180 metres south of the existing access road (**Plate 24**). Consisting of mainly level terrain with fairly open vegetation, this area would be suitable to conduct a small to moderate sized GPR survey and is within the vicinity of the presumed location of the burying ground. The area appears to have been previously cleared of trees and possibly artificially leveled or landscaped. Some additional brush/tree clearing may be necessary.

Historic Area 1 (HA-1) is an area of historic land use observed during the course of the field reconnaissance. Situated along the coast, approximately 165 metres north of the existing access road, the area consists of mainly level to undulating terrain with fairly dense forest cover (**Plate 25**). Visual assessment revealed a number of cut logs and stumps, a scatter of refuse, and what appears to be the remains of a wooded structure that was held together with wire nails. It is not immediately clear what the purpose or use of this area had been. The area, however, would not be well suited for a GPR survey as a significant amount of brush/tree clearing would be needed. Furthermore, the scatter of refuse and wooden remains would act as significant obstacles during the survey.



Plate 24: View southeast of mainly level, open terrain at Potential Area 4.



Plate 25: *View of surface debris and wooden remains at HA-1.*

Following the field survey, Potential Area 3 was chosen as the site of an additional GPR survey (Grid 5) (**Figure 4; Plate 26**). This area was chosen because it was open and obstacle free, and because it is within the vicinity of the presumed location of the burying ground. The **Grid 5** GPR survey was carried out on September 5, 2019.

Situated along the coast, approximately 80 metres north of the existing access road, Grid 5 measures 15 metres (east-west) by 11 metres (north-south). It is located entirely within the wooded area to the north of the access road. While it appeared the area had been cleared of underbrush in the past, a number of trees within the grid acted as obstacles. Overall, the area was mainly open and the GPR survey was able to proceed without much difficulty. Data was collected in 25 centimetre intervals in two directions (north-south and east-west). In total, 106 intervals were collected within Grid 5.

Analysis of the data revealed a strong near-surface response across the entire survey area at a depth of approximately 10-30 centimetres below surface and represents reflections from tree roots (**Plate 27**). Starting at approximately 70 centimetres below surface a number of scattered anomalies can be observed in, but not limited to, the northeastern portion of the survey grid (**Plates 28, 29, 30 & 31**). While the depth slices portray these as somewhat scattered and disorganized, analysis of the profile data suggests many of these responses are fairly consistent in size and depth. Without excavation and ground truthing it is not possible to determine the exact nature of these anomalies. The regular nature of the responses, however, suggests the possibility that burials are present in this area.



Plate 26: View east of Grid 5.

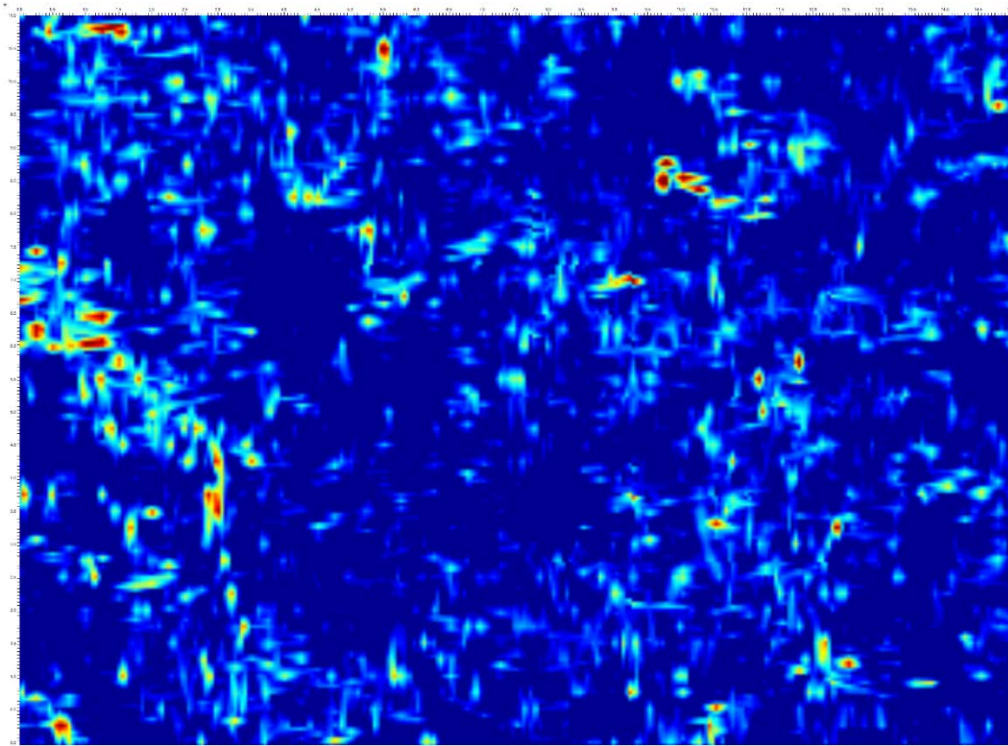


Plate 27: Scattered anomalies from tree roots at Grid 5 at 10-30 cm below surface.

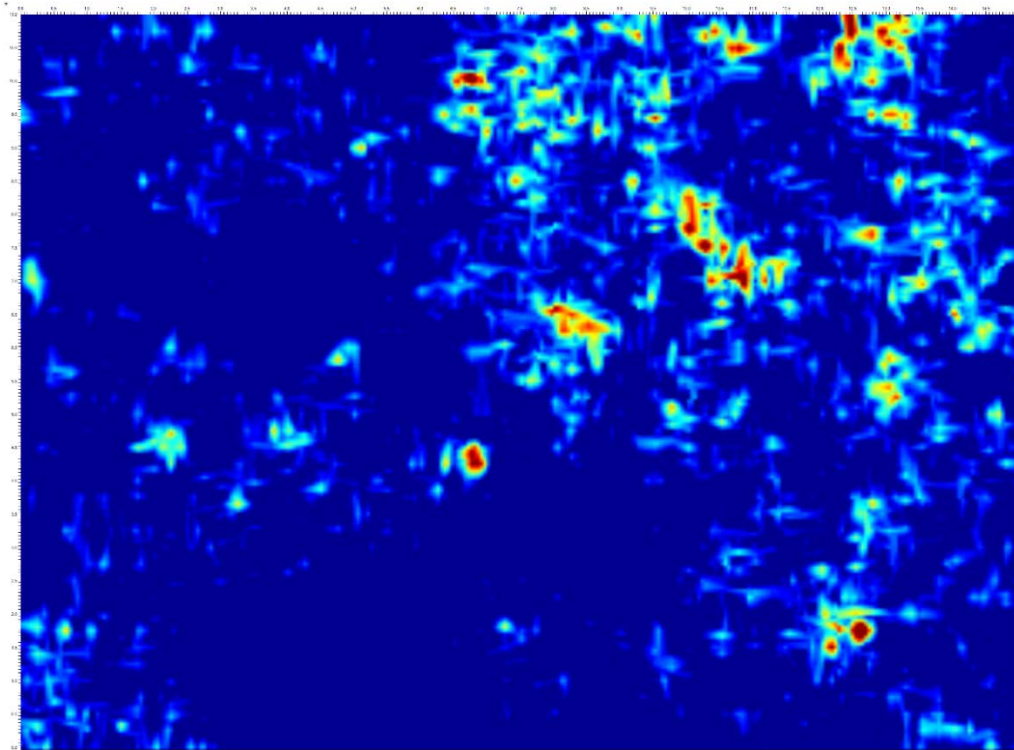


Plate 28: Scattered anomalies in the northeast corner of Grid 5 at 90-95 cm below surface.

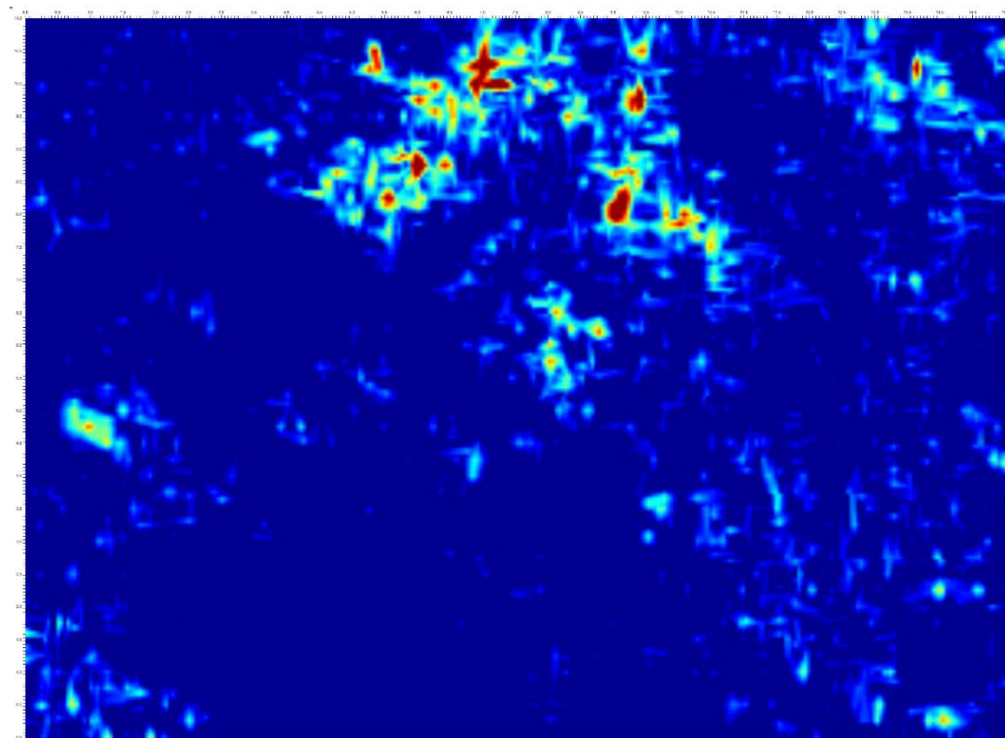


Plate 29: Scattered anomalies in the northeast corner of Grid 5 at 1.0 to 1.05 m below surface.

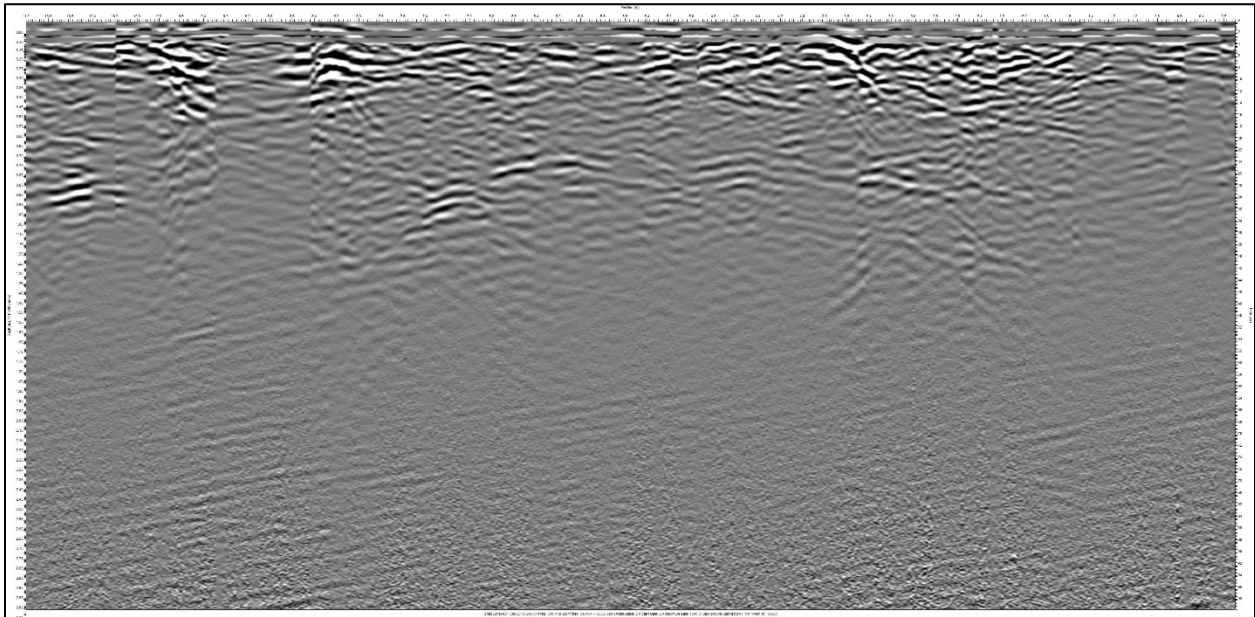


Plate 30: Profile view of Grid 5 showing series of anomalies at approximately 70 cm below surface.

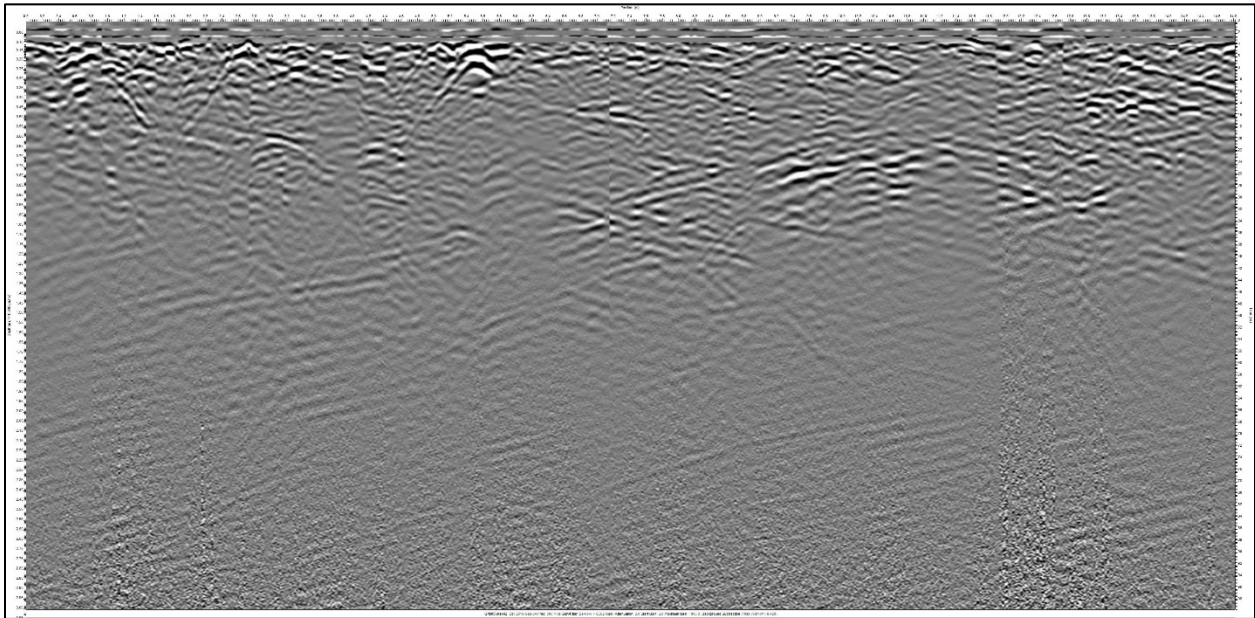


Plate 31: Profile view of Grid 5 showing series of anomalies at approximately 70 cm below surface.

4.2.3 Field Results – Archaeological Potential

The objectives of the 2019 Indian Cross Point Archaeological Reconnaissance and Ground Penetrating Radar Survey are to provide as much information as possible as to whether human remains are likely to be present in the pipeline ROW and to survey additional areas that may also be associated with the Mi'kmaw Burial Ground.

The field component of the Assessment consisted of two phases. *Phase 1* consisted of GPR survey of four selected areas within the existing ROW alignment, which was divided into four sections (**Figure 4**). The selection of grids was based on existing vegetation and the suitability of the area for GPR survey. GPR survey of the selected four grids revealed evidence of disturbance associated with pipeline installation and/or maintenance in all areas and evidence of the existing pipeline in two areas (Grid 3 & Grid 4). No evidence of burials was detected in any of the grid areas.

The background study revealed the burying ground was likely located atop the bank along the shoreline of the East River, including portions of the Palmer property. Therefore, the area of highest potential for relocating the burying ground is the area closest to the shoreline. The burials may have extended south into the area where the pipeline ROW is now located. As a result, the western end of the pipeline is considered to exhibit high potential for encountering unmarked burials (**Figure 7**).

Phase 2 consisted of Archaeological Reconnaissance of the adjacent properties (**Figure 5**) to determine the potential for locating evidence of the Mi'kmaw Burial Ground and to select areas suitable for GPR survey without significant vegetation removal. Four suitable areas were identified (PA-1 – PA-4) and one area of historic land use was observed (HA-1) (**Figure 6**). PA-4 was subsequently subjected to GPR survey, which revealed a number of subsurface anomalies. Analysis of the profile data suggests many of these responses are fairly consistent in size and depth. Without excavation and ground truthing it is not possible to determine the exact nature of these anomalies. The regular nature of the responses, however, suggests the possibility that burials are present in this area.



Figure 7: Monitoring Area

Indian Cross Point
GPR Investigations and Reconnaissance
Pictou County

Monitoring Area

0 30 60 m

Scale: 1:3,000

Notes:
NAD 83 UTM Zone 20 T
Base Map: Google

BOREAS
HERITAGE

5.0 CONCLUSIONS AND RECOMMENDATIONS

The 2019 Indian Cross Point Archaeological Reconnaissance and Ground Penetrating Radar Survey involved desktop components (background screening) and field components (archaeological reconnaissance and GPR Survey).

Phase 1 consisted of GPR survey of four selected areas within the existing ROW alignment, which revealed evidence of disturbance associated with pipeline installation and/or maintenance in all areas and evidence of the existing pipeline in two areas (Grid 3 & Grid 4). No evidence of burials was detected within any of the grid areas. The background study revealed the burying ground is likely located atop the bank along the shoreline of the East River, including portions of the Palmer property. The burials may have extended south into the area where the pipeline ROW is now located. As a result, the western end of the pipeline is considered to exhibit high potential for encountering unmarked burials.

Phase 2 consisted of Archaeological Reconnaissance of the adjacent properties to determine the potential for locating evidence of the Mi'kmaw Burial Ground and to select areas suitable for GPR survey without significant vegetation removal. Four suitable areas were identified (PA-1 – PA-4) and one area of historic land use was observed (HA-1). PA-4 was subsequently subjected to GPR survey, which revealed a number of subsurface anomalies. Analysis of the profile data suggests many of these responses are fairly consistent in size and depth. Without excavation and ground truthing it is not possible to determine the exact nature of these anomalies. The regular nature of the responses, however, suggests the possibility that burials are present in this area.

Based on the results of the Survey described in this report, Boreas Heritage offers the following conclusions and archaeological resource management recommendations:

1. If the existing pipeline at the western end of the ROW, as shown on *Figure 7* of this report, is to be removed, an archaeological monitor should be present to prevent accidental impacts to potential unmarked burials;
2. All remaining portions of the ROW are considered to exhibit low potential for encountering unmarked burials;
3. Based on the background study, the area of highest potential for relocating the burying ground is the area closest to the shoreline on the Palmer property and south into the area where the pipeline ROW terminates. As there are no plans to develop or modify this portion of the Palmer property, there are no immediate concerns that unmarked burials will be disturbed.

4. In the event archaeological resources are encountered during development activities associated with the existing pipeline, works should be temporarily halted until contact is made with, and direction(s) on how to proceed has been received from, Sean Weseloh McKeane, Coordinator of Special Places, Nova Scotia Department of Communities, Culture and Heritage, at 902-424-6475; and,
5. In the event human remains are encountered, from disturbed or undisturbed contexts, during development activities associated, all works across the development area associated with the proposed Project must immediately cease until contact is made with, and direction(s) on how to proceed have been received from Sean Weseloh McKeane, Coordinator of Special Places, Nova Scotia Department of Communities, Culture and Heritage (902-424-6475).

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APPENDIX A



Heritage Research Permit (Archaeology)

Special Places Protection Act 1989

(Original becomes Permit when approved by
Communities, Culture and Heritage)

**Office Use Only
Permit Number:**

A2019NS064

Greyed out fields will be made publically available. Please choose your project name accordingly

Surname **Garcin**

First Name **Stephen**

Project Name

Indian Cross Point Reconnaissance and GPR Investigation

Name of Organization

Boreas Heritage Consulting Inc.

Representing (if applicable)

Permit Start Date **July 8, 2019**

Permit End Date **December 31, 2019**

General Location: Indian Cross Point is located west of Boat Harbour, off Pictou Landing Road in Pictou County, Nova Scotia

Specific Location: *(cite Borden numbers and UTM designations where appropriate and as described separately in accordance with the attached Project Description. Please refer to the appropriate Archaeological Heritage Research Permit Guidelines for the appropriate Project Description format)*

Permit Category:

Please choose one

Category A – Archaeological Reconnaissance

Category B – Archaeological Research

Category C – Archaeological Resource Impact Assessment

I certify that I am familiar with the provisions of the *Special Places Protection Act* of Nova Scotia and that I have read, understand and will abide by the terms and conditions listed in the Heritage Research Permit Guidelines for the above noted category.

Signature of applicant <Original signed by>

Date **June 25, 2019**

Approved by Executive Director <Original signed by>

Date

July 2, 2019

APPENDIX B

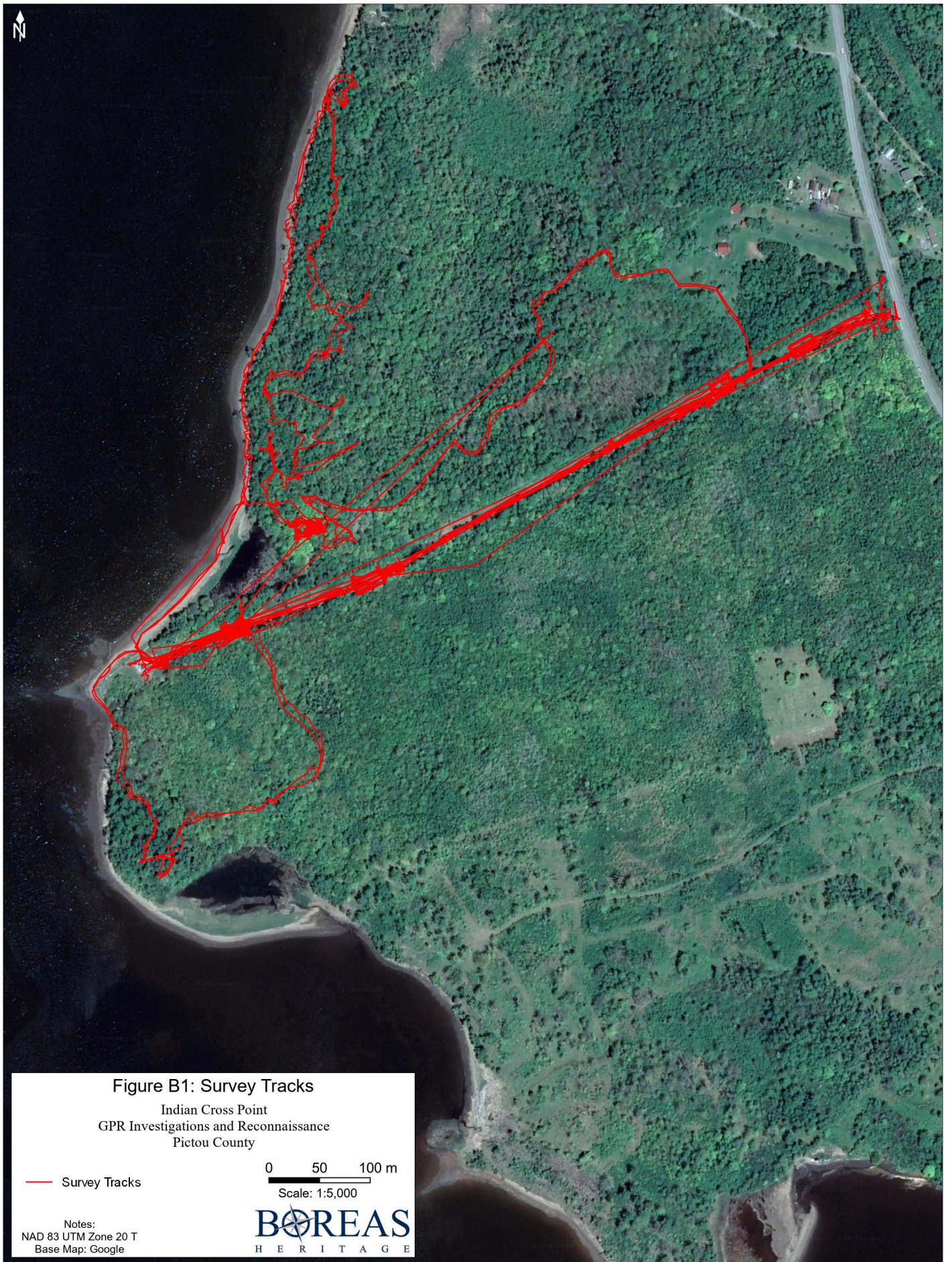


Figure B1: Survey Tracks

Indian Cross Point
GPR Investigations and Reconnaissance
Pictou County

— Survey Tracks

0 50 100 m

Scale: 1:5,000

Notes:
NAD 83 UTM Zone 20 T
Base Map: Google

