



# Soil Remediation Project

## Information Package for NFN Residents

### Background

Work resumed on the Soil Remediation Project in April 2024 in preparation to remove niobium ore tailings from the Nova Beaucage processing mill that operated for seven months in 1956 in Yellek.

The ore tailings from the mill were deposited at the mill site and the former gravel borrow pit north of Highway 17 (next to the Anishinabek Nation head office), now owned by the Ontario Ministry of Transportation (MTO).

The material was later used to construct roadbeds, spread locally via grading activities around the site, and used as fill at private residences throughout the 1970s and 1980s. All these residences were identified during the initial investigations and are part of the remediation plan.

NFN advocated for over 25 years to address these irresponsible historic actions that left scars of contamination on lands that were then given back to us by the government without any remediation. When NFN was developing its Land Code, the contaminated sites were included in an Individual Agreement between NFN and Indigenous Services Canada (ISC) to secure funding for the clean-up.

In 2015, the MTO committed to NFN and ISC that the ministry would clean up its site in collaboration with NFN and ISC.

The estimated cost of the project is \$12.8 million, with \$4.6 million for the MTO portion (35%) and \$8.2 million for the NFN portion (65%). A cost-sharing agreement is in place with ISC to fund the NFN portion of the work.

NFN's involvement in the project has ensured that all health and safety protocols are in place. Having our Nipissing Miller construction company complete the work gives NFN control and oversight to ensure all health and safety protocols are followed to protect the community. Three experienced environmental engineering firms (WSP, EXP and QM) are supervising and monitoring the work. NFN's Environment Manager is also involved in the project and is satisfied with the health and safety measures, as well as the monitoring techniques, that have been implemented.

### What is Niobium?

The niobium tailings are considered a Naturally Occurring Radioactive Material (NORM), which is defined as follows by the Canadian Nuclear Safety Commission:

*NORM is material found in the environment that contains radioactive elements of natural origin. NORM primarily contains uranium and thorium (elements that also release radium and radon gas once they begin to decay) and potassium.*

NORM material will be removed to rehabilitate the sites for future use, including placing topsoil and seeding to restore them to a natural state.

## Are the tailings harmful to human health and to fish and wildlife?

The Ministry completed a Human Health Risk Assessment in 2012 to determine the potential health impacts of the rock tailings and associated naturally occurring radioactive material (NORM).

The study concluded that the risks of the tailings to human health were low. The assessment also determined that the tailings are not harmful to fish and wildlife in the area as they do not consume rock material.

Further, testing of vegetation has shown no uptake of the contamination from the soil. There are no potential health impacts for consuming fish and wildlife in the vicinity of the tailings area.

## If there's no risk to human health, why are the workers wearing protective equipment?

Workers are required to wear personal protective equipment (PPE), including disposable coveralls, gloves and masks, to protect them from radiation exposure while handling the material directly, and to ensure that they don't carry any contaminated material outside of the controlled work areas on their own clothing.

All workers are scanned after removing their disposable PPE to ensure that they are clear of contaminated soil. The masks are intended for respiratory reasons in case the material becomes airborne through handling it directly. Airborne monitoring is in place at all times on all job sites.

All workers on site have received extensive training prior to working on the sites and are outfitted with dosimeters to monitor any potential exposure.

## What are the environmental risks associated with the removal of the contaminated soil? Is the community at risk?

The Ministry advises that there are no health and safety risks to the community from undertaking the clean-up.

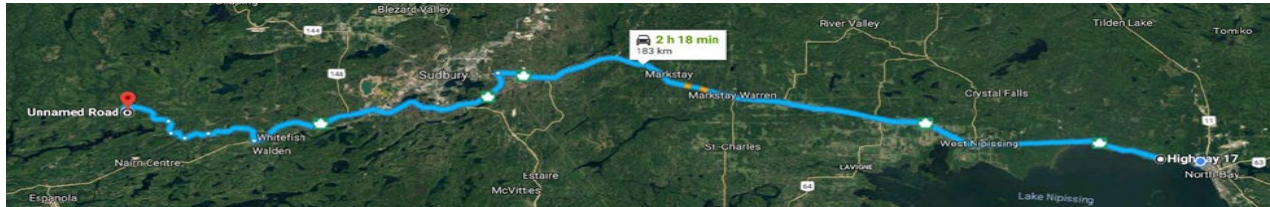
Environmental health and safety provisions in the contract include but are not limited to health and safety plans for each site, dust management plans (including airborne monitoring), and soils management plans with qualified professionals supervising the work in accordance with protection measures.

Three environmental engineering firms (WSP, EXP & QM) are overseeing the work, along with a Qualified Person (QP) hired by the MTO supervising the work in accordance with protection measures and ensuring that all contaminated soil is removed. The project team also includes a Health & Safety Manager, a Radiation Safety Officer and a Radiation Protection Technician.

The naturally occurring radiation is low level and the excavated material will be carefully contained during transport. All trucks transporting the material have been outfitted with specialized tarps to securely contain material to the box. Trucks will be scanned and inspected to ensure the truck box is tightly closed, gate locks are engaged, and tarps are securely in place. No vehicle will be released from the site until it is deemed to meet acceptable limits.

## Where will the contaminated soil be disposed?

In 2016, a potential disposal location was identified at the Agnew Lake Tailings Management Area (ALTMA) northwest of Sudbury, which currently holds radioactive uranium waste. The low-level radioactive waste coming from the niobium mill on NFN would be used to increase the existing cover thickness at the ALTMA, reducing the overall radioactive exposure of the existing uranium tailings.



## Current Status

Remediation of four residential properties on NFN started in mid-July, along with work to remove contaminated material from the old Nova Beaucage Road allowance. The material excavated from these sites is currently being stored on a vacant lot in the Bineshii Business Park that has been lined with geotextile\* matting to safely contain it.

The Ministry of Mines is waiting for approval from the Canadian Nuclear Safety Commission (CNSC) to haul the contaminated material from NFN to the Agnew Lake Tailings Management Area (ALTMA). The ALTMA is a federally regulated site that is managed by the Ministry of Mines while the Canadian Nuclear Safety Commission regulates the site by closely monitoring the maintenance and environmental performance.

CNSC is still reviewing the planned construction operations at the Agnew Lake Tailings Management Area in accordance with the existing Waste Nuclear Substance Licence. The MTO is working to identify an alternative disposal site in case approvals for the ALTMA site are delayed or denied.

\* Geotextile fabric is a permeable textile material that serves several functions, including separating material to prevent the mixing of different soil layers and filtration by allowing water to pass through while retaining soil particles. NORM is not water soluble, meaning that it doesn't dissolve or form a solution when mixed with water. Instead, it maintains its independence and essentially floats to the top because it is less dense than water.

## Next Steps

Until approval to haul the material to the Agnew Lake Tailings Management Area or another approved site is in place, NFN has halted any further excavation and storage of the contaminated material on NFN lands.

Contaminated material from the former mill site and the MTO borrow pit next to the Anishinabek Nation remains untouched – only site preparation activities have been completed.

## Public Information Session & Private Meetings with Residents

We will be holding another community information session on **Monday, October 7** from **6pm-8pm** at the **Nbisiing Secondary School Gym**. Members of the project team and technical staff will be in attendance to provide more information and to answer questions from community members.

**If you would like to schedule a private meeting** at your home, at the Duchesnay Hall, or at the Administration Office to ask questions and/or discuss concerns, please contact the Community Infrastructure Department at (705) 753-2050 ext. 1285.

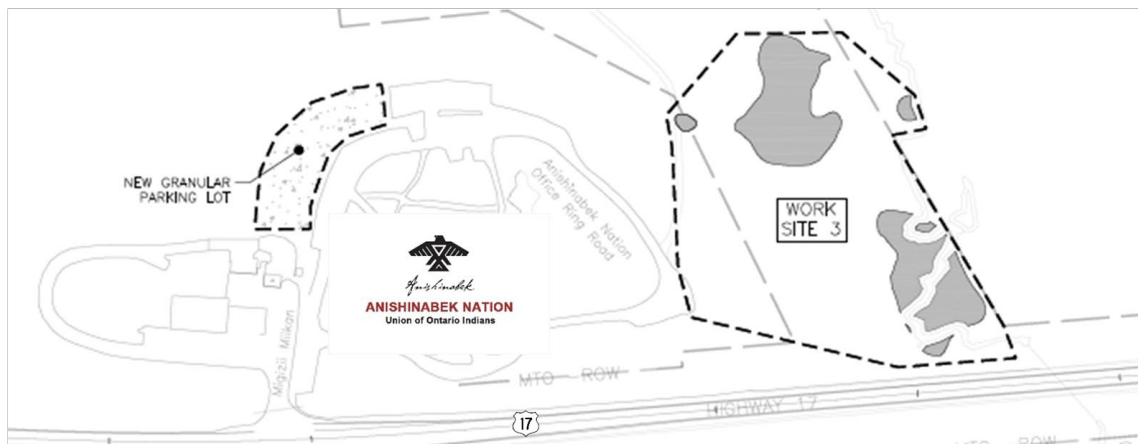
A list of project contacts is provided on the next page.

## NFN Work Sites

- **Site #1:** Former Nova Beaucage Mine Site – 15,539 tonnes of material to be removed, along with concrete pad foundation.
- **Site #2:** Section of Nova Beaucage Road at the corner of Ernest Avenue (18 tonnes) and the old Nova Beaucage Road allowance (7,080 tonnes).



- **Site #3:** MTO Lands east of Anishinabek Nation head office (11,409 tonnes).



## Contacts

Should you have any questions or concerns related to the work taking place on Nipissing First Nation, please call:

### **For project operations and progress updates:**

Bruce McLeod	Gen Couchie
Special Projects Manager	Business Operations Manager
705-498-2520	705-471-1545

### **For project background and environmental concerns:**

Cathy McLeod	Curtis Avery
Land Manager	Environment Manager
705-753-2922 ext. 1233	705-753-2922 ext. 1290

### **For health and safety concerns:**

Ray Alatalo, B.A.A. (Envir. Health), C.P.H.I. (C)  
Environmental Public Health Officer for Indigenous Services Canada  
705-698-4682

**All other inquiries should be directed to [NEConstruction@ontario.ca](mailto:NEConstruction@ontario.ca) or [projectinfo@nfn.ca](mailto:projectinfo@nfn.ca).**

For more resources and fact sheets about Naturally Occurring Radioactive Material (NORM), please visit the [Canadian Nuclear Safety Commission's website](#).