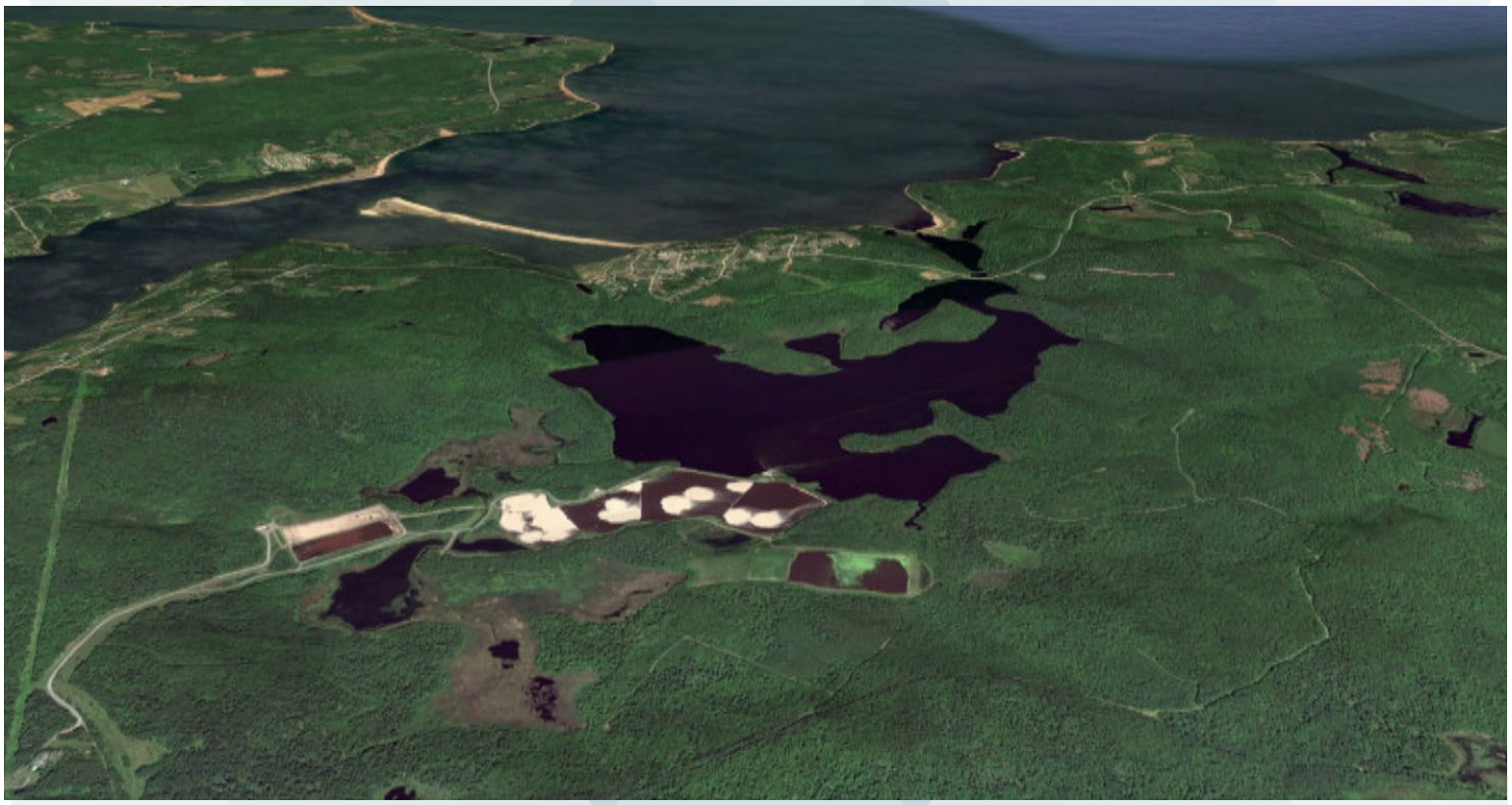
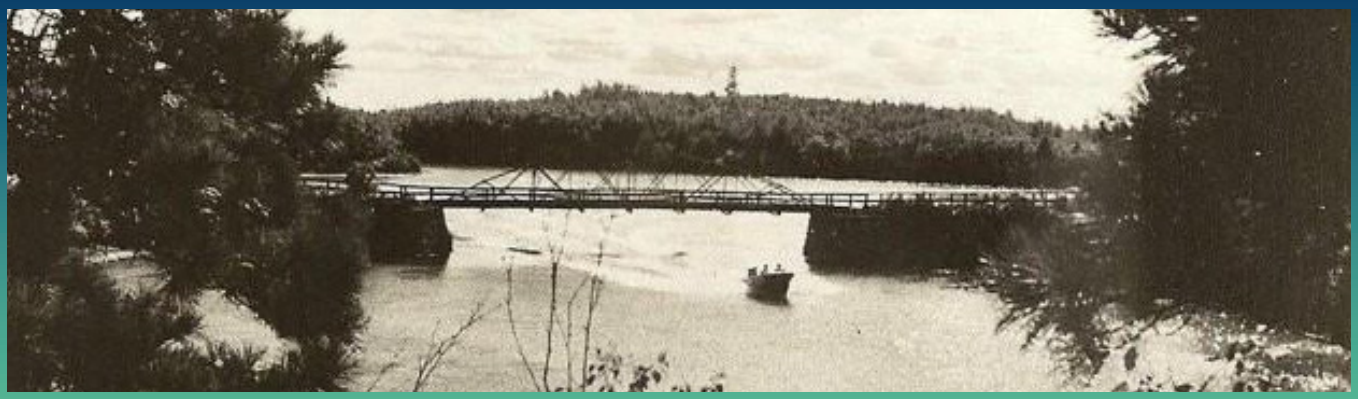
Boat Harbour Remediation Project

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 piteweyaqsi'l 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 wejitk Kwesawe'k Pqa'wi'kank (Abercrombie Point) Palpu'tey Mulin. Kisitasikek ewe'wasikip paqtapa'q wjit etl-mawta'sikaqq maliaptmumk mjikapu wejitk mulink. Mu nuku' kis-we'wmi'tiksip 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'siaewaq 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-pituimtlnaqn (1,000,000) metres etek plkow aqq kejapu – tepiaq wjua'tu'n newiskimtlnaqn (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 kisna 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?

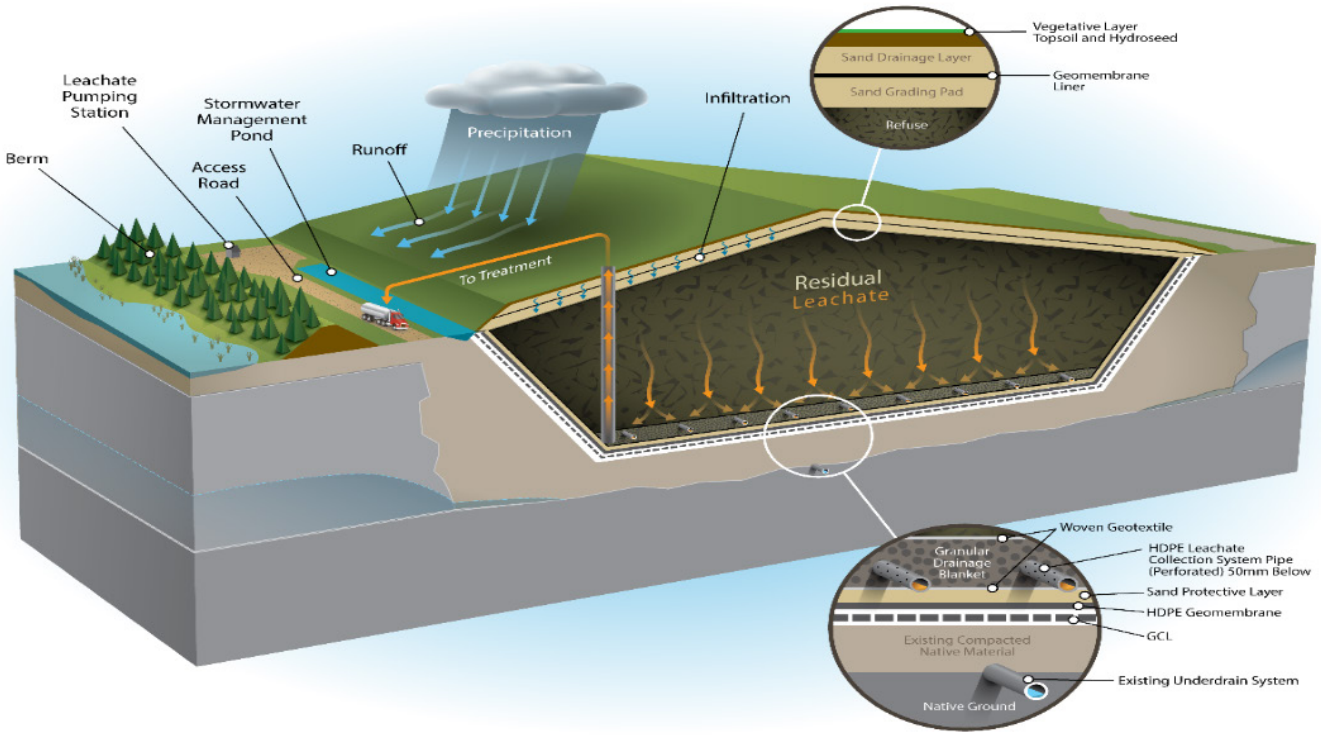
Our plan is to remove the sludge from the bottom of Boat Harbour, using a dredge that will sit on a barge, and pump the sludge through a pipe to the existing containment cell on the site. In some cases, close to the shore or in the wetlands, we may use land-based heavy equipment to dig up the sludge 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 kisna 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 wejitk 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' ankua'tuek, ika'tten pituweka'tasik aqq ta'n etl-mawo'tumk mjikapu wejitk. 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 Piktukewaq 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?

Poqji-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 piwiaq – ta'n kisita'sultiek tl-waqma'tunen piwiaq 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 wejiaq 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-mknujik 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 sespite'tmoq 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 Piktukewaq 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 tapuiskimtlnaqn (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 kisna mjike'jl kis-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 tapaqnn pemita'ql, mu tli-ksikawita'qtn, aqq mu tlta'qtn wen wutapaqn 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 kisna 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 wasoqmaqn 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'lkl Elukutimkl ta'n nike' kejitasikl

Ta'n tujiw wesku'tasik weskittek sam'qwan na wesku'tasikl jipu'ji'jl aqq sipu'l. Weskittek sam'qwan ta'n telamu'k aqq ta'n tel-temik kisi-ajkna'lukutew mjikapu ta'n wejiaq etl-lukutimk, kisna kutajuik mjikapu. Ta'n etl-lukutimk na etek koqoey winjik toqo mu menuekewek 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 kelu'lk sam'qwan etek. Tel-we'tua'tumk Wksitqamuey nkutey enqa'toq kejapu aqq pilue'l maw-klu'lkl elukutimkl apoqnmattew waqmo'tmnew weskittekewey sam'qwan. Na't-koqoey tlitpiaq toqo liaq winjik ta'n etek kelu'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 kisna wsipekiaq, kisna kis-tla'lukutew elukutijik etlitasik Asumkwaqn Awti 348.

Maw Klu'lkl 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'taqnik aqq nike' 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 nike'. Aqq elt se'k wejita'jik waisisk kisna 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 kisna lukewinu'k etl-lukutijik. Se'k wejita'jik waisisk kisna 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 Aknutmaqn wejiaq Panqamika'tumkl Sa'qewe'l Koqoe'l

Nuji-panqamika'tu'tij Sa'qewey Koqoey telimuksiekipnik etekl kejitasikl aqq me' mna'q we'jitasinukl keknue'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 aknutmaqn wjit Sa'qewey Koqoey. Kisite'tasikip naqa'ten lukwaqn aqq kinua'tua'teketen elmiaq we'jitasik sa'qewey koqoey kisna wutqutaqnn.

Tl-we'tua'lukwi'titew Mi'kmaq Wikultijik No'pa Sko'sia

Pipanuijkaqn wjit Mi'kmawey Kjijitaqn wjit Wsitqamuey (A Mi'kmaq Ecological Knowledge Study (MEKS)) kisa'tumkis Etl-lukutimk aqq kiwto'qiw. Ula pipanuijkaqn we'jitu'tis Mi'kmaq ewe'wmi'tis ula maqamikew aqq koqoey wejiaq maqamikew-iktuk aqq etli-netuklimkis wejkwa'taqnik. Me' kiskuk ewe'wasik loqte'knikaluj waisisk wjit ankuowey. Wejkwa'taqnik 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-kjijtaqn 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. Piktukewaq 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 piteweyaqsi'l 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 nike' 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 assuayjo'tekekl 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.