Appendix R
PLFN Open House No. 2 Summary Report

Environmental Impact Assessment
PLFN Open House No. 2 Summary Report

Boat Harbour Remediation
Planning and Design
Pictou Landing, Nova Scotia

Nova Scotia Lands

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1. Introduction

Nova Scotia Lands (NS Lands) has submitted a project description to the Impact Assessment Agency of Canada (formerly the Canadian Environmental Assessment Agency), which proposes the various ways the Boat Harbour Effluent Treatment Facility (BHETF) and surrounding areas can be remediated. Located on and adjacent to the lands of Pictou Landing First Nation (PLFN) in north central Nova Scotia along the Northumberland Strait, the BHETF was constructed in 1967 and reconfigured several times since its construction. In accordance with the Boat Harbour Act introduced in 2015, 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. Once operations have ceased, the Province will remediate Boat Harbour, and lands associated with the BHETF, and restore Boat Harbour to a tidal estuary.

This report summarizes the Open House No. 2 (POH#2) that was held with PLFN community members as part of the Federal Environmental Impact Assessment (EIA) for the Boat Harbour Remediation Project. The POH#2 was held on December 9, 2019 at the Fire Hall in Pictou Landing First Nation. This was the second Open House held specifically for PLFN residents as part of the EIA for this project. The first was held on August 27, 2019.

2. Background

An EIA is an important planning tool for predicting the potential environmental impacts of a project. It is a means of identifying environmental impacts before they occur and determining appropriate mitigation measures. Outlined by the Canadian Environmental Assessment Act of 2012, Section 2.2 of the EIA Guidelines requires meaningful participation included as part of the process, specifically indicating the following opportunities:

- The public, rightsholders and stakeholders are provided with an opportunity to participate in the EIA
- The public, rightsholders and stakeholders have an opportunity to comment on the draft EIA report
- Additional opportunities for participation may also be provided

Section 5 of the EIA Guidelines requires NS Lands to describe the ongoing and proposed engagement activities that NS Lands will undertake or that have already been undertaken with the Mi'kmaq of Nova Scotia. The EIS will indicate how and where the engagement activities were held, the concerns voiced and the extent to which this information was incorporated in the design of the project as well as in the EIS. The EIS will provide a summary of key issues raised related to the project and the potential effects to the environment, as well as describe any outstanding issues and ways to address them.

This Summary Report will be included as part of the final EIA Report and will reflect the specifications indicated above.

2.1 PLFN Open Houses

As part of the EIA, NS Lands has hosted two open house events for the PLFN community at key decision-making milestones:

- POH#1 provided PLFN with information on the project timeline, work completed to date, the EIA process, information on baseline studies, and the possible solutions for the remediation and treatment of Boat Harbour.

- POH#2 built on POH#1 by providing additional information on the project progression, including a review of the EIA results of the preferred solutions, including potential environmental effects, recommended impact management measures, proposed monitoring requirements, and proposed approvals/permits required for implementing the preferred solutions.

2.2 Purpose of PLFN Open House No. 2

The purpose of the POH #2 was to provide PLFN community members with an opportunity to review information, ask questions, seek clarification, and provide comments to the Project Team (i.e., NS Lands and GHD) on the following:

- Project Components and Activities
- Valued Components
- Impact Assessment and proposed mitigation measures
- Accidents and Malfunctions
- Effects of the Environment on the Project
- Cumulative Effects Assessments
- Follow-up and Monitoring Program

2.3 Date, Time, and Location

The Open House was held on December 9, 2019 from 3-6 p.m. at the Fire Hall located at Pictou Landing First Nation, Nova Scotia.

3. Attendance and Notifications

3.1 Attendance

There were 23 people in attendance at the POH#2. A separate Open House was held with the general public on December 10.

The Project Team members that were present represented NS Lands and GHD. The Project Team includes:

NS Lands
Ken Swain, Project Leader, Boat Harbour Remediation Project
Angela Swaine, Senior Project Manager, Boat Harbour Remediation Project
Darren Lawless, Environmental Project Manager
Marrinna Wells, Document Control Officer
Chad Lucas, Communications Advisor

GHD
Christine Skirth, Vice President and Project Manager
Blair Shoniker, Senior Waste and Environmental Planner

Representatives from the Impact Assessment Agency of Canada (IAAC) and federal agencies connected to the environmental assessment process also attended the open house.

3.2 Notifications

NS Lands notified PLFN community members about the Open House through the following means:

Facebook – POH #2 was advertised on the Pictou Landing First Nation Facebook page on November 27 and December 9 leading up to the Open House, using the flyer attached as Appendix A. The PLFN Facebook page has 1,311 followers as of Jan. 16, 2020. The Open House was also shared as an event in the closed A'se'k Facebook group, which is limited to PLFN community members.

Print – POH #2 was also advertised through a print poster that was placed on bulletin boards throughout the PLFN community, including the PLFN council office. (See flyer attached as Appendix A)

The methods above were selected and implemented in consultation with the Community Liaison Coordinator, who works directly with the PLFN community on the Boat Harbour Remediation Project.

4. Format

POH#2 was arranged as an informal drop-in session where members of PLFN could stop by any time during the given hours, review the information, and meet individually with Project Team members to discuss the project. The session included an introductory presentation to those in attendance. A video featuring a graphic rendering of what the containment cell might look like was also presented.

Project information was presented on large coloured display panels, with Project Team members stationed around the room to encourage discussion and answer questions from the community. To provide additional detail for those attendees wishing to gain a deeper understanding of specific project elements, a resource table provided additional information on environmental baseline studies and other relevant reference material. Copies of the display panels, presentation and handouts are included in Appendix B.

Display panels were arranged by station around the perimeter of the room as follows:

Station	Station Overview	Information Presented
1	Welcome and Background	- Welcome (title, date, time, photos) - Purpose of the event and the process for submitting comments - Background information on the Project - Overview of the Project and timelines - What's been done to date
2	Project Components and Activities Valued Components	- Areas for remediation - Water Management - Waste Management - Renderings of sludge disposal cell - Infrastructure - Valued Components - Other materials: sludge disposal cell infographic (NS Lands)
3	Impact Assessment	- Remediation (mitigation measures and residual effects) - Bridge and Infrastructure Decommissioning (mitigation measures and residual effects) - Waste Management (mitigation measures and residual effects) - Accidents and Malfunctions - Effects of Environment on the Project - Cumulative Effects Assessment
4	Monitoring and Wrap Up	- Proposed Follow-up and Monitoring Programs - What's included in the EIS - Next steps

5. Summary of Comments Received

Participants asked questions about the project during and following the presentation, with many questions and comments focused on the waste management plan and containment cell. The PLFN community liaison coordinator (CLC) also hosted a station at the open house where participants could give their feedback to PLFN Chief and Council on options for two aspects of the project—whether to use a detour or a temporary bridge during construction of a new bridge at Highway 348, and whether to cap and fill or completely remove the section of the pipeline where it comes ashore at Indian Cross Point. The CLC relayed participants' responses to Chief and Council. Participants were encouraged to write down their feedback on the comment sheets provided. Participants also had the option of submitting comments via email or mail, or through the Community Liaison Coordinator. The following table summarizes the written comments received and NS Lands' responses.

Comment	Response
Very disappointed with Jim Williams who sat on the Boat Harbour Environmental Advisory Committee. Didn't consider PLFN's suffering. Doesn't help the trust. He was a guest. -Can the project description be rejected considering lots of PLFN band & community members don't want it? -If so, how long will it take for a new project description? And to go through that process? A lot of community members feel as if we weren't consulted on other options… Just told that why other alternatives can't be an option. Also during this session you said the vegetation isn't afflicted but from an L'nu (Mi'kmaq) perspective it is. The water is contaminated, to us all of Boat Harbour is affected because of the contaminated water. And because we haven't been able to use it the way creator intended for us to use it.	Mr. Williams' opinion expressed in his editorial was his own, and was neither discussed with nor supported by the Boat Harbour Environmental Advisory Committee. The project description outlines the overall project and was used by federal regulators to determine a federal environmental assessment is required. Once the remediation team submits the environmental impact statement, the federal agency can accept the project, accept it with conditions, or reject it. If federal regulators reject the project, we would have to seek advice from decision-makers to develop and move forward with a new plan. If a new plan is developed, a new project description would need to be prepared to determine the environmental assessment pathway that would need to be taken (i.e. federal, provincial or both). Depending on the components of the project and the approvals required, this process would likely take several years. The project team looked closely at alternative options for several aspects of the project, including waste management. Given the risk of significant delay, increased environmental, health and safety risks, increased project duration and the estimated costs of siting and constructing an offsite containment cell, using the onsite cell is the preferred option. The project team initiated formal consultation with PLFN leadership in April 2018, including presentation of a document outlining options for waste management and why the existing cell is the preferred option. The project team also held six community sessions focused on waste management. We recognize that the Boat Harbour Effluent Treatment Facility (BHETF) has severely hindered Pictou Landing First Nation's ability to use the harbour and surrounding lands. 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 remediation project. As part of the project, we will do further monitoring to ensure vegetation is safe for use.

How do we go about getting approval for another containment cell somewhere else and using this plan for temporary storage. Move it later after another cell is approved.	Construction of a new, off-site containment cell would be a separate project that would require going through extensive public consultations and regulatory processes with municipal, provincial and federal regulators. We estimate such an approval process might take 5-8 years, along with another year for construction. The current project cannot be submitted without an approved long-term solution in place.
To bring it back to its natural state, we did not have a containment cell. What respect have you as a working group done to show the land and water though ceremony? Have you reached out for your tobacco and asked what our ancestors want? Instead of what government wants? (Where) there is a will there is a way to make the best of everything happen. No more short cuts and being treated second class.	Members of the remediation team have taken part in several ceremonies held by PLFN members and elders over the course of the project so far, including at Boat Harbour in September 2016 and at Lighthouse Beach in November 2016. Members of the remediation team also attended a cultural awareness session graciously hosted by PLFN. We are very grateful to the community for including us in these sacred traditions. We understand community concerns around the containment cell. The answer to comment #1 above gives some background on why the existing cell was chosen as the preferred option for the project. For more details, please see the containment cell Q&A available here [*link to URL*]. We are working diligently to make sure Boat Harbour can be cleaned up and returned to a tidal estuary in a manner that is effective and protective of human health and the environment.

6. Next Steps

NS Lands would like to thank all the individuals from PLFN who attended POH#2 and provided comments for consideration. Feedback will be included and addressed in Section 5 of the Environmental Impact Statement.

Comments on the Project are welcome at any time. All feedback received will be non-attributable and will be included as part of public record. Comments can be submitted through the following methods:

Email | boatharbour@novacotia.ca

Mail | Nova Scotia Lands, PO Box 397 Stn Central, Halifax, NS B3J 2P8

Community Liaison Coordinator | Michelle Francis-Denny
Email | michelle.f.d@plfn.ca
Phone | 902.752.4912, ext. 124

Appendix A

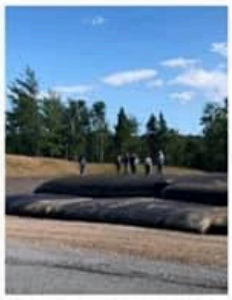
Community Notice

Boat Harbour Remediation Project
Open House #2 – Monday, December 9, 2019
3-6 pm Pictou Landing First Nation Fire Hall

The Boat Harbour Remediation Project is holding community information sessions with PLFN and the general public as part of the federal environmental impact assessment process. This is the second open house for PLFN residents, following one in August 2019.

Drop in for updates on the project since August, including:

- preliminary environmental impact assessment findings
- the remediation process and the proposed containment cell
- impact management measures and future monitoring
- anticipated timelines
    - Actual photo of sludge filled geotubes used during pilot scale. ----------→



It is important that community members who have questions, comments, concerns & feedback engage in this environmental assessment process and attend.

This session if for PLFN Community Members, Another Open House for the general public is also taking place at the Pictou Landing Fire Hall (5761 Pictou Landing Road) on December 10th from 4-8 pm.

For more info – Contact N.S. Lands
Email:boatharbour@novascotia.ca
Web: novascotia.ca/boatharbour

Boat Harbour Remediation Project
Nova Scotia Lands
PO Box 186
Halifax, NS B3J 2N2

Boat Harbour Remediation – PLFN Community Liaison
Email: Michelle.f.d@plfn.ca
Phone: 902 759-4929

Appendix B

Display Panels, Handouts and Presentation

WELCOME!

The purpose of this event is to discuss the preliminary results of the Environmental Impact Assessment (EIA) for the Boat Harbour Remediation Project.

Today we will:

- Provide an update on the Boat Harbour Remediation Project
- Present information and preliminary EIA findings
- Discuss the process for remediation and the proposed sludge disposal cell
- Provide an update on the anticipated timelines for completion
- Collect your views, ideas and concerns about the project

This Open House is an opportunity for you to...

- Learn more about and give feedback on the environmental impact assessment and proposed solutions
- Review and provide input on proposed impact management measures and future monitoring

A summary report will be available on January 17th, 2020 following incorporation of comments received. The report will be available at:

www.novascotia.ca/boatharbour

Since Open House #1, we have:

1. Collected additional baseline data
2. Developed additional design details on the Preferred Solutions
3. Undertaken the preliminary Impact Assessment and Cumulative Effects Assessment

Today NS Lands is...

4. Presenting the preliminary results of the impact assessment of the Preferred Solutions

Themes of Community Feedback Received to Date

- **People are encouraged that remediation will occur**
- The closure date of January 2020 should be honoured
- **Concerns exist around the long-term plan for the sludge disposal cell**
- Concerns exist around the environmental impact on groundwater from dredging up sludge
- **Comments that the pipeline should be completely removed**
- Suggestions that the sludge material should be shipped to another community

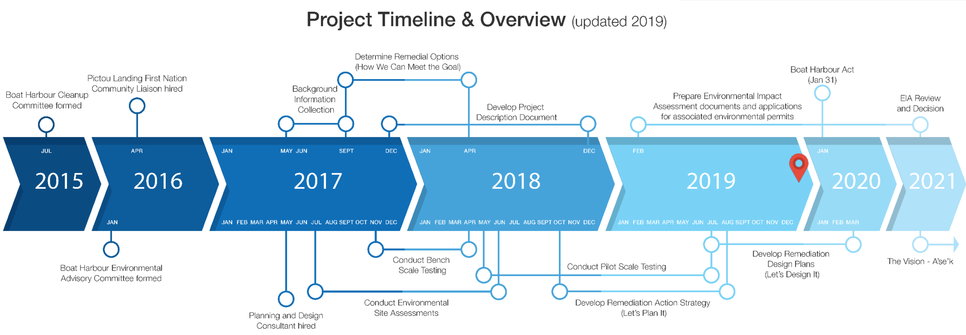
Background

Our Goal

We will remediate Boat Harbour and restore to a tidal estuary. **A solution was developed that is:**

- Identified and assessed using a collaborative approach
- Founded on proven technologies
- Evaluated with openness and transparency
- Protective of human health and the environment

What's Been Completed?



- Developed a Remedial Objective
- Conducted Bench Scale Testing
- Conducted Pilot Scale Testing
- Completed Baseline Studies
- Consulted with PLFN and Agencies
- Completed Environmental Site Assessments
- Determined Remedial Options
- Developed a Remedial Action Strategy
- Prepared preliminary designs for the proposed solutions
- Completed the impact assessment for the proposed solutions

What needs to be done?

Returning Boat Harbour to tidal requires removing infrastructure and industry contaminants from Boat Harbour. This process includes:

- Decommissioning and/or repurposing the existing infrastructure
- Removing and managing contamination
- Removing the causeway and building a new bridge
- Removing the existing dam

It is expected that cleanup will take 4-7 years

Complete/ Nearing Completion | In Progress | Pending

Scientific and Technical Planning

- Develop remedial objectives, with the vision to return Boat Harbour to a tidal estuary
- Conduct studies to determine the extent of contamination and evaluate environmental baseline conditions
- Conduct studies to ensure that human health and the environment are protected
- Develop and assess remediation solutions in order to propose methods for the cleanup

Regulatory Phase

- Regulatory review and consultation
- Conduct Environmental Impact Assessment
- Indigenous /Public Consultation and Engagement

Clean Up Phase

- Permits and Approvals and Contractor Selection
- Remediation Implementation
- Environmental management and monitoring

Project Components & Activities

Areas for Remediation

Wetland Remediation

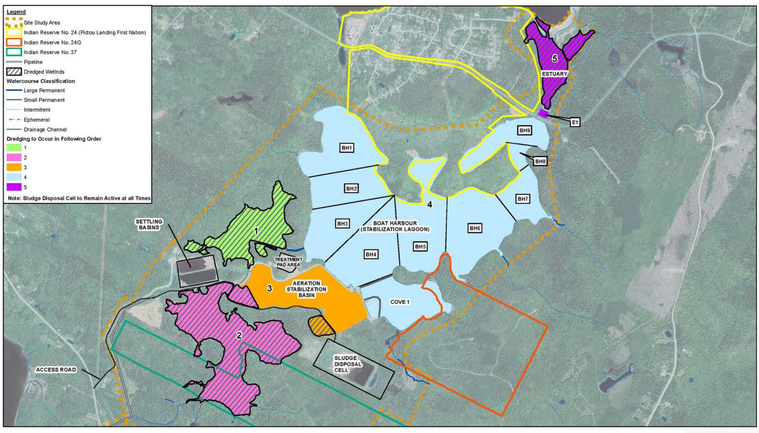
- Impacted area is approximately 38 hectares
- Contains approximately 260,000 m^3 of sludge and root mass to be managed

Hydraulic Dredging

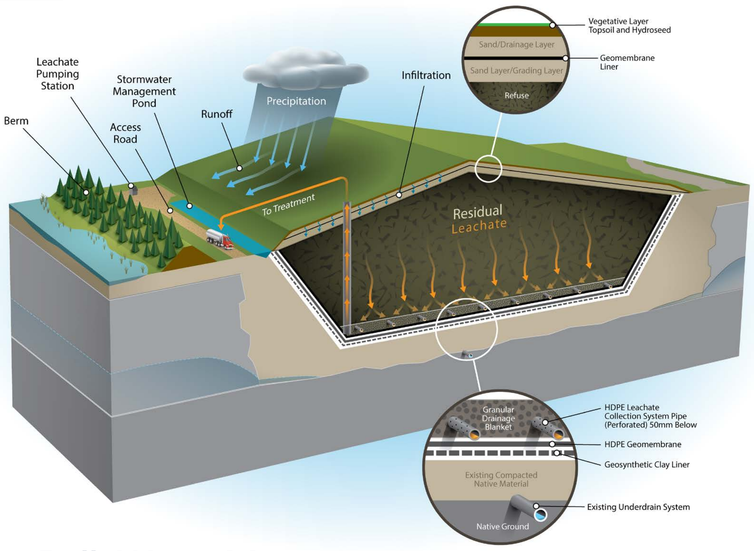
- Aeration Stabilization Basin
- Boat Harbour Stabilization Lagoon
- Wetlands and estuary

Mechanical Dredging

- Settling basins and ditches
- Vegetation overlying sludge



Water Management



Conceptual Cross Section of Sludge Disposal Cell

Bulk Water Management

- Impacted surface water and groundwater
- Contaminant levels will be reduced through surface water and groundwater drainage, also known as natural attenuation

Leachate Management

- Leachate is water that comes in contact with material within the sludge disposal cell
- It is collected and treated via temporary leachate treatment system
- Upon closure of sludge disposal cell, leachate will be directed to a buried tank, pumped and disposed of at an off-site Waste Water Treatment Plant

Project Components & Activities

Waste Management

Sludge Disposal Cell

- Sludge generated from remediation of Boat Harbour Effluent Treatment Facility
- Modifications to enhance base liner system and leachate collection system

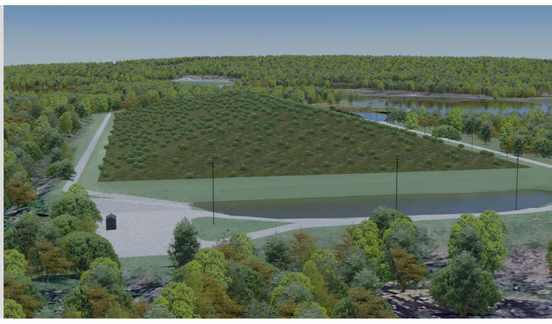
Existing Sludge Disposal Cell

Virtual Renderings of Proposed Sludge Disposal Cell

View from what was formerly the Aeration Stabilization Basin
Location: Northeast of the sludge disposal cell

View from driving along the access road on the south side of the harbour
Location: Facing southeast, just before driving up the hill to the sludge disposal cell

View of the sludge disposal cell, leachate pumping facility, stormwater management pond and access roads
Location: South side of the sludge disposal cell



Other Waste Generated During Remediation

- Construction/ Demolition debris
- Industrial waste from remediation activities
- Potential for composting (cattails/organic material removed from wetlands)

Project Components & Activities

Infrastructure

Bridge at Highway 348

- Causeway will be demolished/ decommissioned, replaced with a concrete girder bridge along the same alignment

- Constructed prior to dam decommissioning to allow sediment to be managed within Boat Harbour and prevent its migration downstream to the estuary or Northumberland Strait

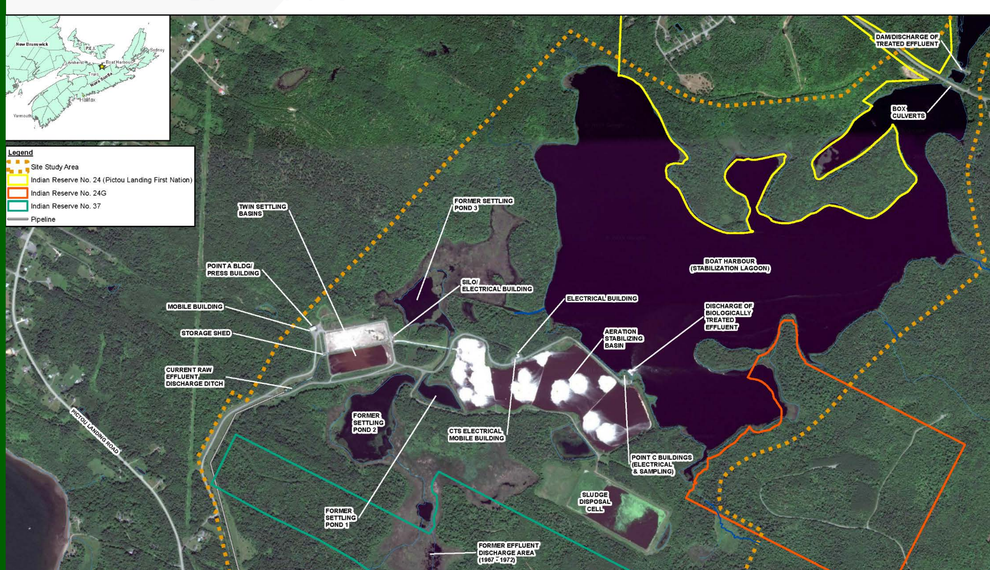
Virtual Rendering of Proposed Bridge

Infrastructure Decommissioning

- Pipeline (on-land and under water)
- Treatment Buildings
- Dam

Remediation Infrastructure

- Water supply pipe to Pictou Landing First Nation
- Site Access
- Permanent and Temporary Linear Infrastructure
- Energy Supply (via overhead lines)



Valued Components

What is a Valued Component?

Valued Components (VCs) are areas of focus for environmental assessments that examine the aspects of the *natural* and *human* environment.

They include components that are considered to have scientific, ecological, economic, social, cultural, archaeological, historical, or any other type of significant importance.

What are the Valued Components for the Boat Harbour Remediation Project?

Air Quality & Odour
Greenhouse Gases (GHGs)
Noise
Light
Geology, Geochemistry, and Soil
Groundwater
Surface Water
Terrestrial Habitat & Vegetation
Wetlands
Mammals & Wildlife
Marine Environment
Aquatic Habitat
Fish & Aquatic Habitat
Migratory Birds
Species At Risk
Mi'kmaq of Nova Scotia
Economic and Social
Human Health
Archaeological/ Cultural Heritage Resources

Potential impacts to the VC's are assessed as part of the EIA process.

Impact Assessment

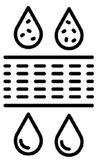
Mitigation Measures and Significance of Residual Effects

Remediation

Mitigation Measures

Maintain existing vegetation cover whenever possible and minimize overall areas of disturbance

Clean and inspect equipment prior to arrival to reduce the potential for introduction of non-native species



Use of silt curtains to control suspended sediments

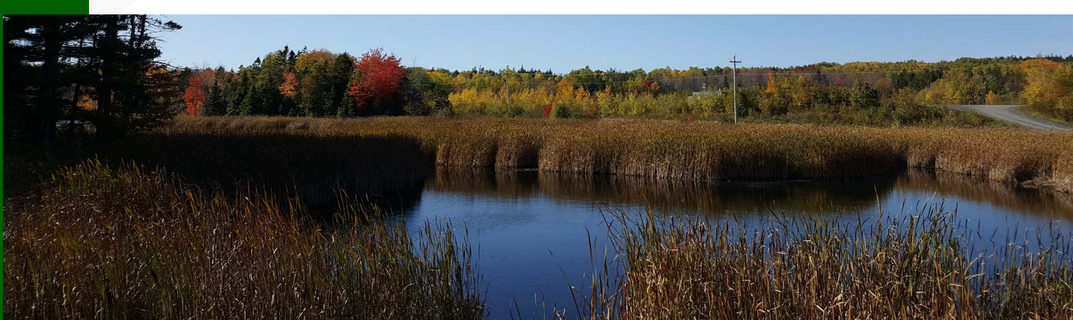
Conduct confirmatory sampling to confirm that remaining sediment meets the applicable remedial quality standards.

Use of water trucks to suppress dust

Key Residual Effects

- Minor disturbance to sensitive receptors (e.g., residences, schools, parks, hospitals, historic buildings, etc.) and species in the vicinity of the Project area through 24 hour operation of dredging equipment and presence of workers
- Minor adverse residual effects to wetlands and fish and fish habitat from dredging activities, including loss of habitat and mortality of species inhabiting these areas
- Minor adverse effects to air from additional truck/ vehicle movements on site

Adverse effects will be short term and are not anticipated to be significant once restoration activities are complete.



Impact Assessment

Mitigation Measures and Significance of Residual Effects

Bridge at Highway 348 and Infrastructure Decommissioning

Mitigation Measures

Maintain existing vegetation cover whenever possible and minimize overall areas of disturbance

Re-fueling, and equipment maintenance will occur at least 30 m away from any wetland or watercourse

Implement erosion and sediment control practices prior to any soil disturbing activities, when applicable

Use of water trucks to suppress dust

Use of silt curtains to control suspended sediments during removal of dam

Key Residual Effects

Adverse residual effects:

- Increased disturbance in the area from operation of heavy equipment and increased truck traffic
- Detour during removal of causeway and construction of the Bridge will cause loss of revenue to local community from lack of access
- Temporary bridge construction

Adverse effects will only occur during the Project and therefore are not considered to be significant

Positive residual effect:

- Re-introduction of tidal influence to Boat Harbour

Impact Assessment

Mitigation Measures and Significance of Residual Effects

Waste Management

Sludge Disposal Cell - Design Controls and Mitigation Measures

- Enhancements to base liner system and leachate collection system
- Maintain existing leak detection system
- Increase the height of berms around cell for structural stability
- Minimize the amount of rain that comes in contact with waste
- Use trees and shrubs for visual screening
- Maintain existing vegetation cover whenever possible and minimize overall areas of disturbance

Key Residual Effects

Riparian (shoreline), Wetlands, Aquatic and Terrestrial Environments

- Disturbance to species inhabiting the site from increase in truck traffic for import of materials and equipment (e.g., aggregate for roads and staging areas, and materials for sludge disposal cell construction).
- Loss of terrestrial and wetland habitat through upgrades to existing access roads to the sludge disposal cell.

Surface Water

- Increased surface water runoff required to be managed.

Visual

- Change in viewshed due to capped sludge disposal cell.

- The residual effects are not deemed significant as Boat Harbour is not currently considered to be high value habitat. Any short-term disruption will result in long-term benefit, as all impacted sediment will be removed and native vegetation communities will be established.

Impact Assessment

Cumulative Effects Assessment

Present Activities
- Tire manufacturing
- Large scale printer
- Coal fired generating station
- Kraft paper production

Past Activities
- Ship building and repair
- Chlor-alkali plant
- Steel making
- Fabrication activities

Future Regional Activities may include the Replacement Effluent Treatment Facility Project, Fifteen Mile Stream Gold Mine, Highway 104 Twinning project, MacLellans Mountain Quarry Expansion.

Residual Effects
No significant residual cumulative effects are anticipated as mitigation measures have been implemented for the atmospheric environment, surface water, groundwater, wetlands, fish and fish habitat, health, socio-economics and Indigenous communities.

Accidents and Malfunctions

Accidents and malfunctions are events that are not part of any planned activity or normal operation of the Project. Scenarios that were examined and the potential environmental effects that might arise were predicted to be unlikely to occur.

The following scenarios were considered:

- Accidental discharges of contaminated sediments during dredging
- Erosion and sediment control failure
- Sludge disposal cell failure (liner or cap)
- Leachate storage tank failure/tanker truck spill
- On-Site hazardous materials spill
- Release of effluent from the temporary wastewater treatment facility above effluent criteria
- Failure of a surface water management pond;
- Bridge failure
- Off-Site trucking accident
- Vehicle collision
- Fire

Impact Assessment

Effects of Environment on the Project

The assessment included examining how the following local conditions and natural hazards, and external events could affect the Project:

- Climate Change Effects;
- Extreme weather events, including flooding and drought, extreme temperatures, increased snow, ice, rain, and wind storms;
- Lightning strikes; and
- Seismic events.

No significant adverse environmental effects are anticipated due to the environment, once mitigation measures have been applied.

Follow-Up & Monitoring

Monitoring is a mechanism to gauge Project performance and measure against baseline conditions and effects as predicted in the EA, as well as expectations of regulators, the public, the Mi'kmaq of Nova Scotia and interested parties.

What will be included as part of the monitoring process?

1. **Environmental Impact Assessment Follow-up/ Monitoring**
   - Verify the accuracy of the impact assessment
   - Determine effectiveness of the mitigation measures implemented to mitigate the adverse effects of the project
   - Identify the need for any new mitigation measures

2. **Project Monitoring**
   - Specific Plans/ Programs to be implemented once remediation is complete and will continue for many years following the clean up.
   - Includes specific locations, planned protocols, methods
   - Potential engagement of PLFN in future monitoring

Monitoring During and Post Remediation

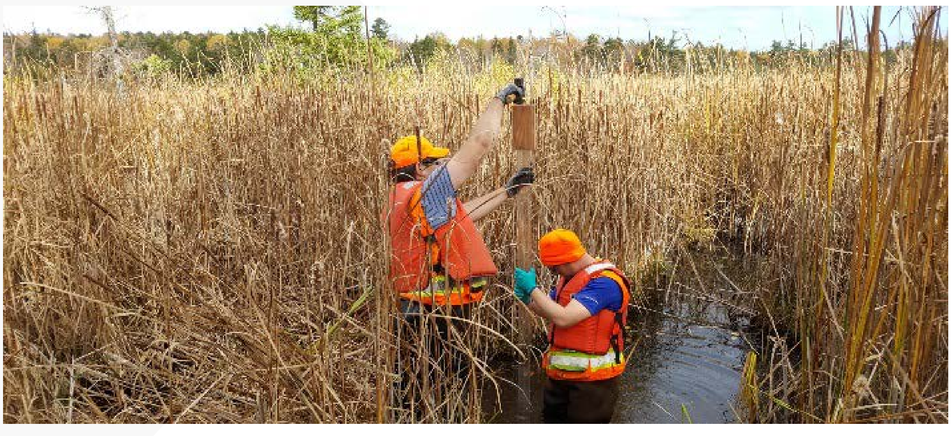
What has been included in the EIS as it relates to monitoring?

Preliminary monitoring plans have been developed for the following VCs:

- Atmospheric (air quality and odour)
- Groundwater and surface water
- Terrestrial habitat and vegetation
- Wetlands
- Mammals and wildlife
- Marine environment and fish and fish habitat
- Migratory birds
- Species at Risk
- Mi'kmaq of Nova Scotia
- Archaeological/Cultural Heritage Resources

The monitoring plans will be further developed upon federal approval of the EA in consultation with Indigenous communities and regulatory agencies.

As committed to in the EIS the results of monitoring will be documented and where appropriate made available to stakeholders.



What's Next?

- Responses to public feedback will be provided on the Boat Harbour website
- Impact management measures and recommended monitoring programs will be confirmed in light of comments received
- The Draft Environmental Impact Statement will be prepared
- Stakeholders will be notified of review opportunities

How do I submit comments?

To ensure your views are considered, please submit your comments to NS Lands by: January 3, 2020.

Complete a comment form today

Submit a comment on the website
www.novascotia.ca/boatharbour

Submit a comment via email
boatharbour@novascotia.ca

Submit a comment via mail
Nova Scotia Lands
PO Box 397, Stn Central
Halifax, NS B3J 2P8

Consultation and Engagement to Date

Public

NS Lands held the first Public Open House in August 2010, as well as three public meetings in October 2016, April 2018, and May 2018 prior to the start of the EIA. The first Open House for the EIA took place in August 2019. At these meetings, project concepts and plans were presented and discussed with a focus on pilot scale testing activities.

Pictou Landing First Nation

PLFN has been engaged since 2015

- Boat Harbour Clean-up Committee (BHCC)
- Boat Harbour Environmental Advisory Committee (BHEAC)
- Community Information Sessions
- Informal Focus Groups
- Employment and Business Opportunities
- PLFN Open Houses
- PLFN has been engaged in development of the Wellness Study

What is the Wellness Study?

The Wellness Study will assess how to consider the effects of the Boat Harbour Remediation Project on the mental and social well-being of Pictou Landing First Nation members.

NS Lands has engaged with Pictou Landing First Nation to establish the baseline mental and social well-being status of the potentially affected population, and identify effects from the Project, mitigation measures, and long-term monitoring requirements.

How does Government play a role?

Impact Assessment Agency of Canada

The Impact Assessment Agency of Canada (IAAC) will coordinate the process, review the EIA results, and make a decision. They will approve or reject the project as proposed, based on the predicated environmental effects.

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As the proponent, NS Lands represents the province of Nova Scotia and are responsible for cleaning up Boat Harbour. NS Lands is a provincial Crown corporation whose mandate includes remediating Crown-owned properties.

Other federal and provincial agencies will provide expertise on the studies and requirements for remediation, as well as related approvals.

Environment and Climate Change Canada, Fisheries and Oceans Canada, Health Canada, Indigenous Services Canada, Infrastructure Canada and Transport Canada

Environment, Lands and Forestry, Office of Aboriginal Affairs and Transportation And Infrastructure Renewal

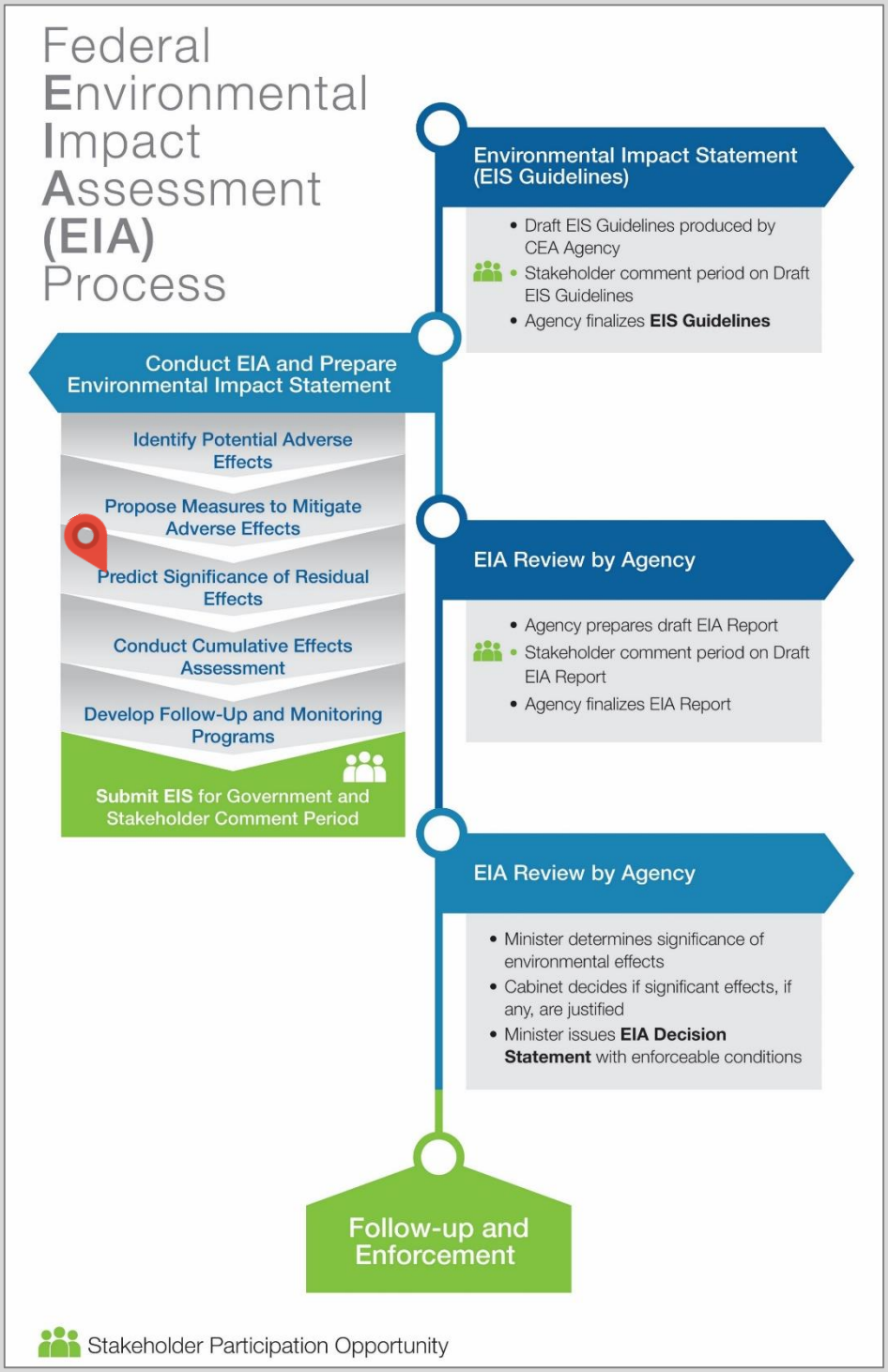
What is an EIA?

What is an Environmental Impact Assessment (EIA)?

It is a planning and decision-making tool. The objectives of an EIA are to minimize or avoid environmental effects before they occur and incorporate environmental factors into decision making.

Why is an EIA being completed?

To understand how the cleanup will impact and protect human health and the environment. Before remediation can take place, the EIA must be approved by the government of Canada.



What is examined in an EIA?

Environmental effects and cumulative environmental effects and their significance

Public and PLFN comments

Mitigation measures and follow-up requirements

Solutions to carry out the project

Changes to the project caused by the environment

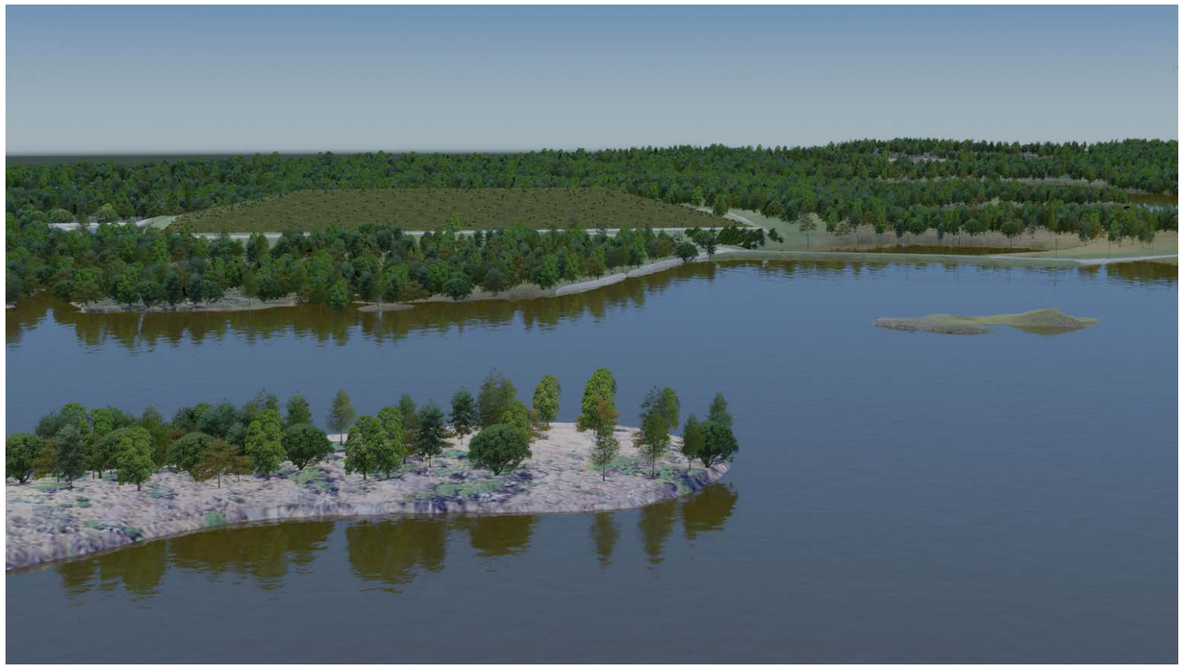
Results of any relevant regional study and any other relevant matters

Why a Containment Cell?

The mission of the Boat Harbour Remediation Project is to remove contaminated sludge from the harbour bottom and surrounding environment so A'se'k can be restored to a tidal estuary. Once removed, the contaminated material must be stored safely to prevent harm to people, animals and the environment.

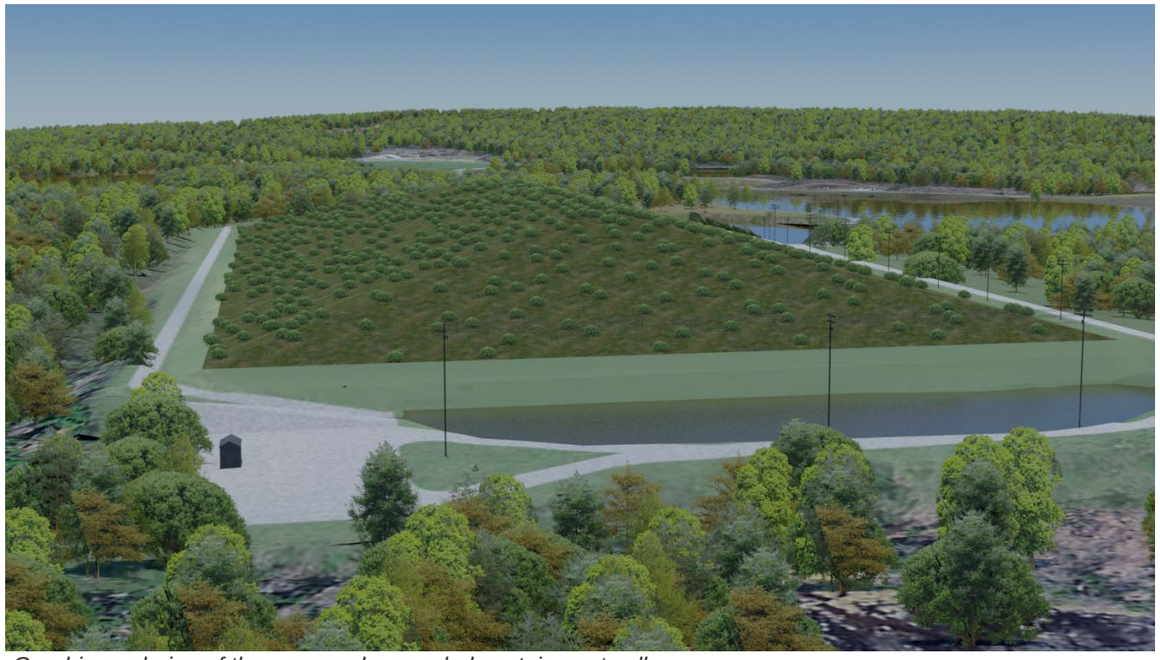
Based on pilot-scale work and mapping of the harbour bottom to date, the project team's best estimate is that about one million cubic metres of sludge must be removed as part of the cleanup. Once excess water is removed, the volume will be reduced by 50-70 per cent. The project team has considered different scenarios for storing the contaminants. The most effective and efficient option is to expand the existing containment cell, which has received contaminated material from Boat Harbour since 1996.

This document is designed to address the questions people have raised about the containment cell in previous meetings and consultation sessions.



Graphic rendering of the proposed expanded containment cell

Boat Harbour Remediation Project



Graphic rendering of the proposed expanded containment cell

Q. Why can't the sludge be stored somewhere else?
A. The existing containment cell is the only one in the province approved by Nova Scotia Environment to accept waste material from Boat Harbour. Building a new, off-site containment cell would be a long and expensive project. It would need to be approved by municipal, provincial and federal regulators after extensive public consultation. We estimate it might take 5-8 years to go through that process, with another year for construction—and even then the project might not receive approval.

Q. What is the existing containment cell and how can you guarantee it will be safe?
A. The existing containment cell was built in the mid-1990s and has been in use since then, safely storing more than 150,000 cubic meters of sludge from Boat Harbour. The cell base liner is constructed with a leachate collection system, which collects all water that has come in contact with the waste, underlaid by a natural clay (low permeable soil) and underdrain water collection system. The base liner will be modified to make sure it is safe in the long-term by adding a synthetic clay geomembrane liner over the natural clay base liner, as well as a new leachate collection system. These steps will result in a sound and safe solution for the containment of the waste long-term.

Q. Is there an approved cell in Quebec? Could the sludge be trucked there?
A. Transporting the contaminated material to another province, or even within Nova Scotia, would create other health and environmental risks. It would take about 20,000 tandem transport trucks to move the estimated amount of dewatered material. This would dramatically increase the negative impacts of the cleanup, the duration of the project and the amount of traffic in the community. It would also increase the risk of a spill or spread of contamination.

Q. Could the contaminants be disposed of in some other way, like incineration?
A. The sludge in Boat Harbour is contaminated with material including dioxins and furans, which are the contaminants of most concern. A containment cell is the safest, most effective and most efficient way of managing these contaminants to protect human health and the environment. Incineration poses risks associated with air quality that we choose to avoid, and it is not a readily approvable method of disposal.

Q. How big will the expanded cell be?
A. The cell's footprint will not be increased, and we expect the cell will be expanded by a height of about 12-20 metres (*see graphic representation at left*). The cell will be designed to look like a natural hill. It will have vegetation coverage with trees and shrubs.

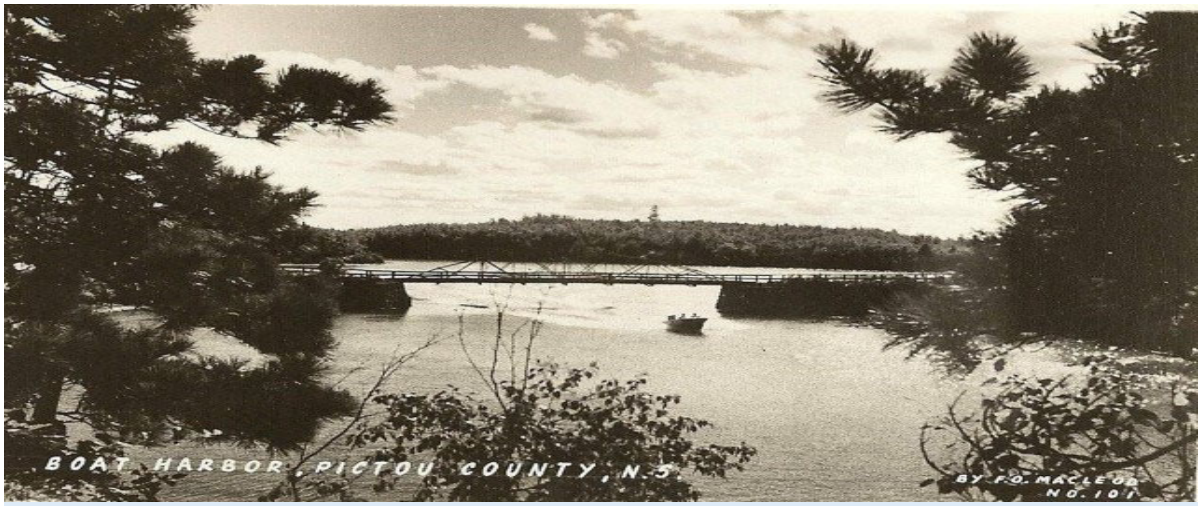
Q. Who is responsible for the containment cell?
A. The province is responsible for the long-term maintenance and monitoring of the containment cell. The existing cell has proven effective and it will be improved during the remediation project. A monitoring plan will be put in place with regular reporting to environmental regulators.

Q. Pictou Landing First Nation has had to deal with the contamination of Boat Harbour for more than 50 years. Isn't it unfair to leave the contaminants near Boat Harbour?
A. We know the containment cell is not a perfect solution that satisfies everyone. Unfortunately, there is no perfect solution in this case. We can't completely erase the harmful effects of the past. What we can do is work together to restore Boat Harbour so the community can use the land and waters once again and benefit from the environment for generations to come.

Contact:
Boat Harbour Remediation Team
Email: boatharbour@novascotia.ca
Web: novascotia.ca/boatharbour

The Boat Harbour Remediation Project

PLFN Open House – December 9, 2019



Maw-Lukutinej Waqama'tuk A'se'k

"Let us work together and clean up Boat Harbour"

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Overview of Presentation

- PLFN Engagement
- Areas for Remediation
- Waste and Water Management (Sludge Disposal Cell)
- Impact Assessment
- Mitigation Measures and Monitoring
- Next Steps

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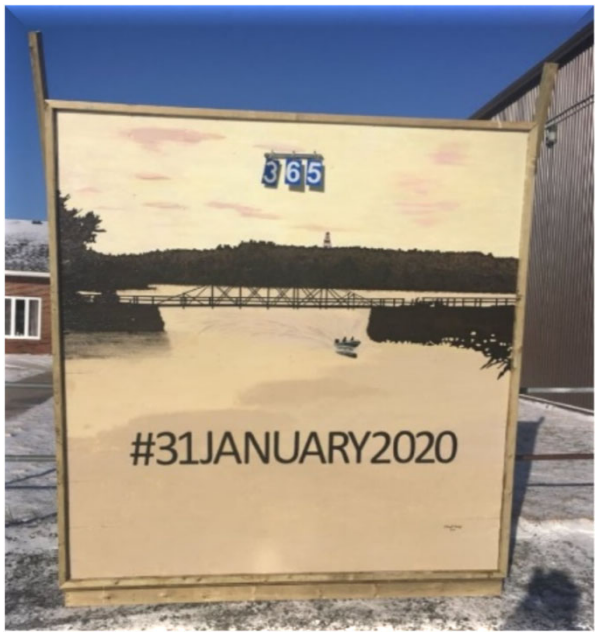
Pictou Landing First Nation and Mi'kmaq

- Boat Harbour Clean-up Committee (BHCC)
- Boat Harbour Environmental Advisory Committee (BHEAC)
- Community Information Sessions
- Informal Focus Groups
- Employment and Business Opportunities
- Community Liaison Coordinator
- PLFN Open House #1
- Wellness Study



Areas for Remediation

Wetland Remediation

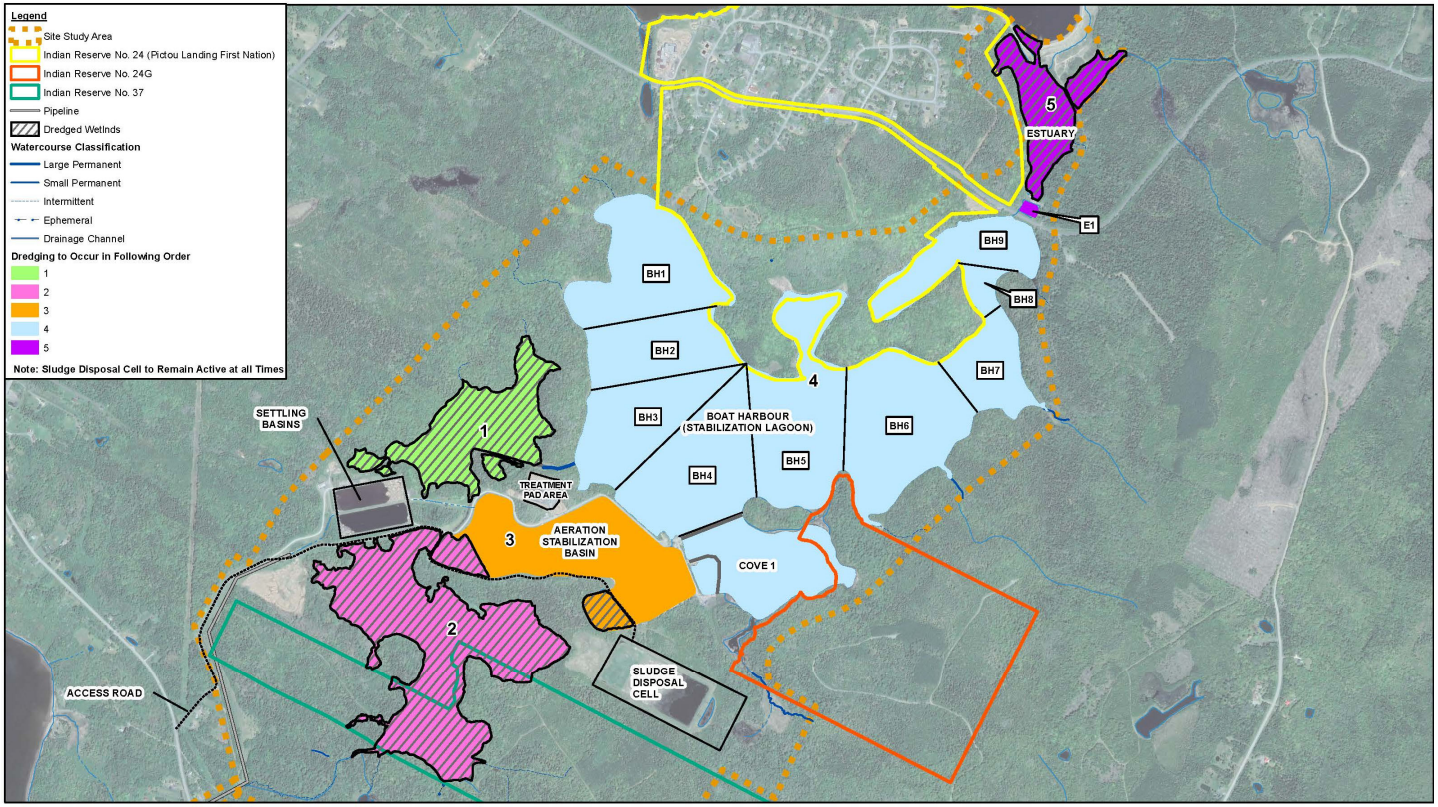
- Impacted area is approximately 38 hectares
- Contains approximately 260,000 m^3 of sludge and root mass to be managed

Hydraulic Dredging

- Aeration Stabilization Basin
- Boat Harbour Stabilization Lagoon
- Wetlands
- Estuary

Mechanical Dredging

- Settling basins and ditches
- Vegetation overlying sludge



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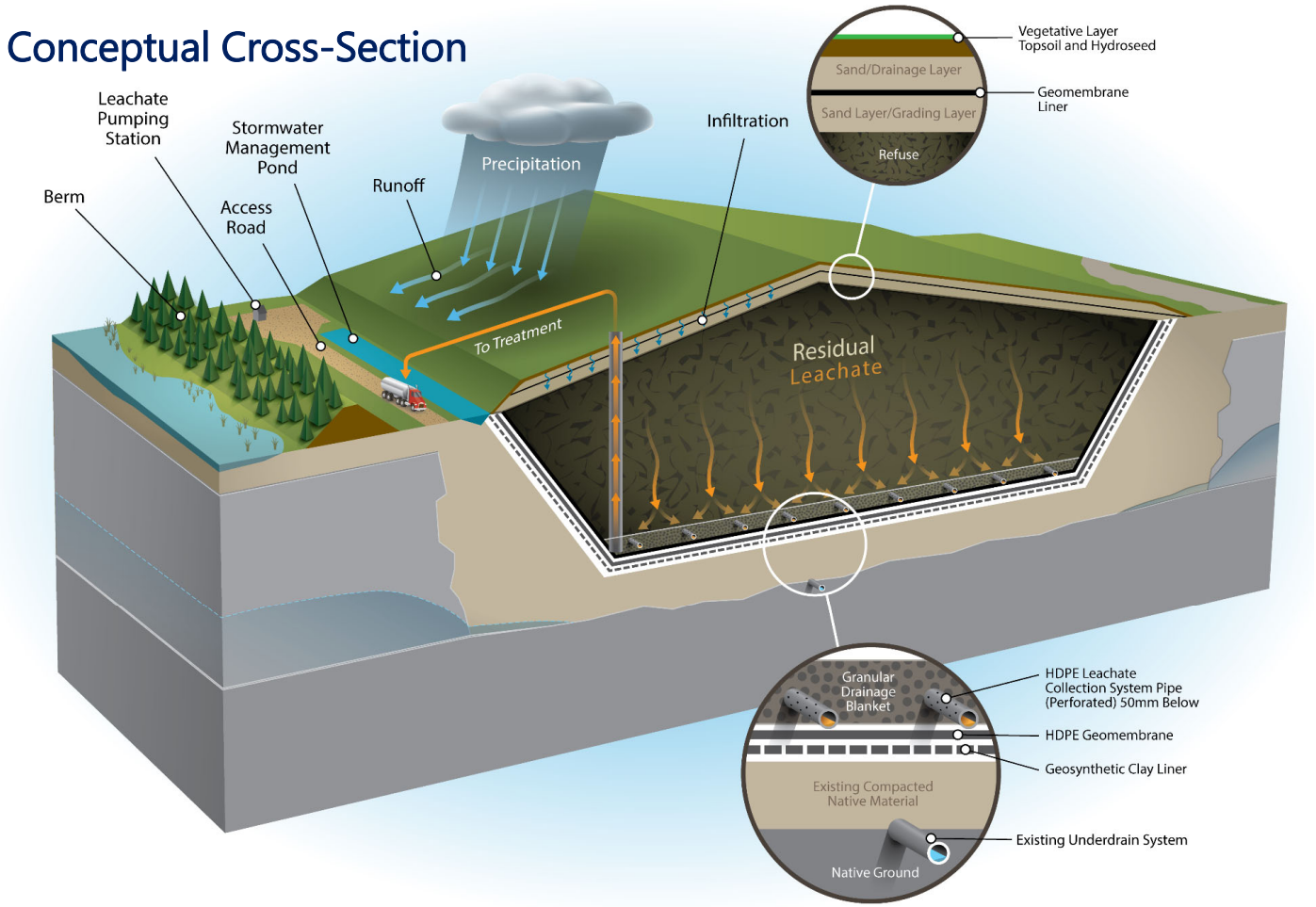
Waste and Water Management

Conceptual Cross-Section



Bulk Water Management

- Impacted surface water and groundwater
- Contaminant levels will be reduced through surface water and groundwater drainage, also known as natural attenuation

Leachate Management

- Leachate is collected and treated via temporary leachate treatment system
- Upon closure of sludge disposal cell, leachate will be directed to a buried tank, pumped and disposed of at an off-site Waste Water Treatment Plant

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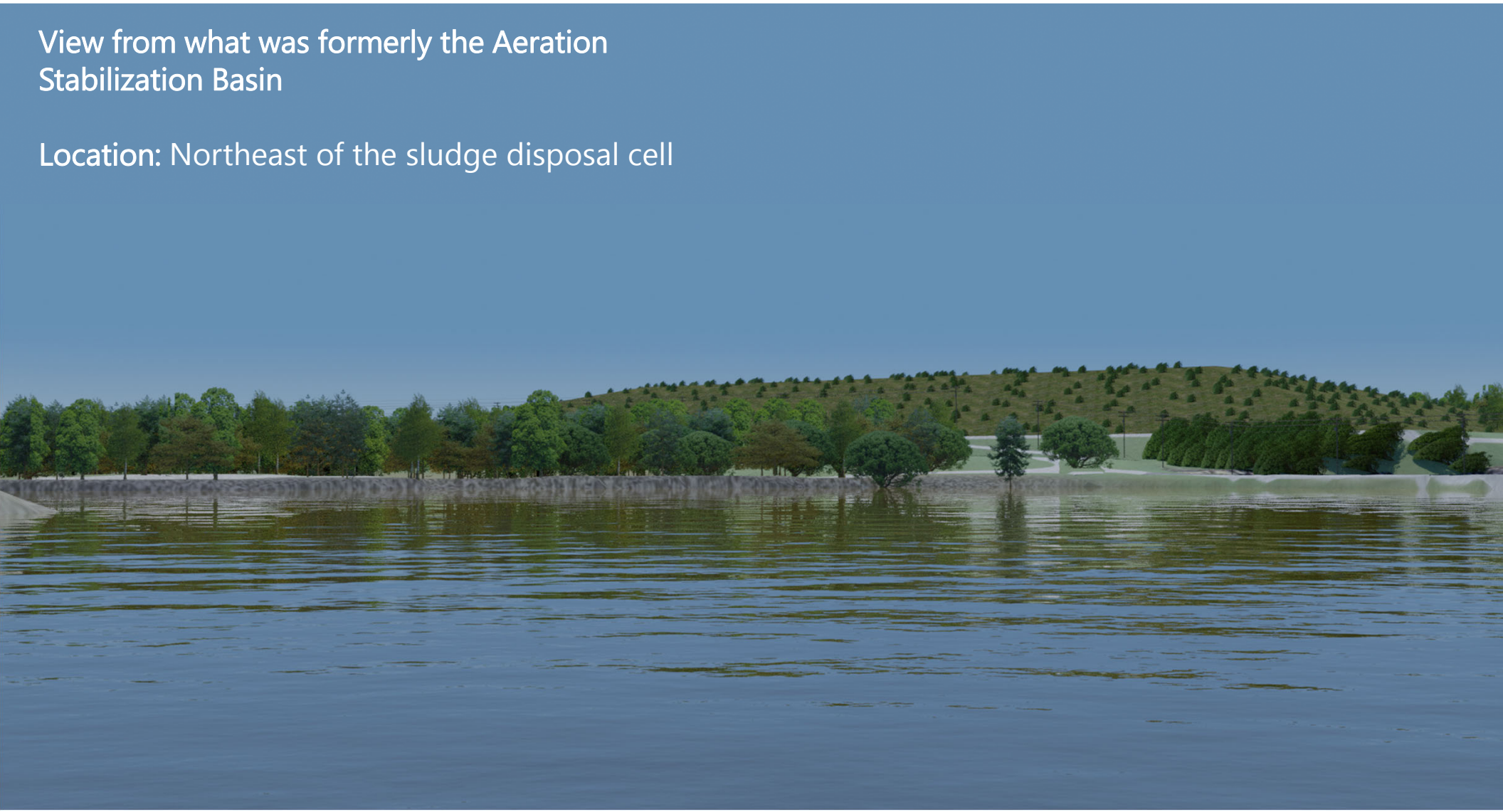
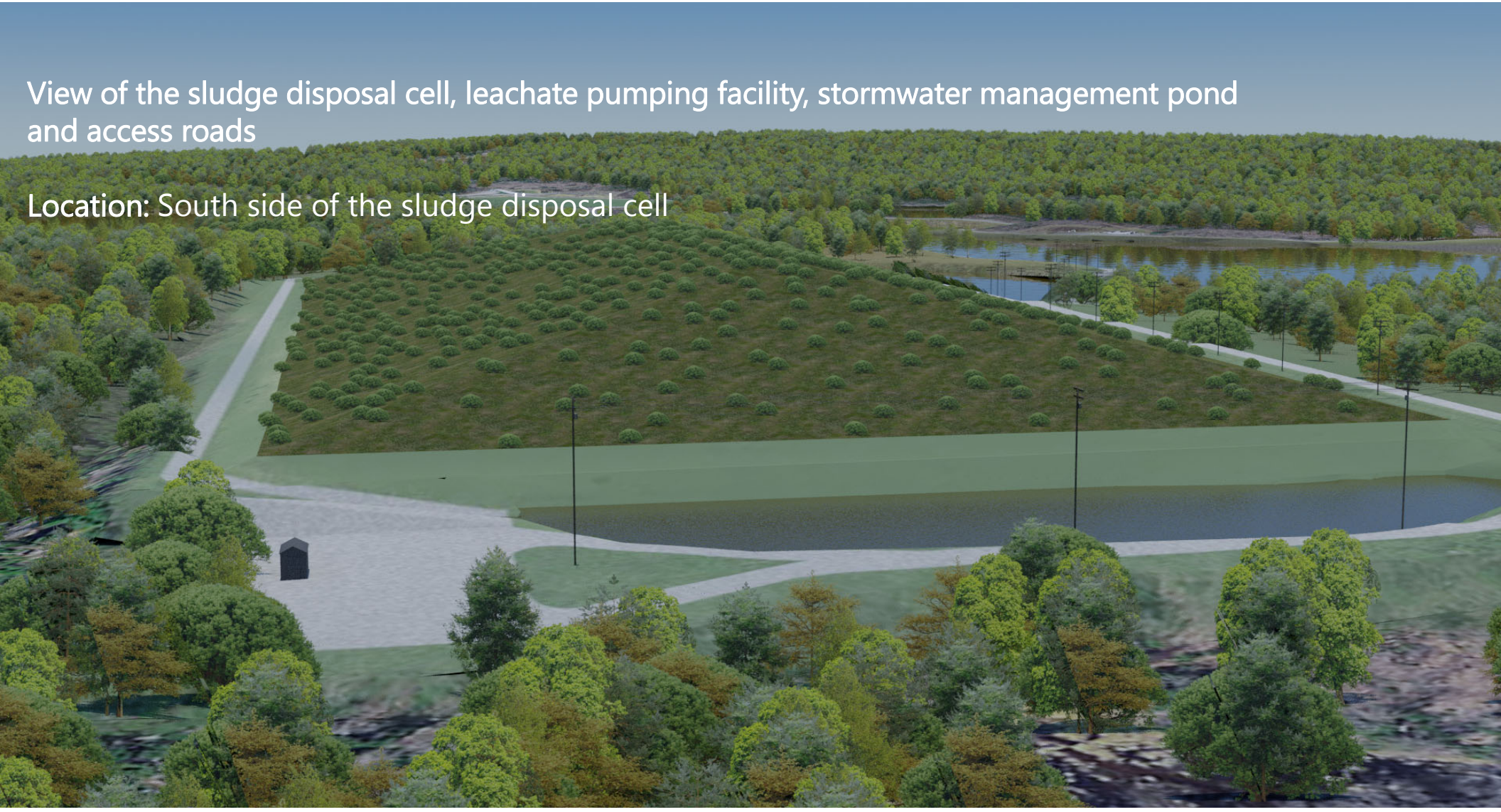
View from what was formerly the Aeration Stabilization Basin

Location: Northeast of the sludge disposal cell



View from driving along the access road on the south side of Boat Harbour

Location: Facing southeast, just before driving up the hill to the sludge disposal cell



View of the sludge disposal cell, leachate pumping facility, stormwater management pond and access roads

Location: South side of the sludge disposal cell

Sludge Disposal Cell – Visualization Video

https://vimeo.com/user9670035/review/377159485/5d84f22d7a

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Virtual Rendering of Proposed Bridge

Bridge at Highway 348

- Causeway will be demolished/ decommissioned, replaced with a concrete girder bridge along the same alignment

- Constructed prior to dam decommissioning to allow sediment to be managed within Boat Harbour and prevent its migration downstream to the estuary or Northumberland Strait

Valued Components

- Air Quality & Odour
- Greenhous Gases (GHGs)
- Noise
- Light
- Geology, Geochemistry, and Soil
- Groundwater
- Surface Water
- Terrestrial Habitat & Vegetation
- Wetlands
- Mammals & Wildlife
- Marine Environment
- Fish & Aquatic Habitat
- Migratory Birds
- Species At Risk
- Mi'kmaq of Nova Scotia
- Economic and Social
- Human Health
- Archaeological/ Cultural Heritage Resources

Potential impacts to the VC's are assessed as part of the EIA process.

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Remediation - Mitigation Measures

Maintain existing vegetation cover whenever possible and minimize overall areas of disturbance

Clean and inspect equipment prior to arrival to reduce the potential for introduction of non-native species

Use of silt curtains to control suspended sediments

Conduct confirmatory sampling to confirm that remaining sediment meets the applicable remedial quality standards.

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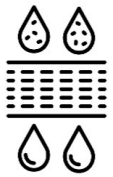
Bridge and Infrastructure Decommissioning - Mitigation Measures

Maintain existing vegetation cover whenever possible and minimize overall areas of disturbance

Re-fueling, and equipment maintenance will occur at least 30 m away from any wetland or watercourse

Implement erosion and sediment control practices prior to any soil disturbing activities, when applicable

Use of water trucks to suppress dust



Use of silt curtains to control suspended sediments during removal of dam

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Sludge Disposal Cell – Mitigation

- Enhancements to base liner system and leachate collection system
- Maintain existing leak detection system
- Increase the height of berms around cell for structural stability
- Minimize the amount of rain that comes in contact with waste
- Use trees and shrubs for visual screening
- Maintain existing vegetation cover whenever possible and minimize overall areas of disturbance
- Use of water trucks to suppress dust

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Monitoring Before and After Remediation

Preliminary monitoring plans have been developed as part of the EA. The monitoring plans will be further developed upon federal approval of the EA.

As per the Environmental Impact Statement (EIS) guidelines, the Mi'kmaq of Nova Scotia will be engaged in monitoring, where appropriate, including but not limiting to monitoring of:

- Air quality and odour
- Wetlands
- Archaeological/Cultural Heritage Resources

As committed to in the EIS, the results of monitoring will be documented and made available for review.

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Next Steps

- The Draft Environmental Impact Statement will be prepared and submitted in early 2020
- Information requests and any additional studies will be completed through 2020
- We expect Impact Assessment Agency of Canada approval or rejection of Project in early 2021
- If approved, planning for the cleanup proceeds in late 2021

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Appendix C
Comment Sheets

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COMMENT FORM
Boat Harbour Remediation Project
PLFN Open House – December 9, 2019

Name: [redacted]
Address: Pictou Landing **Telephone:** [redacted]
E-mail Address: [redacted]

How did you hear about this event?

☐ Letter/E-mail ☑ Community Liaison Coordinator ☑ Other _____

Please add me to the Project contact list ☐

Comments:

To bring it back to it's ~~next~~ natural state, we did not have a containment cell.
What respect have you as a working group done to show ~~res~~ ~~that~~ ~~respect~~ respect the land and water through ceremony?
Have you reached out for your tobacco and asked what our ancestors want? Instead of what government wants?
Will their is a will their is a way to make the best of everything happen no more short cuts and being treated second class.

Please submit comments by January 3, 2020:

Submit a comment on the website
boatharbour@novascotia.ca

Mail Us
PO Box 397, Stn Central
Halifax, NS B3J 2P8

Email Us
boatharbour@novascotia.ca

OR

Submit a comment to the Community Liaison Coordinator

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COMMENT FORM
Boat Harbour Remediation Project
PLFN Open House – December 9, 2019

Name: _____

Address: Pictou Landing First Nation **Telephone:** _____

E-mail Address: _____

How did you hear about this event?

☐ Letter/E-mail ☐ Community Liaison Coordinator ☐ Other _____

Please add me to the Project contact list ☐

Comments:

- Didn't consider PLFN's suffering.
- doesn't help the trust.
- he was a guest

- Very disappointed with Jim Williams who sat on the Boat Harbour Environmental Advisory Committee..

- Can the project description be rejected considering lots of PLFN band & community members don't want it?
- If so, how long will it take for a new project description? and to go through that process?

A lot of community members feel as if we weren't consulted on other options...
Just told that why other alternatives can't be an option.

Also during this session you said the vegetation isn't affected but from an L'nu' (mi'kmaq) perspective it is. The water is contaminated, to us all of Boat Harbour is affected because of the contaminated water. And because we haven't been able to use it the way creator intended for us to use

Please submit comments by January 3, 2020:

Submit a comment on the website
boatharbour@novascotia.ca

Mail Us
PO Box 397, Stn Central
Halifax, NS B3J 2P8

Email Us
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COMMENT FORM
Boat Harbour Remediation Project
PLFN Open House – December 9, 2019

Name: _____

Address: _____ **Telephone:** _____

E-mail Address: _____

How did you hear about this event?

☐ Letter/E-mail ☐ Community Liaison Coordinator ☐ Other _____

Please add me to the Project contact list ☐

Comments:

How do we go about getting Approval For Another Containment Cell Somewhere else and using this Plan For temporary storage, Move it later After Another Cell is Approved

Please submit comments by January 3, 2020:

Submit a comment on the website
boatharbour@novascotia.ca

Mail Us
PO Box 397, Stn Central
Halifax, NS B3J 2P8

Email Us
boatharbour@novascotia.ca

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