

DECOMMISSIONED

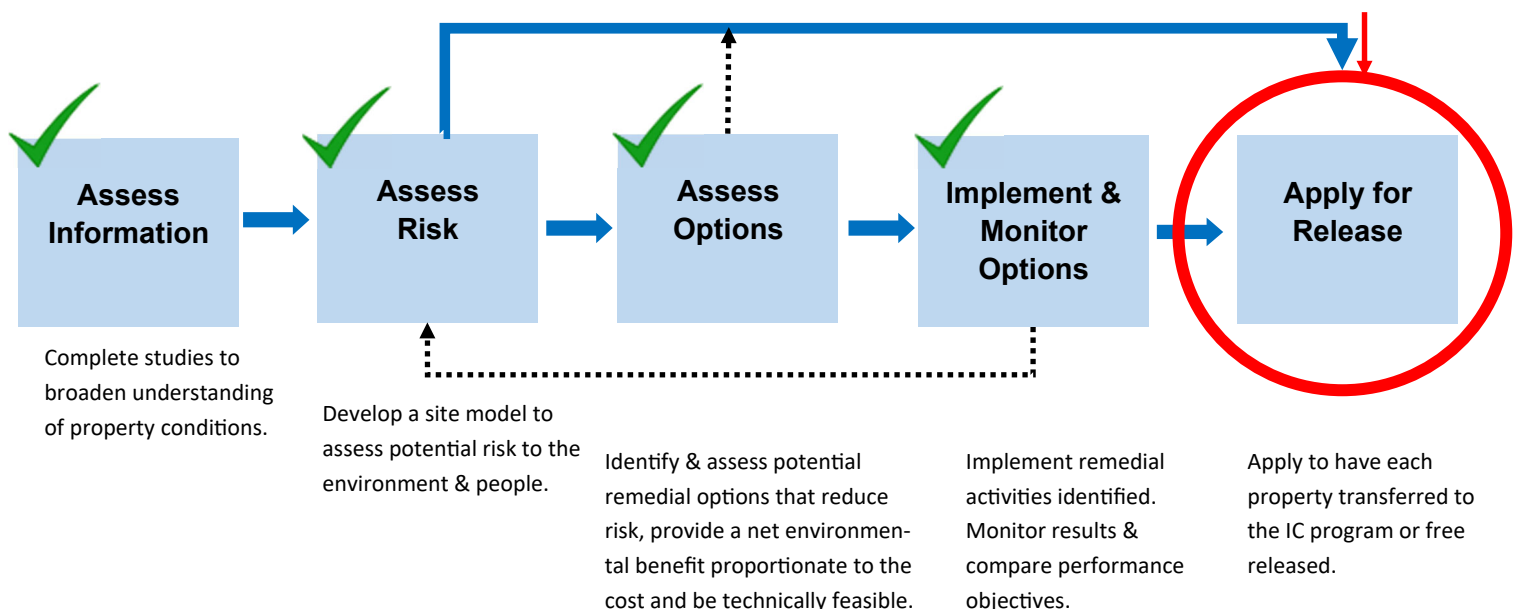
BEAVERLODGE PROPERTIES



The decommissioned Beaverlodge uranium mine/mill site and associated properties in the Uranium City area were operated by Eldorado Mining and Refining Limited between 1952 and 1982. From 1982 to 1985 the site was decommissioned and reclaimed to standards approved by federal and provincial regulators. Beaverlodge was the first Canadian uranium mining operation to be formally decommissioned. In 1988, Eldorado merged with the Saskatchewan Mining Development Corporation to form Cameco Corporation. At that time, the management of the properties became the responsibility of Cameco, while the Government of Canada retained financial responsibility. Cameco has followed the Beaverlodge Management Framework in preparing the properties for transfer to the IC Program by carrying out routine environmental monitoring, targeted environmental investigations and remediation, maintenance work, and community engagement on the 70 separate decommissioned properties that originally made up the Beaverlodge site. Of the 70 properties, 43 have been released from licensing by the Canadian Nuclear Safety Commission (CNSC) making them eligible for transfer to the IC Program, leaving 27 properties remaining (see map on next page).



BEAVERLODGE MANAGEMENT FRAMEWORK

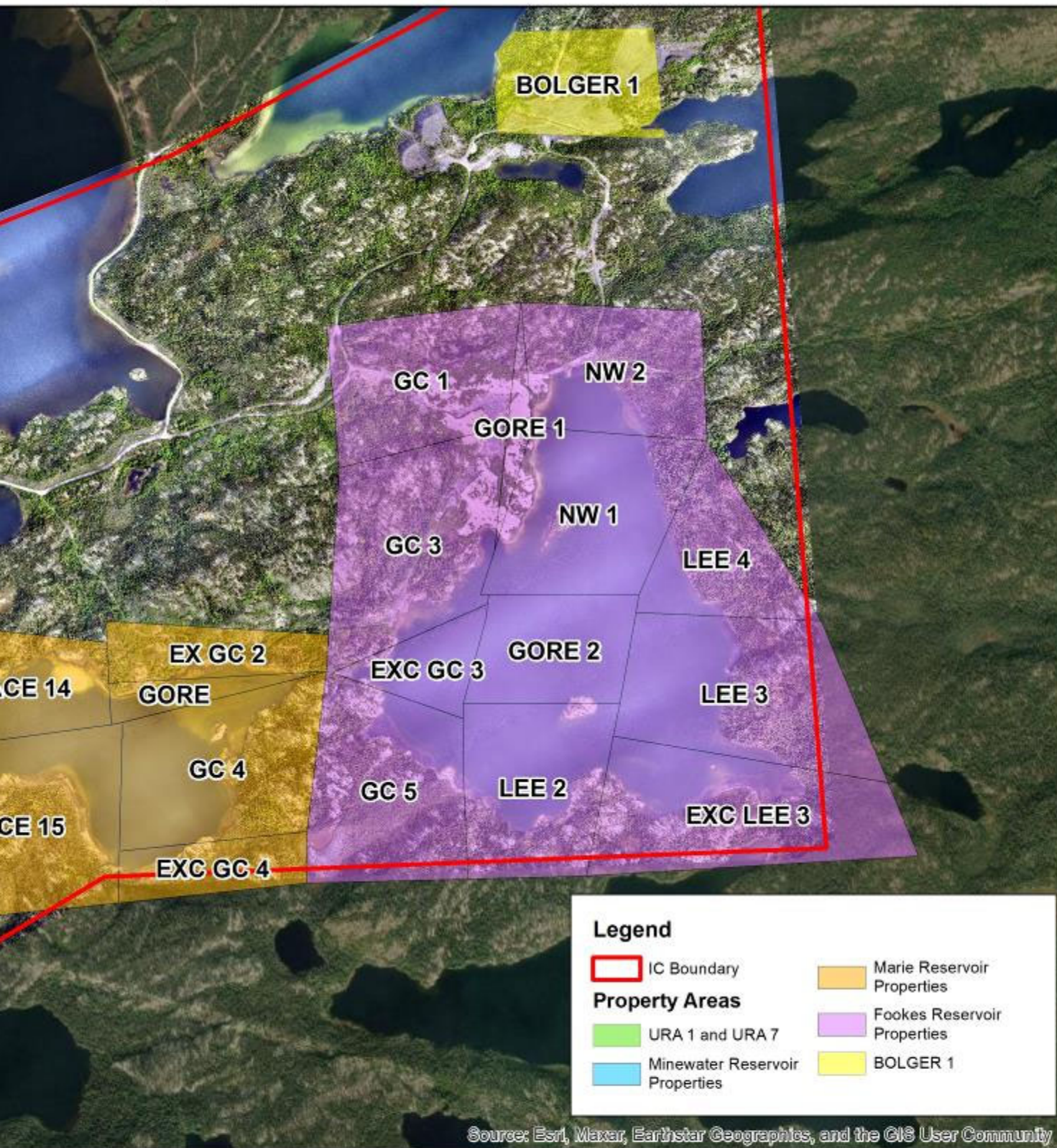


Outline of Remaining Beaverlodge Property Boundaries and Proposed I



0 0.25 0.5 1 Kilometers

IC Boundary



SASKATCHEWAN INSTITUTIONAL CONTROL (IC) PROGRAM

The Saskatchewan IC Program addresses all aspects of conventional closed mines, as well as the uranium-specific issues of radioactive waste management.

The IC program is run by the Government of Saskatchewan and is intended to provide long-term monitoring and maintenance. A property will not be accepted into the program until remediation activities are completed and the relevant regulatory authorities have issued a release. Properties transferred will continue to support traditional activities such as hunting.

2009

5 Properties transferred to IC



2020

19 Properties transferred to IC, 1 free-released



2023

18 Properties transferred to IC



This image shows a stainless steel cap that ensures this opening is safe and secure.

MONITORING UNDER IC

Once in the IC Program the Province of Saskatchewan will ensure long-term monitoring and maintenance of the properties. Funding for ongoing monitoring and maintenance as well as unforeseen events is provided up front by the former site holder.

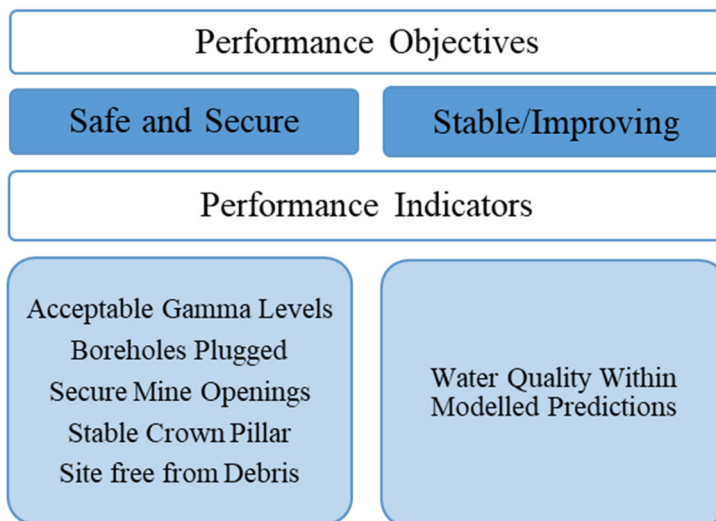
The IC program ensures that these properties will not be forgotten about once they are released from Cameco's license.

The monitoring will ensure that the properties continue to behave as expected and ensure that they remain physically and radiologically safe, secure, and stable/improving.

PERFORMANCE INDICATORS AND OBJECTIVES

Safe – site is safe for unrestricted public access. This objective is to ensure that the long-term safety is maintained.

Secure – must be confident that long-term risks to public health and safety have been assessed by qualified person and are acceptable.



Stable/Improving – Environmental conditions (e.g. water quality) on and downstream of the decommissioned properties are stable and continue to naturally recover as predicted.

Performance Indicators	Description	Acceptance Criteria
Acceptable Gamma Levels	Cameco will complete a site-wide gamma survey that will indicate where additional material may need to be applied to cover existing waste rock or tailings. Following the application of the cover material, a final survey will be completed of the remediated areas verifying that the cover was adequate.	Reasonable use scenario demonstrating gamma levels at the site are acceptable.
Boreholes Plugged	Cameco will plug all identified boreholes on the site to prevent groundwater outflow to the surface.	All boreholes have been sealed.
Stable Mine Openings	The current concrete caps on the vertical mine openings will be replaced with new engineered caps with established designs to improve the long-term safety of the site, where applicable.	Mine openings have been secured and signed off by a qualified person, where applicable.
Stable Crown Pillar	Based on the surface subsidence in the Lower Ace Creek area, a crown pillar assessment will be completed for the four areas that have mine workings close to surface, specifically Hab, Dubyna, Bolger/Verna, and Lower Ace Creek.	Crown pillar assessed, remediated (if required), and signed off by a qualified person.
Site free from Debris	Inspection and removal of any residual debris will be completed prior to exempting the properties from CNSC licensing and accepting them into the provincial IC program.	Site free of former mining debris at the time of transfer to IC program.
Water Quality Within Modelled Predictions	Trends established from past and future water monitoring will be compared to modelled predictions to verify: <ol style="list-style-type: none"> 1. That remedial options expected to result in localized improvements are having the desired effects; and 2. That natural recovery on and downstream of the decommissioned properties is continuing as predicted. 	Water quality is stable/improving.

MONITORING PLAN FOR THE IC PROGRAM

In preparation for the final release of the remaining properties, Cameco developed a monitoring program to be implemented as part of the IC Program. This included the development of a physical inspection program as well as a fish and water monitoring program. Implementation of these programs will be the responsibility of the government of Saskatchewan once the properties have been transferred to the IC Program.

BEAVERLODGE INSTITUTIONAL CONTROL INSPECTION FIELD GUIDE (ICIFG)

The Beaverlodge ICIFG was developed to support the ongoing inspection of the physical aspects of the former Beaverlodge properties once they have been transferred to the IC Program and managed by SkMER.



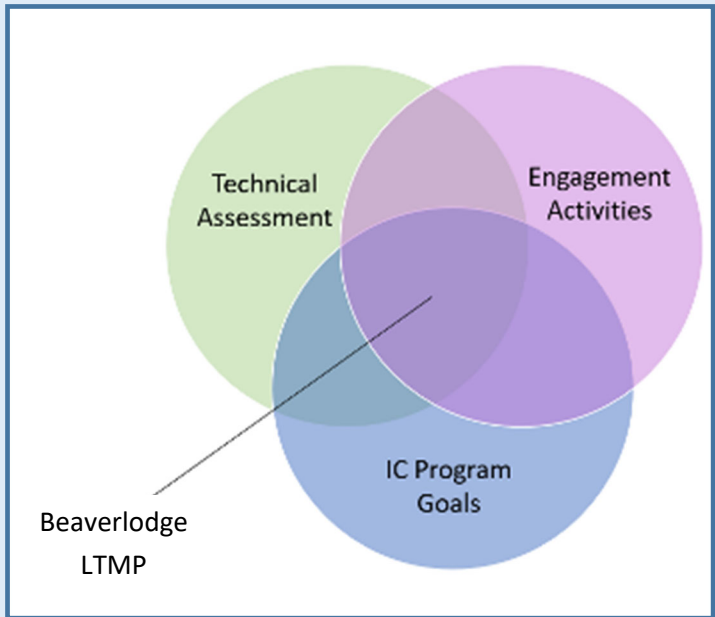
The ICIFG provides a description of the former Beaverlodge properties and identifies the physical aspects on the properties that will require continued inspection once properties have been transferred to the IC Program. As part of the ICIFG, a checklist was developed to ensure all relevant aspects currently monitored were captured in a consistent and thorough manner.

The development of the program considered numerous sources. The sources evaluated included an example of a relevant (non-Beaverlodge) inspection plan that has been proposed for to the IC Program, past Beaverlodge closure reports, commitments agreed to in CNSC Beaverlodge Commission Member Documents and Record of Decisions, previous IC inspection reports assessing the former Beaverlodge properties, and current regulatory inspections.



BEAVERLODGE LONG-TERM MONITORING PROGRAM

A long-term monitoring program (LTMP) to evaluate fish and water quality on and downstream of the former Beaverlodge properties was developed in 2023 and provided to SkMER. This included a technical evaluation of more than 40 years of monitoring data to support the development of a program to monitor long-term trends in surface water and fish quality after all the Beaverlodge properties have been released to the IC Program. The objectives of the evaluation were to define monitoring that would confirm long-term water quality trends continue with natural recovery, as expected, and provide information to support the eventual removal of the healthy fish consumption guideline and drinking water advisories. The development of the LTMP also included feedback received from



local communities, rights-holders and other stakeholders gathered during engagement activities regarding sample locations, as well as the type and frequency of monitoring data to be gathered. As well, the evaluation considered the goals of the IC Program: (1) protect human health and safety, (2) protect the environment, (3) ensure future generations are not burdened with the costs of long-term monitoring and maintenance for current mining development, (4) be sustainable, and (5) recognize federal jurisdiction regulatory roles and responsibilities for national and international obligations.

LTMP Summary

Sampling program component and Locations	Objective	Frequency	Comments
Surface Water			
Ace Creek Watershed (AN-5, DB-6, AC-6A, AC-14)	Confirm that the trends in water quality are recovering, consistent with the 2020 ERA predictions	Every 3 years initially ^b	Opportunity to decrease frequency after 15 years to sampling every 5 years. ^b Opportunity to decrease frequency after another 15 years to sampling every 10 years. ^b
Fulton Creek Watershed (TL-3, TL-4, TL-7, TL-9) ^a			
Beaverlodge Lake and Downstream (BL-5, ML-1, CS-1, CS-2)			
Fish			
Beaverlodge, Martin, and Cinch Lakes	Support the removal of the healthy fish consumption guideline	Every 10 years	Discontinue after healthy fish consumption guideline removed for Beaverlodge, Martin, and Cinch lakes

Notes:

^a Conclude upstream Fulton Creek Watershed stations (i.e., TL-3, TL-4, and TL-7) after 15 years if recovering as predicted.

^b Program frequency consistent with the surface water program for the Cluff Lake Mine Site for management within the IC Program.

COUNTRY FOODS/LAND USE STUDY (2011/2012)

The country foods study was conducted by a third party First Nations owned company Canada North Environmental Services Ltd. (CanNorth) and involved surveying Uranium City and Camsell Portage residents, as well as analyzing food samples submitted by local stakeholders. Residents were asked what country foods they consumed, how much, and where they harvested from.

All samples were either collected or submitted directly by, or with the assistance of, Uranium City or Camsell Portage residents during their traditional hunting and gathering activities.

Types of samples collected were: blueberry, bog cranberry, raspberry, Labrador tea, snowshoe hare, spruce grouse, moose (and organs), and fish (northern pike and lake whitefish).



The samples were submitted by CanNorth to the Saskatchewan Research Council (SRC) for analysis of the following parameters:

Parameters

Metals	Aluminum, Barium, Boron, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury (fish only), Molybdenum, Nickel, Selenium, Silver, Thallium, Tin, Titanium, Uranium, and Zinc
Radionuclides	Lead-210, Polonium-210, Thorium-230, Radium-226
Trace Elements	Antimony, Arsenic, Beryllium, Cobalt, Strontium, Vanadium

FINDINGS

Results found that traditional harvesting of country foods and consuming those foods **does not present health risks** to Uranium City and Camsell Portage residents.



EASTERN ATHABASCA REGIONAL MONITORING PROGRAM (EARMP)

EARMP monitors potential cumulative effects downstream of uranium mining and milling operations in northern Saskatchewan. EARMP was developed to establish baseline conditions and facilitate the examination of spatial and temporal changes long-term.

In 2022, a summary report was published detailing the results of the program from 2011 to 2021. During that time, the EARMP collected and tested over 850 water and traditional food

samples from the Athabasca Region. Results indicate that the measured concentrations in the samples are similar to baseline levels and the regional reference range, and those used in the 2018 Human Health Risk Assessment. Results from 10 years of sampling have consistently demonstrated that water and traditional foods remain safe for consumption, and that they continue to be a safe and healthy dietary choice for residents of the Athabasca Basin. The 10-year summary report, annual reports, and data from the programs conducted to date are publicly available at www.earmp.ca. EARMP regularly collects samples from Uranium City and Camsell Portage for analysis. Results can be found here: www.earmp.ca/reports. Past results have found that food is safe to consume and water is safe to drink.



COMMUNITY BASED ENVIRONMENTAL MONITORING PROGRAM (CBEMP)

The CBEMP aims to be a co-learning process that promotes shared knowledge, skills, and engagement with the community. It provides an opportunity for community members to become involved in the program by participating in interviews and sampling traditional foods that they consume for testing. The CBEMP is founded on community members' shared knowledge and engagement. Past CBEMP studies in Fond du Lac, Black Lake and Stony Rapids, and Hatchet Lake and Wollaston Post have found that the food is safe to consume and the water is safe to drink.

Finalized in 2023, the Uranium City and Camsell Portage CBEMP report also found that traditional foods and water sampled from locations selected by local residents were safe for consumption. The report also included several recommendations, namely avoiding the use of lead shot, that community members follow the healthy fish consumption guideline for Beaverlodge, Martin and Cinch Lakes, and that community members should not consume fish or drink water from Nero, Marie, Meadow, Minewater, and Greer lakes and from lower Ace Creek between Ace and Beaverlodge lakes.

DID YOU KNOW?

Gathering and eating traditional foods can help reduce the risk of diabetes, heart disease, and obesity, especially when the foods are cooked in traditional ways.

Fish are an important part of a healthy diet containing high-quality protein, Vitamin B, Vitamin D, omega-3 fatty acids, other essential nutrients.

Wild meat is a good source of protein that is low in saturated fat and is an important source of minerals, vitamins, and iron.

Health Canada created a tailored First Nations, Inuit, and Métis Food Guide that includes both traditional foods and store-bought foods (<https://www.canada.ca/en/health-canada.html>).

HUNTING, FISHING, TRAPPING & GATHERING

Is good for physical health and social well-being.

COMMUNITY-BASED ENVIRONMENTAL MONITORING PROGRAM

Results of the 2020 traditional foods study indicate that chemicals in traditional foods were generally low and within the range for the region, and are not of concern for the community.

For more information or to request a copy of the report please talk to your local AJES representative.

We would like to thank Darlene Gozandiere, Juanita Hansen, Adam Banonie, and George St. Pierre for all their hard work on the project!

MARCI CHO!

This project was managed by **COMBATS**, a not-for-profit environmental services company.

FOLLOW US ON

Proud partners: **orano**

In 2016, the Ya'athi Néné Collaboration Agreement brought together seven Athabasca Basin communities, Cameco Corporation, and Orano Canada. Within the new agreement a commitment was made to sustain and enhance the community-based environmental monitoring program (CBEMP).

The 2020 CBEMP took place in Wollaston Lake and Hatchet Lake Denesuline First Nation with a traditional food study. The study focused on collecting information from community members on the traditional foods they consume. Community members also shared information on what locations are important to them and which traditional foods should be sampled.

COMMUNITY ENGAGEMENT

Each year, a public meeting and site tour is held to discuss site activities. This meeting provides an opportunity for Cameco to engage local residents and other interested groups regarding the plan and schedule for transferring properties to the Province of Saskatchewan's Institutional Control program.

It also allows residents the opportunity to provide feedback to Cameco and regulators regarding potential concerns.

Feedback provided by local land-users regarding areas used for conducting traditional activities guided decisions around road closures and signage to be posted once the properties are transferred to the IC Program.

2024 ACTIVITIES



Gamma Assessment of Recently Disturbed Areas

- Former mill area following the application of additional cover material in 2022.
- Lower Fay Pit waste disposal site that was covered in 2023.
- The sorted waste rock pile located approximately 200 m south of the former mill site, as this material was used as coarse fill for the mill cover and the closure of the Lower Fay Pit waste disposal site.
- Culvert removal near Meadow Fen Outlet and restricted vehicle access berms near Ace Uplands and Minewater Reservoir.
- Other smaller areas where waste rock has been disturbed during remediation activities.



Road Access

- Cameco met with land users in 2023 to discuss the existing road network that provided access to the former Beaverlodge mining properties.
- Cameco will continue the discussion of road access in 2024 to ensure land users are provided opportunity to continue accessing land for traditional activities.

Signage

- Cameco also discussed with land users about signage to notify future land users where the former Beaverlodge mining properties were located. Signage will be further addressed in 2024.

THANK YOU!

**For additional resources please visit
www.beaverlodgesites.com or contact
Kristin Cuddington with Cameco at 306-956-8149 or
kristin_cuddington@cameco.com.**

