May 23, 2025 12194-431-31A25

Candace Salmon
Commission Registrar
Commission Registry
Canadian Nuclear Safety Commission
280 Slater Street, P.O. Box 1046, Station B
Ottawa, ON K1P 5S9

via email: registry-greffe@cnsc-ccsn.gc.ca

RE: Application for Renewal of the Nuclear Substances and Radiation Devices Licence NSL-W5-3151.00/2026 – Saskatchewan Research Council Gunnar Legacy Uranium Mine Site

Dear Commission Registrar,

The Saskatchewan Research Council (SRC) is applying for renewal of the Canadian Nuclear Safety Commission (CNSC) licence NSL-W5-3151.00/2026 for the Gunnar Legacy Uranium Mine ("Gunnar") for a five-year period. The current licence expires May 31, 2026.

SRC is currently in Phase 2 of the three-phase Gunnar Remediation Project (phases as defined in CNSC [2014]):

- Phase 1: Activities including continued monitoring and maintenance of the site, additional site investigation and remediation design, construction of infrastructure, and mobilization of heavy equipment.
- Phase 2: Activities related to the remediation of the site (i.e., covering of tailings areas, waste rock management, and demolition debris management).
- Phase 3: Long-term monitoring and surveillance of the site

A five-year renewal period of the Phase 2 licence will allow the completion of the following items:

1. Create as-built reports for all remediation, submit to CNSC and other relevant regulators for review, and obtain regulatory acceptance of the reports. Note that as-built reports have been submitted to CNSC and Saskatchewan Ministry of Environment for the Gunnar Main, Catchment 3, and Beaver Pond Tailings covers in November 2022.
2. Start follow-up monitoring (i.e., post-remediation) as soon as active remediation is completed to assess the performance of remediation.
3. Revise relevant management plans and submit to CNSC based on new site conditions (e.g., radiation protection plan, emergency response plan).
4. Apply for amendment of licence to Phase 3 licence and obtain Phase 3 licence from CNSC.

This application assumes that remediation activities will be completed by the time of renewal of the licence NSL-W5-3151.00/2026. Contractors' work on Site is anticipated to be completed in fall 2025.

SRC proposes to start the follow-up monitoring program as soon as possible after the completion of active remediation activities (i.e., during Phase 2 licence), monitor concomitantly to the completion of the items above, and continue monitoring once the licence is amended to Phase 3. We anticipate that follow-up monitoring will start in spring of 2026. It will be initiated using the existing follow-up monitoring program (see below). This will allow collection of long-term post-remediation monitoring data while completing Phase 2 administrative activities (e.g., submission and approval of as-built reports).

A draft follow-up monitoring program was submitted to CNSC and other stakeholders in May 2024 (included in Enclosure 1). The draft program was based on the current remediation monitoring program and post-remediation monitoring commitments presented in the Gunnar Environmental Impact Statement (EIS – SRC, 2013). The program is currently being revised to address comments received from the Saskatchewan Ministry of Environment and Ya' thi Néné Lands and Resources (at the time of this writing, no comments have been provided by CNSC other than regarding the environmental risk assessment [ERA] – paragraph below).

During a virtual meeting between SRC and CNSC staff on March 26, 2025 (SRC, 2025), CNSC staff noted that the follow-up monitoring program should be based on the results of an ERA carried out after remediation. Our proposed approach slightly differs from this recommendation. We propose that post-remediation monitoring be initiated based on the existing follow-up monitoring program dated May 2024 (that will be revised according to reviewers' comments). The monitoring program would be updated once ERA findings become available, as needed. We understand that this approach may require some correction and optimization of the follow-up sampling program based on ERA findings. However, we believe this approach would positively impact the fulfillment of the project requirements. Starting follow-up monitoring before formal transfer to the Phase 3 licence will ensure project compliance with the commitments made under the approved EIS, and, in the future, will help transferring the site to the provincial institutional control program in a timely fashion.

During the same meeting, CNSC staff noted that a post-remediation ERA is typically submitted as part of the application to amend the CNSC licence to a Phase 3 licence. As per the Gunnar EIS (SRC, 2013), SRC committed to carry out an ERA after remediation. However, SRC would like to further discuss this topic with CNSC, upon renewal of the current Phase 2 licence. Specifically, we would like to determine the timeframe to complete the ERA to best support the project goals (within project constraints) and meet CNSC requirements.

The information required for this application for renewal is enclosed. We are not requesting any additional authorizations with the current request, only for continuation of current Phase 2 activities and completion of the four items listed above.

Please advise us if CNSC anticipates that more than five years are required to complete the items above based on their current and anticipated workload and review/approval timeline.

We trust this letter meets your current requirements. Please do not hesitate to contact us with questions.

Sincerely,

David Sanscartier
Senior Engineer, Environmental Remediation
david.sanscartier@src.sk.ca
306-716-8109

CC: Dana Pandolfi and Torin Takala (CNSC)
George Bihun (Saskatchewan Ministry of Environment)
Ryan Hill, Skye Muirhead, and Gunnar Records (SRC)

References

CNSC (2014). Record of Proceedings, Including Reasons for Decision, In the Matter of Saskatchewan Research Council, Request for an Environmental Assessment and Licencing Decision for the Gunnar Remediation Project, November 6, 2014

SRC (2013). Gunnar Site Remediation Project – Environmental Impact Statement - Revised. November 2013.

SRC (2025). Virtual meeting between CNSC (Dana Pandolfi, Torin Takala, and Adrienne Ethier) and SRC (David Sanscartier, Alexey Klyashtorin, and Vince Zimmer) to discuss CNSC licence renewal and draft Gunnar follow-up monitoring program, March 26, 2025.

Enclosures

Enclosure 1: Waste Nuclear Substance Licence Renewal Requirements

Enclosure 1 - Nuclear Substance Licence Renewal Requirement

PROJECT CLEANS

CLEANUP OF ABANDONED NORTHERN SITES PROJECT

APPLICATION FOR RENEWAL OF THE NUCLEAR SUBSTANCE AND RADIATION DEVICES LICENCE NSL-W5-3151.00/2026 – SASKATCHEWAN RESEARCH COUNCIL GUNNAR LEGACY URANIUM MINE SITE

NUCLEAR SUBSTANCE LICENCE RENEWAL REQUIREMENTS

Prepared for:

SRC Publication No. 12194-431-31A25

May 2025

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- Occupational Health and Safety Program
- Quality and Training Program
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- Emergency Medical Plan (Gunnar)
- Hazardous Materials Management Plan
- Legacy Waste Management Plan
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- Radiation Protection Plan (Gunnar)
- Site Security Plan (Gunnar)
- Waste Management Plan
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1 Introduction

This document provides the information required for application for renewal of the Phase 2 CNSC licence NSL-W5-3151.00/2026 for the Gunnar Legacy Uranium Mine ("Gunnar" or the "Site").

2 Assumptions

For this application, SRC makes the following assumptions:

- Remediation of the site, including demobilization of the contractors, is completed by late fall 2025, before the expiry of the current licence and its renewal.
- After late fall 2025, SRC (or representatives) presence on site is limited to a minimum of two one-week visits to site during the field season (i.e., SRC is no longer present on site at all times during the field season).
- Infrastructure remaining at the site is limited to two trailers (shelter/office and laboratory), two sea containers (storage of equipment), and miscellaneous equipment (e.g., ATV, light duty truck). The construction camp will have been decommissioned.
- Hazardous materials stored at the site are limited to a small volume of gasoline (<300 L) and other petroleum products for use in vehicles, small generator, boat, etc. The laboratory may store small amounts of solutions, preservatives, etc.

3 Name and Address

Regulatory requirements: GN 3(1)(a) the applicant's name and business address.

SRC Response

The Saskatchewan Research Council (SRC) is managing the Gunnar Legacy Uranium Mine project on behalf of the Saskatchewan Ministry of Energy and Resources.

Address: Saskatchewan Research Council (SRC). Bay 2D, 820 51st Street East, Saskatoon, SK S7K 0X8.

4 Activities and Purpose

Regulatory requirements: GN 3(1) (b) the activity to be licensed and its purpose.

A) possess, manage, and store nuclear substances that are required for, associated with or arise from Phase 2 activities associated with the remediation of the Gunnar Legacy Uranium Mine Site, described fully in Appendix A to licence WNSL-W5-3151.00/2024.

B) possess, transfer, manage and store the nuclear substances except Category I, II and III nuclear-material as defined in section 1 of the Nuclear Security Regulations, that are required for, associated with or arise from Phases 2 and 3 of the Gunnar Remediation Project – Gunnar Legacy Uranium Mine Site (hereinafter Gunnar Site), described fully in Appendix A to this license.

SRC Response

4.1 Site Background

The Gunnar Remediation Project consists of the remediation of an abandoned uranium mine and mill in northern Saskatchewan. It was operated from 1955 to 1963 and closed in 1964 with minimal decommissioning. Uranium ore originating from the open pit and underground mines was generated. This resulted in approximately 2.5 million m^3 of waste rock and over 5 million tonnes of unconfined tailings that were directed to nearby valleys, depressions, and lakes, covering a total of over 70 hectares of land.

The purpose of the Gunnar Site Remediation Project is to reduce the risks the Gunnar Mine and Mill (the "Site") poses to the health and safety of the public and environment. The remediation objectives are:

- Containment and stabilization of the unconfined tailings and waste rock piles to minimize human health risks posed by gamma dose rates.
- Minimization of contaminants releases from the tailings and waste rock to Lake Athabasca.
- Permanent disposal of demolition wastes and hazardous materials in a manner that is environmentally sound and meets regulatory requirements.
- Remediation and contouring of the landscape in a manner that is compatible with the natural surroundings and future use of the site.
- Taking measures to ensure conventional health and safety.

The site boundary (Attachment A) remains the same.

4.2 Phase 2 - Remediation

Remediation activities (Phase 2) to achieve these objectives and to meet the regulatory requirements of the "Activities and Purpose" have been on-going since 2016, and have included:

- Completion of engineered covers over the Gunnar Main Tailings (GMT) area, Gunnar Central Tailings (GCT) area and the Beaver Pond Tailings (BPT) area.
- Covering three additional tailings areas on the shores of Langley Bay and Back Bay.
- Reshaping of the waste rock piles.
- Covering of elevated gamma areas. Elevated gamma areas are defined as areas with gamma radiation dose rates above the radiological objectives, which are as follows:
    - Objective 1: The dose rates from gamma radiation exposure averaged over a hectare of the covered area not to exceed 1 µSv/h above local background (i.e., 1.14 µSv/h), and
    - Objective 2: The dose rates from gamma radiation exposure at any point of the covered area shall not exceed 2 µSv/h above local background (i.e., 2.64 µSv/h).
- Seeding of completed covers.
- Demolition of buildings and structures including abatement of asbestos-containing materials.
- Legacy waste sweep throughout the Site.
- Disposal of hazardous and non-hazardous waste in on-site engineered landfills or off-site as appropriate.

- Construction of the historical drainage channel through the waste rock piles.

Nuclear substances have not been removed from the Site.

This work has been reported in the following documents submitted to CNSC:

- Tailings as-built reports:
    - Gunnar Main Tailings As-built Report.
    - Catchment 3 As-built Report.
    - Beaver Pond As-built Report.
- SRC's Gunnar Mine and Mill Site Remediation Annual Reports from 2016 to 2024.

Remaining Phase 2 Scope

Phase 2 activities remaining at the Site include:

- Completion of the cover on the Langley Bay Tailings (LBT) area (approx. 70% complete).
- Completion of GCT and LBT channels (minor areas remain).
- Covering minor elevated gamma areas throughout the Site.
- Construction of the Gunnar Pit Outlet channel and weir.
- Installation of a weir in the Beaver Pond channel.
- Reclamation of borrow areas and haul roads.
- Decommissioning of the camp and regrading the area.
- Closure of Landfill A (non-hazardous waste landfill).
- Preparation and submission of as-built reports.

For the remaining activities, the nuclear substances found on site that have not been addressed by remediation to date (LBT area tailings and waste rock with elevated gamma radiation) will be covered with local material. Some nuclear substances may be removed from one location at the Site and consolidated into another location prior to being covered. For example, elevated gamma material may be removed from the GCT channel and placed onto the LBT area as per design. Drill cuttings from installation of groundwater monitoring wells in the tailings will be placed over the tailings in LBT and covered. Nuclear substances will not be removed from the Site.

4.3 Phase 3 – Long-term Monitoring and Surveillance

SRC submitted a draft follow-up monitoring program to CNSC and other stakeholders in May 2024 (Attachment B). The draft program was based on the current remediation monitoring program and post-remediation monitoring commitments presented in the Gunnar Environmental Impact Statement (EIS – SRC, 2013). The program is currently being revised to address comments received from the Saskatchewan Ministry of Environment and Ya' thi Néné Lands and Resources (at the time of this writing, no comments have been provided by CNSC other than regarding the environmental risk assessment [ERA] – discussed in the cover letter).

Groundwater monitoring wells were removed from the tailings and other areas prior to remediation. New wells will be installed in the tailing areas and other locations in summer 2025 to monitor groundwater quality and flow at the Site following remediation.

The revised follow-up monitoring program will be implemented by SRC starting in Spring 2026. The program will be further revised based on input from regulators and community members, as well as findings from the ERA (to be performed at a later date).

5 Management System

Regulatory requirements: **GN 3 (1)(k)** the applicant's organizational management structure insofar as it may bear on the applicant's compliance with the Act and the regulations made under the Act, including the internal allocation of functions, responsibilities, and authority.

SRC Response:

5.1 Project Organizational Chart and Roles and Responsibilities

A team of SRC specialists manages the Gunnar Mine and Mill Remediation Project to ensure project objectives are met. The project organization chart upon completion of the remediation is presented in Attachment C.

Roles and responsibilities for the project team, as well as consultants, contractors and visitors to the Site, are described in the Environmental Remediation Business Unit's management system (ERMS) that was developed to provide guidance for all work activities. Each Program or Plan within the ERMS includes specific requirements for managers, SRC supervisors, SRC employees, contractors, consultants and visitors if applicable. SRC ensures that the requirements of the ERMS are communicated to all workers as appropriate through orientation training and review cycle updates.

5.2 Management System

SRC maintains Policies and Procedures that provide consistent guidance and direction to employees in relation to health and safety, quality, and the environment. Documents are regularly reviewed to ensure continuous improvement and client satisfaction.

SRC's Environmental Remediation Business Unit manages the Gunnar Mine and Mill Remediation Project and operates under the umbrella of SRCs Policies and Procedures. The business unit developed the ERMS for all Project CLEANS sites, which provides guidance while conducting work at the Site, and is utilized for planning all activities of the Gunnar Mine and Mill Remediation Project.

The ERMS is comprised of the following programs:

- Occupational Health and Safety (OHS) Program,
- Environmental Protection Program,
- Communication Program, and
- Quality and Training Program.

Each program includes associated plans, standard operating procedures, safe work procedures, and supporting documents. The programs and select plans are attached to this application. The Occupational Health and Safety (OH&S) Program provides guidance in support of SRC's corporate OH&S policy and objectives. SRC is committed to protecting and maintaining the health and safety of all its employees, contractors and visitors. The purpose of the Environmental Protection Program is to ensure the

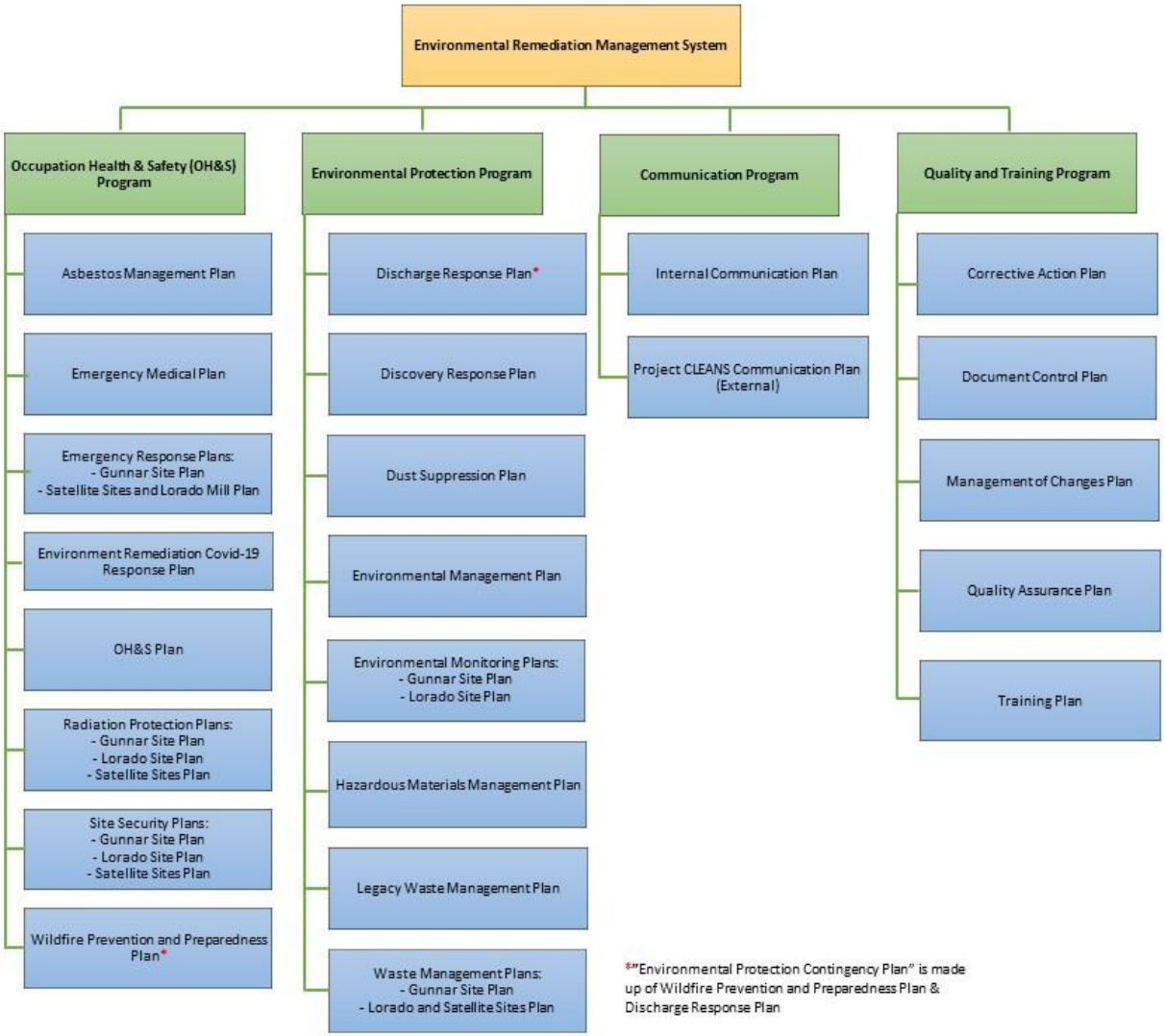
protection of the environment during all Environmental Remediation Business Unit's remediation project activities. The Communication Program outlines how the Environmental Remediation Business Unit communicates internally and with interested third parties. The program includes a commitment to and protocol for ongoing timely communication regarding activities related to projects. The Quality and Training Program outlines the process that governs how SRC ensures quality work for its remediation projects and aligns with SRCs corporate Quality Management System.

Emergency Management is covered under the OHS and Environmental Protection Programs – the plans that cover this safety control area are presented in Figure 1.

The Plans are guiding documents used to coordinate work done on the Site and undergo minor revisions (i.e., Plans do not require version control as part of the LCH). Each Plan is a stand-alone document and may have supporting documents such as forms or templates that can become the records for a section.

The ERMS documents have undergone changes over the years as the Environmental Remediation Business Unit and the project requirements changed. The ERMS, and all updates to the Gunnar-specific management system documents, have been reviewed and updated regularly as per frequency requirements specified in each document (frequency based on regulatory compliance for the Gunnar Mine and Mill remediation project).

Select plans are presented in Attachment D and all plans are available upon request. The plans submitted in this application have not been modified as remediation activities are still ongoing as of this writing. These documents will be revised as conditions at the Site change and will be submitted to CNSC at that time. For example, the emergency response plan will be adjusted to reflect that no prime contractor will be present on site after remediation is completed and the radiation protection plan will reflect the post-remediation radiation conditions at the Site and the anticipated exposure.



EnRem Safe Work Procedures:

- Air Travel
- Collecting Small Amounts of Asbestos Containing Material
- Dustfall Jar Sampling
- Explosives
- Field Work
- Movement of Asbestos Containing Material
- Operation of 12 Volt Fuel Pump
- Operation of Powered Ice Auger
- Safe use of Snowmobiles
- Transportation of Dangerous Goods
- Unknown Material Discovery
- Use of ATV/UTV
- Use of Throw Bag
- Winter Field Work
- Working Around Heavy Equipment
- Working Around Underground Openings
- Working in Canoes
- Working on Ice

EnRem Standard Operating Procedures:

- Downloading Gunnar Weather Station
- Environmental Monitoring Quality Assurance and Quality Control
- Field Check-in
- Gamma Surveys
- Groundwater Sampling
- Gunnar Food Waste Dehydrator
- Kingfisher Power Boat
- Lock Out/Tag Out
- Operation and Calibration of the YSI
- Operation of the Drone (Mavic)
- Radioactive Waste Scanning and Identification
- Replacing Radtrak Radon Detectors
- Response Escalation
- Soil Contamination Sampling
- Surface Water Sampling
- Waste Rock Sampling
- Work Hours

Figure 1: Environmental Remediation Business Unit Management system diagram.

5.3 Contractor Management System

A contractor will no longer be present at Gunnar at the time of the current licence renewal. Therefore, all activities on site will be managed under SRC's management system.

6 Operating Performance

Regulatory requirements: **NSRD 3 (1)** An application for a licence in respect of a nuclear substance or a radiation device, other than a licence to service a radiation device, shall contain the following information in addition to the information required by section 3 of the *General Nuclear Safety and Control Regulations*:

(a) the methods, procedures and equipment that will be used to carry on the activity to be licensed.

SRC Response:

The methods, procedures and equipment that will be used to carry on the licensed activities are presented below for the required aspects.

6.1 Conduct of Licensed Activity

To ensure that licensed activities are carried out adequately, SRC will carrying out the following:

- Implementation of the Radiation Protection Plan – see Section 8.
- Implementation of the Environmental Remediation Business Unit quality and training program.
- Qualified vendors will be hired through competitive procurement processes where vendors are evaluated for their qualification, expertise, experience, safety performance, and other criteria.
- The engineer of records will prepare as-built reports that will be reviewed by SRC prior to submission to regulators.
- Qualified persons (e.g., geotechnical engineers) will carry out post-remediation inspections.
- SRC will continue to employ a radiation subject matter expert who will act as radiation safety officer once the prime contractor is demobilized from site.
- All radioactive material at the site is in the intended final locations and remains on site.
- If any equipment remains on site, or is brought to site for maintenance, it will be cleaned and scanned prior to leaving the site.
- Upon completion of remediation activities, access to site will be open to the public. Signs will be installed to inform the public about fish advisory, drinking water advisory, areas where not to drive/dig, etc.
- The airstrip will be open for use by members of the public (e.g., fishing lodges in the area).

6.2 Keeping Records (Required to Carry on Activity)

SRC follows the reporting and record keeping requirements as per the General Nuclear Safety and Control Regulations (SOR/2000-202) and the Radiation Protection Regulations (SOR/2000-203) as well as any other document as referenced within the ERMS. This is described in SRC's Quality and Training

Program and applicable Plans. For example, records required to carry out activities include radiation exposure reports, gamma radiation survey data, scanning records and annual reports.

6.3 Procedures on Protecting the Environment.

The environmental protection program (attached) presents the procedures for protecting the environment during Phase 2. This program will be revised upon completion of remediation. The revised program is anticipated to include the following activities:

- Environmental sampling program described in Section 10.
- Operational monitoring carried out to ensure environmental compliance during Phase 2 activities will stop upon completion of remediation anticipated in fall 2025. Environmental monitoring and protection measures will be implemented during maintenance work.
- Erosion and sediment control measures that may still be in place upon completion of remediation (e.g., silt fences) will be monitored and maintained to protect water bodies until they are no longer needed. Such measures will be implemented during maintenance work when needed.
- Discharge response plan and managing spills.
- Waste management for hazardous waste (see Section 9).
- Only small volumes of hazardous materials will remain on site (See Section 2).

6.4 Procedures for Conducting Internal Compliance, Monitoring, Enforcement, and Verification of all Licensed Activities.

In addition to the programs, plans and procedures described above and in other sections, the procedures listed below will be implemented in spring 2026.

- Site inspection of the site at least twice per year by SRC technical staff and/or Qualified Person (e.g., geotechnical engineer) as part of the follow-up monitoring program.
- If non-compliances are observed, SRC will implement corrective actions in a timely manner.

7 Fitness for Service

Regulatory requirements: **NSRD 3(1) (h)** the proposed inspection program for the equipment and systems that will be used to carry on the activity to be licensed.

SRC response

Fitness for Service at the Gunnar Project is based on and secured by the ERMS described in Section 5, and as-built reports for the completed tailings covers submitted to CNSC to date (i.e., GMT, Beaver Pond and Catchment 3).

The inspection program for the equipment and systems will include the following components.

- Equipment inspection and maintenance logs.
- Creation of as-built drawings by Engineers-of-Records.
- Inspection by SRC or representative at least twice per year.
- Geotechnical monitoring.
- Post-remediation gamma surveys.

- Calibration of radiation measuring devices.
- Regular review of SRC management systems and revisions as needed.

8 Radiation Protection

Regulatory requirements: **GN 3(1) (e)** the proposed measures to ensure compliance with the *Radiation Protection Regulations*, the *Nuclear Security Regulations* and the *Packaging and Transport of Nuclear Substances Regulations, 2015*

SRC Response:

Radiation safety at the Gunnar Remediation Project during Phase 2 is secured under the Radiation Protection Plan (RPP) that has been developed and implemented by the Prime Contractor in conjunction with SRC. Upon completion of remediation activity, the prime contractor will demobilize from site (anticipated late fall 2025) and SRC will be responsible for radiation protection within SRC's Gunnar RPP (attached).

In line with the current CNSC Licence requirements, the purpose of the Gunnar RPP is to keep the amount of exposure to radon progeny and the effective dose and equivalent dose received by and committed to workers as low as reasonably achievable (ALARA), social and economic factors being considered, through the implementation of:

- Management control over work practices,
- Personnel qualification and training,
- Control of occupational and public exposure to radiation,
- Calibration of instruments, and
- Planning for unusual situations.

The RPP is to assist in establishing a safe work environment for all on-site workers, and to provide guidance to operations personnel with respect to anticipating, recognizing, evaluating, and controlling radiation exposures in their work environments while performing remediation activities at the Site.

The RPP includes detailed roles and responsibilities of management, hazard, and risk assessment, sets action and administration levels for radiation dose loads obtained due to remediation activities, sets the corresponding rules for ascertaining and recording radiation doses, and outlines control measures and precautions including education and training regarding radiation safety.

To ensure proper implementation of the RPP, SRC's radiation specialist regularly reviews the RPP content and implementation. The review includes an evaluation of equipment, procedures, dosimetry records, inspection findings, and incidents. A summary of the results of each annual review, including a description of actions proposed and taken is documented and discussed with SRC management. The results from RPP implementation will continue to be reported annually to CNSC as a part of SRC annual reporting.

SRC follows the reporting and record keeping requirements as per the General Nuclear Safety and Control Regulations (SOR/2000-202) and the Radiation Protection Regulations (SOR/2000-203) as well as any other document as referenced within the RPP.

Gamma radiation monitoring devices such as Ludlum dose rate meters and probes (components of the gamma survey equipment) and CT007 (field hand-held radiation detectors) are calibrated on an annual basis by qualified facilities and calibration certificates obtained. SRC performs pad calibration of Ludlum gamma survey equipment annually to determine detector sensitivity and establish conversion factors from counts per second (survey equipment output) to microSieverts per hour (µSv/h) This is done by using a specifically designed set of doped concrete pads with known radionuclide concentrations of potassium, thorium, and uranium as well as a blank pad to estimate natural background.

Upon completion of remediation activities, and in compliance with the RPP, warning signs may be mounted at key site locations to make the workers and public aware of potential radiological hazards at the Site, as needed. For example, areas of Catchment 3 that exceed radiation objectives, are risk managed as part of project (as described in SRC [2022] and approved by CNSC [2022]) may receive signs.

9 Waste Management

Regulatory requirements: **GN 3(1) (j)** the name, quantity, form, origin and volume of any radioactive waste or hazardous waste that may result from the activity to be licensed, including waste that may be stored, managed, processed, or disposed of at the site of the activity to be licensed, and the proposed method for managing and disposing of that waste.

SRC Response:

Waste management at the Gunnar Project will be carried out in accordance with the following plans:

- Discharge Response Plan
- Discovery Response Plan
- Hazardous Materials Management Plan
- Waste Management Plan (Gunnar)

All waste produced during site activities will be stored on site until it can be shipped off site for disposal. The Gunnar hazardous materials storage area will be decommissioned. Any hazardous materials will be in limited volumes within exemption limits (e.g., fuel as presented in Section 2).

10 Environmental Protection

Regulatory requirements: **GN 3(1) (i)** a description and the results of any test, analysis or calculation performed to substantiate the information included in the application.

SRC Response:

Environmental protection at the Gunnar Project includes environmental sampling and environmental compliance program. It is based on and secured by the Environmental Protection Program (Section 5). This section presents the environmental sampling while measures taken for environmental compliance is described in Section 6.3.

Upon completion of remediation activities, the environmental monitoring and sampling will be performed based on the Gunnar Follow-up Monitoring Program submitted to CNSC in May 2024

(Attachment B). This program is based on the current Gunnar Environmental Monitoring Plan and commitments made in the Gunnar EIS. The Follow-up Monitoring Program includes monitoring and sampling of:

- Weather parameters (air temperature, relative humidity, wind speed and direction, and pressure)
- Surface and groundwater
- Surface hydrology
- Radon
- Dustfall, and
- Gamma surveys.

All the environmental sampling is performed by trained SRC staff or dedicated consultants. The samples are analyzed at SRC Environmental Analytical Lab, a laboratory accredited with the Canadian Association for Laboratory Accreditation. All analytical results and other collected data are reviewed by a qualified subject matter specialists and then reported as part of the SRC Annual Reports.

The purposes of the gamma surveys are to comply with the requirements of health and safety procedures (including the RPP) and confirm achievement of the project-specific radiological objectives (described in Section 4.2). Gamma data collection and processing is performed in line with the SRC Gamma Radiation Survey Approach. The procedure and technical details including QA/QC documents are available upon request.

11 Financial Guarantee

Regulatory requirements: **GN 3(1) (l**) a description of any proposed financial guarantee relating to the activity to be licensed.

SRC Response

The Ministry of Energy and Resources has been assigned the responsibility for the management of all activities on the Site on behalf of the Government of Saskatchewan. SRC has been contracted by the Ministry of Energy and Resources to act as project manager for the Gunnar project. The Government of Saskatchewan is the legal landholder and retains all legal and financial responsibilities for reclamation, decommissioning, monitoring and maintenance activities that are required under a CNSC licence. It is the Ministry of Energy and Resource's intent to remediate the Site to an acceptable condition to where the Site qualifies for a CNSC licence exemption and may enter Saskatchewan's Institutional Control Program (ICP). A financial assurance letter was provided by the Ministry of Energy and Resources, and is found in Attachment E.

12 Communication Program

Requirement: The licensee shall implement and maintain a Communication Program for the facility, including a public disclosure protocol, for each Phase of activities at the Gunnar Site.

SRC Response

Presented below are the stakeholders identified by SRC, communication tools being used in the Gunnar project and SRC's overall community engagement approach. These will continue to be used. Outreach efforts performed over the licensing term are presented in Attachment F.

Stakeholders

SRC identified the stakeholders listed below for the Site. We will keep them engaged as needed.

- Minister responsible for SRC.
- The Government of Saskatchewan represented by the Ministry of Energy and Resources.
- Other government stakeholders.
- Regulators:
    - Canadian Nuclear Safety Commission (CNSC).
    - Saskatchewan Ministry of Environment (MOE), particularly the Environmental Assessment Branch and the Environmental Protection Branch.
    - Saskatchewan Labour Relations and Workplace safety.
    - Other.
- Municipal and Indigenous government representatives from Northern Settlement of Uranium City, Northern Hamlet of Stony Rapids, Northern Settlement of Camsell Portage, Black Lake Denesuline First Nation, Fond du Lac Denesuline First Nation, Hatchet Lake Denesuline First Nation, and Northern Settlement of Wollaston Lake. In Alberta the target audience is the Athabasca Chipewyan First Nation.
- Métis Nation – Saskatchewan.
- Prince Albert Grand Council (PAGC).
- Athabasca Basin region residents.
- Athabasca Basin region business owners.
- Saskatchewan citizens.
- Ya' thi Néné Land and Resource Office.
- Elected representatives (MLAs and Saskatchewan MPs).
- Media.
- Contractors and consultants interested in working on Project CLEANS or currently involved in the project.
- Interest groups.
- Mining and remediation industries.
- Economic development and training organizations.
- Potential SRC clients.
- Potential employees of SRC and potential employees of contractors.

Communication Tools

Some of the communication tools that are used to inform the targeted audience include:

- Online, for example:

    - Project CLEANS section of the SRC corporate website (), which contains project information and updates.
    - Social media (e.g., Facebook, Twitter, LinkedIn and YouTube) which are used for project updates, annual videos on project progress, etc.
- Media relations activities – media pitches, news releases, interviews, events, for example:
    - Radio: Missinipi Broadcasting (MBC), CBC, CKOM.
    - Print: Opportunities North, Saskatchewan Sage, Eagle Feather News, Prairies North, and web-based media.
- Advertising, for example:
    - Radio: MBC.
    - Print: Opportunities North, Saskatchewan Sage, Eagle Feather News, Prairies North, Up Here Business, and other industry publications.
    - Social Media: Ads/post promotion on Facebook, etc.
- Print Material – fact sheets, posters, public announcements, invitations, signage.
- Public Meetings – annually in each of the Athabasca Basin Region communities. Frequency of public meetings may be reduced during Follow-up monitoring.
- Workshops, conferences, tradeshows, and open houses – as appropriate opportunities arise.
- Newsletter – project updates, notices, and images; sent to a subscriber list; issues are also posted on SRC's website and social media.
- Site visits by local leadership – annually. Frequency of site visits by local leadership may be reduced during Follow-up monitoring.
- Ad hoc conversations and responses to questions from local residents by project staff.

Local Community Consultation and Engagement

SRC employs an Indigenous Senior Advisor who leads communication with different leadership in the Athabasca Basin Region. This includes regular discussion on Project CLEANS with both community members and community contractors as SRC strives for open and transparent communication allowing the project to flourish under the guidance from Athabasca leaders. This will continue.

SRC is working with Ya' thi Néné Land and Resource Office (YNLR), an organization created by the Athabasca Basin Region to oversee resource development in the region (created after Gunnar Remediation Activities began). YNLR is a conduit for SRC to utilize traditional knowledge and keep lines of communication open for Project CLEANS. SRC will involve YLNR staff in post-remediation monitoring.

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Attachment A:

Boundary Map

Gunnar Mine

CNSC License

PROJECT	CLEANS - GMP Remediation (SRC)		
TITLE	Updated Gunnar Mine CNSC License Boundaries (2025)		
PROJECT #	12194-455	REFERENCE:	
DESIGN	AB	Coordinate System: NAD 1983 CSRS UTM Zone 12N Datum: North American 1983 CSRS	
CHECK	VZ	NOTES:	
FIGURE		1. Aerial image provided by SGIC 2. UAV image provided by SRC (2019)	
DATE	23/01/2025	Produced for GIS Request ID.1774	
SCALE	1:15,000	0 150 300 450 600 Metres	

SRC SASKATCHEWAN RESEARCH COUNCIL

Attachment B:

Follow-Up Monitoring Program

PROJECT CLEANS

CLEANUP OF ABANDONED NORTHERN SITES PROJECT

GUNNAR MINE AND MILL SITE REMEDIATION

FOLLOW-UP MONITORING PROGRAM

Prepared for:

Canadian Nuclear Safety Commission
and
Saskatchewan Ministry of Environment

Prepared by:

Saskatchewan Research Council
Environmental Remediation

SRC Publication No. 12194-451-25A24

May 2024

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APPENDICES

1 Introduction

1.1 Site Background

The Gunnar Mine and Mill Site (the "Site" or the "Project") is located on the north shore of Lake Athabasca in northern Saskatchewan (Site Plan in Appendix I). The Site, which was operated by the former Gunnar Mines Limited, commenced uranium production in 1955 and ceased mining operations in 1963. Uranium ore was initially mined from an open pit from 1955 to 1961, and from an underground operation between 1957 and 1963. The Site officially closed in 1964, with little or no remediation of its facilities. At that time, a channel was blasted between the Gunnar Pit and Lake Athabasca to allow flooding of the open pit and sub-surface workings. Concrete bulkheads were constructed over the mine shaft and two raises, the shaft was plugged with concrete, and the mine site was abandoned, with all buildings, tailings, and waste rock piles left on the Site "as is" .

Uranium ore was generated from a total of over 8.5 million tons of rock that had been mined and processed. This resulted in some 2.2 to 2.7 million m^3 of waste rock and over five million tons of unconfined tailings that were directed to nearby valleys, depressions, and lakes, covering a total of 81 ha of land.

The Site can be accessed by air throughout the year, by boat or barge during the ice-free months, and by ice road during a period of the winter, weather conditions permitting and pending construction of an ice road between the Provincial Ice Road and Gunnar.

In the late 1980s, Saskatchewan Environment and Public Safety established the Abandoned Mines Remedial Action Program (Athabasca Land Use Planning Interim Advisory Panel, 2003; Peach and Hovdebo, 2003). Abandoned mines were identified, including the Site and other mines in the vicinity of Uranium City.

In 2006, Saskatchewan Research Council (SRC) was requested by the Government of Saskatchewan to manage the clean up of the Site as part of Project CLEANS (Cleanup of Abandoned Northern Sites). Project CLEANS involves the mitigation of human and environmental risks at the Site, Lorado Mill and 35 abandoned uranium mines and exploration sites in northern Saskatchewan. SRC is managing the Site and site activities on behalf of Saskatchewan Ministry of Energy and Resources.

Potential hazards to humans, plants and animals, and the natural environment from existing conditions on the Site fall into four fundamental categories: physical hazards (such as those associated with the waste rock piles); chemical hazards (associated with releases to the receiving environment); radiological hazards (from the tailings and waste rock areas); and biological hazards (including those associated with the potential accumulation of contaminants in plants and wildlife). These hazard categories have been addressed in the context of four key components on the Site, which include: (i) the demolition debris; (ii) the waste rock piles; (iii) the unconfined tailings deposits; and (iv) the flooded pit.

1.2 Project Objectives

The objectives of the Project are:

- Eliminate or reduce public safety hazards and environmental risks at the Site now and in the future.
- Develop sustainable remediation options that are technically and economically feasible.
- Establish a responsible and cost-effective environmental monitoring program, while minimizing the long-term care and maintenance at the Site.

The Project endpoints (or desired outcomes of the remediation efforts) are as follows:

- The Site does not pose unreasonable public health or environmental risks.
- Flora and fauna adjacent to and within the Site are not significantly impacted by contaminants.
- Traditional use of resources in the vicinity of the Site can be safely conducted.
- The desire is to have the Site managed through the provincial Institutional Controls Program (ICP) for long-term care and maintenance.

To achieve the above objectives and meet the associated endpoints, key components of the remediation have been identified to include: the demolition of buildings and structures that have deteriorated since site closure in the mid-1960s (now complete); reducing the contaminant load to the Gunnar pit; remediation of waste rock piles containing ore fragments and a heterogeneous distribution of contaminants; and establishment of engineered covers on unconfined tailings that are terrestrial and partially submerged in Lake Athabasca.

1.3 Environmental Impact Assessment

As a part of the Project, the Gunnar Environmental Impact Statement (referred to as “EIS” throughout the text) has been developed to analyze and document the expected potential impacts resulting from the site remediation with a purpose to identify and rectify the site-related hazards and risks, collect baseline environmental information, and outline potential options for site rehabilitation (SRC, 2013).

The final version of the Gunnar EIS was submitted to the Saskatchewan Ministry of Environment on November 29, 2013, and approved by August 20, 2014. It was followed by a Canadian Nuclear Safety Commission (CNSC) Hearing and approval on November 07, 2014. Based on these approvals, a nuclear waste licence has been issued by CNSC in January 2015, valid until November 2024 (CNSC, 2014).

In compliance with this regulatory requirement, the EIS included a Post-construction Monitoring Plan with a commitment to further develop a follow-up program and implement it upon completion of the physical remediation (SRC, 2013, Appendix V.2).

This documents – the Gunnar Mine and Mill Follow Up Monitoring Program (the “Program”)– is based on the approach and principles used by the EIS and is intended to modify the Post-construction Monitoring Plan presented in the EIS to reflect the changes from physical remediation since 2010 (see below).

1.4 Physical Remediation

The remediation of the Site began in September of 2010. The first phase of remediation, referred to as the demolition phase, involved the abatement of asbestos-containing material and removal of existing buildings and facilities. It was completed in 2011.

The next phase of remediation, referred to as the active remediation phase, has been divided in two sub-projects for management purpose: Tailings and Other Site Aspects. Three main tailings areas are found: Gunnar Main Tailings (GMT), Gunnar Central Tailings (GCT), and Langley Bay Tailings (LBT). This phase includes activities necessary to address the risks and hazards due to the tailings, waste rock piles, town site, demolition debris, Catchment 3, and the Open Pit. All the activities under this phase were described in the corresponding Design Report (Okane 2015, SRK 2017) and were approved by the responsible regulators. To date, the remediation work is in progress. Most tailings areas have been covered and revegetated (except for Langley Bay Tailings) while most of the Gunnar Other Aspect scope is completed. Activities have been reported in SRC's Annual Reports to regulators.

2 Purposes of Monitoring

Follow-up under the Impact Assessment Act (IAA) means a program for "verifying the accuracy of the impact assessment of a designated project and determining the effectiveness of any mitigation measures."] The IAA is explicit in the role of follow-up in encouraging improvements to impact assessment (IA) (sec 6(1)(n)) (Noble 2020) .Therefore the need for both an operational monitoring and follow-up program is necessary for the purpose of determining if the identified environmental effects occur as predicted in the EIS , as well as to confirm whether the proposed mitigation measures are effective and whether or not additional mitigation measures will be required.

The EIS outlined the framework for environmental monitoring during physical remediation activities (operational monitoring program) and post-operational period (follow-up monitoring program) are presented in the sections below.

3 Operation Monitoring Program (Ongoing)

An operational monitoring program has been developed as a part of EIS and implemented during the active remediation phase (with minor modifications suggested and approved, when necessary). The objective of the operational monitoring program during the remediation activities at the Site was to determine potential environmental effects due to active work including quality and quantity of environmental contaminants released to the environment.

The results of this monitoring have been reported annually to CNSC and Saskatchewan Ministry of the Environment since 2016. In 2019, the initial Operational Monitoring Program was revised to consider changes in the Site conditions due to remediation work in progress. Since then, the Project in general have demonstrated satisfactory environmental performance, with the remediation activities performed in compliance with the federal and provincial regulatory standards. The ongoing Operation Monitoring Program will continue until the end of the active remediation phase. It will then be replaced with the long-term Follow-up Monitoring Program (this Program), subject to approval by CNSC and MOE.

4 Follow-up Monitoring Program

4.1 Objectives of the Program

The Follow-Up Monitoring Program (the “Program") describes a monitoring strategy and schedule following the active remediation phase. Its purpose is to monitor and document the level of environmental protection resulting from the remediation activities and includes commitments to contingency actions necessary in the event that mitigation measures were not fully effective.

The Program proposed in this document is mainly based on the strategy suggested in the EIS, [SRC, 2013, Appendix V.2]. Specific follow-up studies (e.g., Aquatic Study and HHERA Update) were included in the Program as a part of the final EIS approval to address uncertainties and concerns raised during the regulatory review of the document. Several components were included in this Program to follow the “Monitoring and Maintenance” sections provided as a part the Gunnar Tailings Design and Gunnar Other Site Aspects Design. These components include monitoring activities, timeline, and criteria for specific aspects described in Appendix II.

The Program includes long-term monitoring. It describes in detail the monitoring of the Site’s environmental components beyond the active remediation phase in order to:

- monitor success of remediation activities carried out at the Site;
- monitor the rate and degree of changes after remediation;
- evaluate seasonal and multi-annual trends
- quantify the environmental effects after the completion of remediation
- trigger additional mitigative action should the post remediation results call for corrective actions on-site;
- confirm descending trends in concentration of major contaminants of concern (COCs) to acceptable levels (e.g., below the applicable regulatory criteria, approved Site Specific Remedial Objectives [SSRO] or comparable with natural background conditions in the area),
- provide justification for modification (enhancing, reducing, or eliminating) further monitoring activities; and
- demonstrate that the site is physically and chemically stable and provide the basis for transferring the Site to the Institutional Control Program (ICP).

4.2 Summary of the Program

The program will monitor components, such as receiving water, sediment, aquatic and terrestrial effects, as well as longer term impacts on groundwater quality and flow patterns. It will provide the necessary information to ascertain whether remediation of the site has been effective and if the site can be turned over to institutional control, as part of Saskatchewan ICP.

APPENDIX II Summarizes the details of each monitoring activity, such as intended purpose, timing, frequency, analytical parameters, criteria of success, and triggers for corrective actions. APPENDIX III provides maps depicting the main Site aspects and proposed monitoring locations. An overview of the proposed Program is provided below.

4.3 Site Aspects Environmental Components Subject to the Follow-up Monitoring

4.3.1 General Site Inspections

Annual site visits for general inspection will be conducted for visual evidence of the Site environmental and geotechnical performance and any deviation from the remediation design. Visual inspection will be focused on potential covers damage. Also, the visual inspection will address vegetation cover to ensure vegetation establishment meets the Project objectives and design specifications depending on the cover location and purpose. More details on the cover and vegetation monitoring are provided in sections "Engineering Aspects" and "Terrestrial Ecosystem Recovery" and in APPENDIX II.

Any issues found during general site inspections will be analyzed by either SRC in-house subject matter experts or independent consultants and reported to responsible regulators. For each issue, a corrective plan will be developed and implemented. Major corrective actions will be presented to regulators and implemented upon approval.

4.3.2 Climate

Collection of climatic information will be part of the post-remediation period. The weather station, which collects key environmental parameters including surface air temperature, wind direction, speed and frequency, and precipitation will be utilized in the follow-up monitoring, subject to periodical maintenance as required.

A strong appreciation of site meteorological conditions is essential as an input to several programs; specifically, air quality (dispersion of pollutants), hydrology (annual and seasonal deficits or excess of precipitation over evapotranspiration), contaminant transfer fate modelling, and performance of the remediation structures and soil covers.

4.3.3 Surface Water Quality

Regular sampling of surface water quality has been conducted at the Gunnar Site since 2012 as part of the baseline survey, EIS and Operation Monitoring Program.

The station locations are shown in APPENDIX III. Surface water will be sampled from known residual sources at the Site (SP1 seep, GMT South seep, GMT channel, and Gunnar Pit) and from all potentially affected receiving water bodies: St. Mary's Channel, Zeemel Bay, Langley Bay and nearby Lake Athabasca. Depending on the water flow direction and assumed source of COCs, the monitoring stations are pooled into three groups, as follows:

- Group 1: Gunnar Pit and St. Mary's Channel. The group includes stations GP001, LA001, LA005, and LA007. Also, it includes the reference sampling location (LA010) in the Lake Athabasca, approximately five kilometers west of the Site.
- Group 2: Tailings-affected water. The group includes stations GMT-Seep, GM001, LB001, LB002, LB003, and LA008 (LA008 reflects potential water pollution in the Lake Athabasca due to water exchange with Langley Bay). Station TS001 reflects water quality in GMT South seep toward the historical Sport Fields and St. Mary's Channel.
- Group 3: Catchment 3, East Waste Rock Seep, and Zeemel Bay. The group includes stations MT002, WR001 (SP001), ZC001, ZC002, and ZC003.

- Also, the water quality will be monitored in the diversion channels (i.e., GMT-to-LBT channel and historical drainage channel through the waste rock deposit) following remediation to better estimate COC loading to Langley Bay and Zeemel Bay. The sampling locations at the inlet and outlet of each diversion channel will be identified upon completion of the active remediation phase.

The samples will be collected using SRC's standard operating procedures (SOPs) and analysed for basic physicochemical parameters, major ions, trace metals, and selected radionuclides. The full list of analyses is available in Appendix II.

4.3.4 Surface Water Quantity

Surface water quantity (flow rate) monitoring is intended to measure the amount of water running annually from the key Site areas. This information, in combination with the water quality monitoring (see previous section), will allow for estimation of contaminant loading from the Site to receiving water bodies.

The flow rate monitoring will be done through continuous (datalogger-based) or regular manual measurements at three key hydrometric stations near the Gunnar Open Pit (GP01), Gunnar Main Tailings (GM01), and restored Historical Drainage Channel through the waste rock piles (SP01). The dataloggers will be downloaded twice a year (early spring and late fall). The station locations are shown in APPENDIX III (Surface Water Monitoring Stations).

4.3.5 Groundwater Quality

A model of the Gunnar groundwater flow and transport was developed in 2013 for the Gunnar site as a part of the EIS (SRC, 2013, Appendix G). A primary objective of the model was to estimate mass loadings of contaminants that leave the system with groundwater discharge as baseflow to streams and water bodies. Although some aspects of the Site, such as tailings deposits and waste rock piles were altered due to remediation, no significant subsurface work was done, and the pre-remediation groundwater flow is likely to remain unchanged – this will be confirmed through this Program.

During the active remediation phase, the groundwater level and quality have been regularly monitored as a part of the approved Operation Monitoring Program. The groundwater monitoring stations characterize the townsite area, acid plant area, and Catchment 3 area, and have been sampled twice a year since then. Monitoring at these stations will be continued as a part of this Program to ensure a consistent transfer from the operation monitoring to the follow-up monitoring in these areas.

The data obtained from groundwater monitoring will be used to estimate the contaminant transport to receiving water bodies. It is anticipated that additional monitoring stations will be installed in the GMT, GCT, and LBT areas. East Waste Rock Pile footprint.

The ground water monitoring stations shown in Appendix III (Proposed Ground Water Sampling Stations) are pooled into three groups, as follows[1]:

- Group 1: Catchment 3. The group includes stations #1-4 with existing groundwater monitoring piezometers (to be upgraded as needed).

[1] The station coding is subject to change upon completion of all the monitoring wells

- Group 2: Tailings (GMT, GCT, and LBT). The group includes stations #5-14, new piezometers will be installed in the approximate locations (as shown in APPENDIX II. Ground Water Monitoring Stations)
- Group 3: Waste Rock Piles and Town Site (including Landfill A and B). The group includes stations #16-23 with existing groundwater monitoring piezometers (to be upgraded as needed).

The samples will be collected using SRC's SOPs and analysed for basic physicochemical parameters, major ions, and dissolved trace metals, and selected radionuclides. The full list of analyses for is available in Appendix II.

A decommissioning plan for the groundwater monitoring wells will be developed later once sufficient information has been collected through this Program. Decommissioning would be completed before transfer to ICP – some wells may be maintained for ICP monitoring.

4.3.6 Air Quality

The air quality monitoring will include 10 radon and 12 dustfall monitoring stations. The monitoring locations are shown in APPENDIX III (Air Quality Monitoring Stations) and analytical parameters are listed in APPENDIX II. The monitoring approach currently used for operational monitoring will be retained for this Program to demonstrate the radon and dustfall levels reduction and stabilization at the safe levels comparable to those in reference locations. This will also be a measure of the success of the remediation program.

It must be noted that the air quality in the vicinity of GMT, GCT, and Waste Rock piles has significantly improved due to cover completion. Since 2019, the radionuclide and other COC content in the dustfall samples was very low. Same way, radon concentrations in the ambient air are close to or below the background level in N. Saskatchewan. If the current trends in the air quality continue, the air monitoring scope will be revised (or discontinued) after 2-3 years of follow-up monitoring.

4.3.7 Gamma Radiation

Gamma surveys will be performed on "as needed" basis to confirm the cover performance as gamma radiation shield and confirm the absence of radiation hazards to members of the public.

A trigger for performing a radiation survey will be visible damage to any radiation shield (e.g., cover loss due to erosion). The results of radiation surveys will be analysed against the Site's Radiological Objectives (recorded values 1 m above the ground surface averaged over one hectare less than 1.14 µSv/h and no 2x2m individual value exceeding 2.64 uSv/h). A corrective action plan will be developed and implemented as necessary depending on extent and nature of the damage (see Section "Engineered Aspects" below). This will be presented to regulators for approval as needed.

Gamma survey will be performed using the current survey method. Gamma radiation measurements will be collected in an automated fashion using data logging equipment connected to both a radiation detector and a global positioning system, at a minimum, with 10 m x 10 m gridded gamma radiation surveys conducted for radiological clearance at other decommissioning sites.

4.3.8 Engineered Aspects

The engineered aspects of the Gunnar remediation include soil and rip-rap covers over the tailings, waste rock and landfills. This category also includes water diversion channels, low-level crossing, and stainless-steel covers over the mine openings.

Monitoring of the soil covers includes regular inspections of their integrity, including, but not limited to signs of differential settlement, ponding, formation of sinkholes, erosion damage such as gulleys and/or reels, cracking along slopes, evidence of animal damage (migration traffic/burrowing), and piping and/or seeps near toe should be noted. The benches near the toe and along the shoreline will be visually inspected for any transported erosion debris. If cover loss has occurred above set thresholds (defined in Appendix 2), a topographical survey of the area (land-based or LIDAR) may be completed to confirm the presence of cover thinning. (e.g., due to an event of significant cover loss). These topographical surveys may be done in conjunction with gamma surveys. Vegetation will be monitored to ensure that the coverage requirement as per the design. is achieved on the erosion susceptible slopes.

Inspections of the water diversion structures and low-level crossings will be conducted as a part of Site inspections to confirm the physical integrity of the inlets/outlets, channels, banks and erosion control protection. Inspection of the stainless-steel mine covers will examine the covers for physical damage, presence of corrosion, etc. that could affect the structural integrity of the structures. Should a damage or weakness be identified, it will be assessed by a qualified person and, if necessary, a correction action plan will be developed and implemented.

Details of the monitoring of engineered aspects and features are described in APPENDIX II. Aspect-specific procedures for the monitoring of the engineered aspects will be developed by the end of the active remediation phase of the Project and will be appended to this document.

4.3.9 Former Gunnar Dam

During the operation of the Gunnar Mine and Mill, a dam was constructed at the south end of the GMT to contain the tailings. During the active remediation phase, the former Gunnar dam was buried within the GMT landform. The former dam will be monitored by a qualified person through monitoring of the tailings cover and GMT groundwater regime presented above.

4.3.10 Terrestrial Ecosystem Recovery

Several areas at the Site have been disturbed during mining and remediation work such as:

- Tailings and waste rock deposits
- Landfills A and B
- Town site areas
- Other disturbed areas footprint (borrow pits, access roads, etc.)

Some of these areas received an engineered cover of coarse low-nutrient till. Following remediation, these areas were revegetated with a variety of native species, while other disturbed areas were left for natural restoration (e.g., borrow pits). The general purpose of the revegetation program was not only to create stable the engineered soil covers (i.e., minimize soil erosion) but also to promote establishment of

self-sustaining vegetation cover and start natural succession toward re-establishing natural ecosystems typical for the region.

Over the initial five years following revegetation, general soil (cover) and vegetation surveys will be conducted annually. Any serious problem with the soil and vegetation cover integrity will be a subject to corrective actions, e.g. additional seeding or extra erosion control. After 10 years, a comprehensive survey is to be done under supervision of a qualified specialist. This survey will include plant community description, visual observations of soil cover, vegetation and soil sampling, and mapping of the areas that may require additional mitigations. The comprehensive survey of terrestrial ecosystem recovery process will ensure that:

- The engineered covers over the tailings, elevated radiation areas, and landfills are stable as per the design and do not show erosion and /or differential settlement beyond the acceptable thresholds (defined in Appendix II).
- Implemented erosion protection is sufficient for soil stabilization and vegetation development.
- Established vegetation cover is self-sustaining and provide the ground cover necessary to prevent erosion.
- Soil properties are sufficient for support of vegetation growth.
- Vegetation established on the tailing cover does not include exotic or invasive species.
- Vegetation established on the tailing cover does not intensively uptake COCs and
- Natural vegetation succession takes place over the site including the areas of the borrow areas.

The following parameters are to be monitored to meet the above goals:

- Plant condition, community composition and species richness;
- Soil condition (including degree of soil erosion);
- Litter and organic matter accumulation process;
- Vegetation cover versus bare ground;
- Above-ground biomass production; and
- Soil agronomical properties,

4.3.11 Aquatic Environmental Effects

The EIS documents several baseline studies conducted on aquatic conditions and organisms in the Gunnar area, in particular in Zeemel, Langley and Back Bays, and St.Mary's Channel. Zeemel Bay receives runoff and seepage from the mine site and mill areas as well as from waste rock piles whose perimeters flank and, on the south side, extend into the bay. Langley Bay and Back Bay receive seepage and runoff from upstream tailings deposits. An additional detailed aquatic study was completed at the Site in 2016 (prior to remediation) to collect most up to date baseline data (CanNorth, 2017).

The follow-up aquatic environmental effects monitoring will include follow up investigations on sediment, benthic invertebrates and fish in the reference and the exposure areas noted above. Baseline studies have also considered various inland lakes and stream environments as well as characterizing aquatic resources

in Lake Athabasca itself to complete the environmental characterization of the local area. However, these locations are not directly affected by the remediation activities and thus, have not been included in this Program.

The approach of planned aquatic studies under this Program will be similar to that used in 2016. The general objective is to document the rate and degree of improving conditions in the directly affected aquatic communities as the sources of contamination are decreased by the remediation activities. Samples of water, sediments, bentic invertebrates, key fish species, and some aquatic plants will be collected from Zeemel, Langley and Back Bays, and St.Mary's Channel, and reference station in Dickson Bay.

Two aquatic surveys are planned to be done over a ten-year period following the completion of site work. Each will include collections of sediments, benthic invertebrates and fish. The first survey will be conducted during the summer following formal completion of the active remediation phase. The second investigations will be conducted on the eighth or ninth summer following the initial survey. Together with previous surveys, there will be a consistent and comprehensive data set to evaluate trends in sediment quality and the aquatic community progression. We believe that at that time, sufficient information will be available to understand whether the trends are clear and favourable for the Site transition to ICP.

4.3.12 Human Health and Ecological Risk Assessment Updates

A human health and ecological risk assessment (HHERA) was conducted as part of the EIS (SRC, 2013 Appendix J) to identify the current risks to members of the public and aquatic and terrestrial species utilizing the Site. As with all risk assessments, calculations of risk are derived values based largely on information from literature-based studies (Transfer Factors, Toxicity Reference Values, Exposure and Ingestion Levels), often for different species than are present in the study area. Additionally, certain assumptions were made regarding time of exposure and intensity of site use by humans and biota.

The primary risk for human site use is related to exposure to gamma radiation. Covering the tailings and waste rock with local till material will effectively reduce gamma exposure to people using the Site in the future. The effectiveness of the covers in terms of gamma reduction have been measured immediately after placement.

An additional risk to humans utilizing the Site is the consumption of local fish. Similarly, risks have been identified to aquatic and terrestrial biota stemming from exposure to contaminated soil, sediment and aquatic plants. The soil covers to be placed during remediation will reduce or eliminate direct exposure to contaminated soil as well as providing temporary water storage for precipitation such that it may evaporate or be used by terrestrial plants, thereby reducing infiltration and subsequent contaminated seepage to local water bodies. Additionally, water diversion structures and other measures have been incorporated into the remediation plan to further reduce contaminated seepages. These measures will improve local water quality and allow the deposition of clean sediment over that which is currently causing elevated contaminant and radionuclide levels in benthic invertebrates and aquatic macrophytes.

It is therefore proposed that the follow up risk assessment program be updated in year 10th following remediation to ensure that risks to humans related to local fish ingestion and risks to aquatic biota are

largely related to the poor historical water quality emanating from the Site. Although the remediation program will introduce various ways to improve water quality entering local water bodies, it will take some time for fresh sediment to be deposited over existing contaminated sediment and reduce the associated risks to aquatic vegetation and benthic invertebrates. The results of the aquatic environmental effects monitoring program will be utilized for the Human Health and Ecological Risk Study re-assessment..

The results of the risk re-assessment will provide a strong indication that the Site is safe to visit by members of the public for traditional land use. Should elevated risks persist, it will document the areas requiring further remediation. If risks have largely been addressed, this will be valued information to provide to the public to prove the success of the Project.

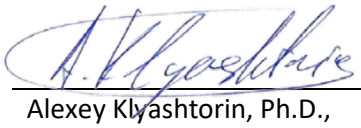
4.4 Reporting

Findings from the Program will be reported on an annual basis as part of the Site annual regulatory report. Recommendations and corrective actions implemented will be included. Reports on specific components of the Program such as the terrestrial ecosystem recovery and aquatic environmental effects monitoring, and the HHERA will be summarized in the annual reports and appended.

4.5 Conclusion

The Follow Up Monitoring Program is a living document which will evolve as the Project progresses. Where additional issues arise, new studies or expanded monitoring to address uncertainties may be added to the Program. As the monitoring and studies proposed within the document provide further information and adequately address identified issues, they may be modified, expanded, or removed from the Program upon consultation with stakeholders and regulator’s approvals.

Prepared by:



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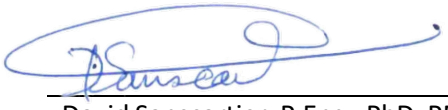

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APPENDIX I:

Gunnar Mine and Mill Site Plan

Gunnar Camp
Gunnar Beach
Limited-use road

Boundary Type

Administrative area
CNSC license

Remediation footprint

Borrow Area
Quarry Area

Site Area

AL : Adair Lake
AS : Airstrip
BB : Back Bay
BP : Beaver Pond
C3 : Catchment 3
DB : Dixon Bay
EWR : East Waste Rock Pile
FC : Foster Creek
GCT : Gunnar Central Tailings
GMT : Gunnar Main Tailings
GP : Gunnar Pit
LA : Lake Athabasca
LB : Langley Bay
LBT : Langley Bay Tailings
PAAP : Process Area - Acid Plant
PAM : Process Area - Mill Site
SWR : South Waste Rock Pile
SMC : St. Mary's Channel
TBA : Tailings Backspill Area
TW : Townsite/Camp
ZB : Zeemel Bay
ZC : Zeemel Creek

PROJECT	CLEANS - Former Gunnar Uranium Mine Site	
TITLE	Gunnar Mine and Mill Site Plan	
PROJECT	12194-435	REFERENCE: Coordinate System: NAD 1983 UTM Zone 12N Datum: North American 1983
DESIGN	AB	
CHECK	DS	NOTES: 1. Aerial image provided by SGIC 2. UAV image provided by QM Points (2022) 3. Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
FIGURE	01	
DATE	13/01/2023	
SCALE	1:35,000	0 370 740 1,110 1,480 Metres

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APPENDIX II:

Gunnar Site Transitional Monitoring Plan

SRC Publication No. 12194-451-25A24

Gunnar Site Follow Up Monitoring Plan

Item	Monitoring Type	Purpose	Timing	Monitoring Frequency	Parameters	Stations	Monitoring Criteria
1	General Site Inspections	General assessment of the site performance and condition	Once a season	Annually for 5 years upon completion of physcal remediation, then every five years	Visual observation of the tailings covers, Landfill A and B cover, precipitate presence, littering, vegetation condition, signage condition, etc.	n/a	• Satisfactory cover condition, i.e., there is no severe disturbance that may affect the cover performance (e.g., significant erosion or man-made disturbance). • No sinkholes or water ponding on the cover. • No garbage on the site. • Satisfactory vegetation cover, i.e., it looks healthy and there is no severe impact from human activities. If any of the above criteria is not met, necessary mitigations are to be discussed with responsible regulator(s).
2	Climate	Basic information on local weather patterns.	Downloading data once a season	Annualy - data downloading and equipment maintanance and annual calibration (as per manual)	Temperature, wind (direction, speed and frequency) and precipitation, relative humidity	Current weather station at SWRP	NA
3	Surface Water Quality	To assess the water quality in the site sources (Gunnar pit, seeps), and receiving water bodies (St. Mary's channel, Zeemel Bay, and Langley Bay)	Twice a season (spring and fall)	Annually for the first 5 years, then reduced to every 3 years (depending on trend)	• General: pH, acidity, total alkalinity, hardness, HCO_3^-, CO_3^{2-}, specific conductivity, TDS, TSS. • Major ions: Ca, Cl, Mg, K, Na, OH^-, and SO_4^{2-} • Radionuclides: Ra-226 • Total Metals: Al, An, As, Ba, Be, Bo, Cd, Cr, Co, Cu, Fe, Pb, Mg, Mo, Ni, Se, St, Tl, Ti, U, Va, Zn	18 stations to monitor Lake Athabasca , Waste rock and Zeemel Bay, Tailings, and Langley Bay	**Site discharges:** no specific criteria; metal concentrations are expected to decrease with time compared to the corresponding multi-annual values. **Affected water bodies:** Metal concentration are not to exceed SEQG or SSRO (as per EIS); pH above 6.5
4	Surface Water Quantity (flow rate)	To estimate COC loading to receiving water bodies	Continious measurements at hydrological weirs using data loggesrs.	Annually for the first 5 years, then reduced to every 3 years (depending on trend)	water level in meters above the sea level (masl)	3 stations at main discharges and seeps from: Gunnar Open Pit (GP01) Gunnar Main Tailings (GM001), and Restored Natural Channel,	n/a

Item 0	Monitoring Type	Purpose	Timing	Monitoring Frequency	Parameters	Stations	Monitoring Criteria
5	Open Pit	Water quality and quantitity (see surface water monitoring and hydrologivcal monitoring)					
6	Ground Water Monitoring	To assess long-term performance of the water treatment campaign	Twice a season (spring and fall)	Annually for the first 5 years, then reduced to every 3 years (depending on trend)	• General: pH, acidity, total alkalinity, hardness, HCO_3, CO_3^{2-}, specific conductivity, TDS, TSS, sum of ions. • Major ions: Ca, Cl, Mg, K, Na, OH^-, F, and SO_4^{2-} • Radionuclides: Ra-226 • Dissolved Metals: Ag, Al, An, As, B, Ba, Be, Bo, Cd, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, Sb, Se, Sn, St, Tl, Ti, U, Va, Zn	23 stations at main Gunnar aspects: GMT, GCT , LBT, Catchement 3,Townsite and Landfills A and B	• COC in ground water potentially affected by Landfills A&B shall not contain PHC above applicable guideline • Shall have pH above 6. • COC in ground water affected by historical mining are expected not to exceed historical multiannual variation and show long term descending trend
7	Air quality	Radon concentrations and airborn dust particles	Once a season (6 months exposure)	Annually for 2-3 years after completion of physical remediation. May be discontinued depending on results.	• Rn-222, • Dustfall total • Metals and radioanuclides: As, Cu, Ni, Pb, Zn, U, Ra-226, Ag, Al, Ba, Cd, Co, Cr, Fe, Mo, Se, Th-230, Po-210, Pb-210	At least 5 radon stations and 3 dustfall transects (station location is subject to change)	Stable or decreasing radon and dustfall parameters compared to the last 5 years of monitoring results
8	Gamma Radiation	To confirm the cover performance as gamma radiation shield	As needed (see Column E)	As needed, e.g. in case of visibly compromised cover integrity (erosion, collapse, boiling, piping, efflorescents, etc.)	Gamma radiation dose rate, µSv/hr (spot measurements or walking survey depending on the affected area)	n/a	Dose rates should not exceed 2.64 µSv/h for 2x2 m spot readings and 1.14 µSv/h for average per hectare.
9	**Engineered Aspects:** Tailings Cover Geotechnical Inspections	To ensure the cover physical integrity	Once a season	Annually for 5 years upon cover construction completion, then every five years	Visual inspection of cover component for natural and man-made damage, such as formation of sinkholes, and signs of erosion such as gulleys and/or rilling. Visual signs of differential settlement may require topographic surveys (aerial or land-based). The inspections are to be done by a qualified person.	n/a	If progressive negative trends are observed or a substantial area of the cover no longer meets the design intent, responsible regulator(s) are to be notified and repairs/mitigations provided on a case-by-case basis. Action criteria: • Tailings exposure with increased radiation level. • Progressing reel erosion deeper than 0.3 m within the area greater than 100 m2. • Any visible sinkholes or depressions should be reviewed • Any areas where the riprap is not continuous or the geotextile is exposed and riprap sized gaps are observed (~0.3 m wide).

Item 0	Monitoring Type	Purpose	Timing	Monitoring Frequency	Parameters	Stations	Monitoring Criteria
10	**Engineered Aspects:** Tailings Cover Differential Settlement	To confirm the lanform stability	Once a season	Every five years starting from the landform completion	Visual inspection by a qualified person. If visible depressions or water stagnation, instrumental assessment is to be made (UAV or ground survey)	n/a	Up to 0.3 m. differential settlement expected and acceptable.
11	**Engineered Aspects**: Covers over WRP/WR Channel/General Mine Area	To confirm physical integrity of the covers	Once a season	Annually for 5 years upon cover construction completion, then every five years	Visual inspection of cover component for natural and man-made damage, such as formation of sinkholes, and signs of erosion such as gulleys and/or rilling. Visual signs of differential settlement may require topographic surveys (aerial or land-based). Erosion damage such as gulleys and/or rilling, cracking along slopes, evidence of animal damage (migration traffic/burrowing), and piping and/or seeps near toe should be noted. be done in conjunction with gamma surveys. The inspections are to be done by a qualified person. The benches near the toe along the shoreline should be visually inspected for any transported erosion debris. Detailed topographical survey or LIDAR of the site should be completed every 5 years or may be required if deemed necessary by the Engineer due to an event(s) of significant cover loss. These topographical surveys should be done in conjunction with gamma surveys.	n/a	Differential settlement is expected and depressions larger than 5 m in diameter and 0.3 m deep are discouraged. Unacceptable depression size is relative to the size of the landfill structure and is a size deemed to impact the surface water management features. If in the Engineer's opinion, cover loss has occurred, a survey of the area should be completed to confirm the presence of cover thinning.
12	**Engineered Aspects:** Landfill Covers	monitoring: To confirm physical integrity of the landfill covers	Once a season	Annually for 2 years upon cover construction completion, then every five years	(1) Visual inspection of cover for damage. Such damage, including, but not limited to the formation of sinkholes, erosion damage such as gulleys and/or rilling, cracking along slopes, evidence of animal damage (migration traffic/burrowing), and piping and/or seeps near toe should be noted. (2) The benches near the toe and along the shoreline should be visually inspected for any transported erosion debris.	n/a	Differential settlement is expected and depressions larger than 5 m in diameter and 0.3 m deep are discouraged. Unacceptable depression size is relative to the size of the landfill structure and is a size deemed to impact the surface water management features. If in the Engineer's opinion, cover loss has occurred, a survey of the area should be completed to confirm the presence of cover thinning.

Item 0	Monitoring Type	Purpose	Timing	Monitoring Frequency	Parameters	Stations	Monitoring Criteria
13	**Engineered Aspects:** Hydrolic structures (low-level crossings, rip-rap,drainage channel, geo-membrain, side slopes)	Physical integrity of water affected structures	Once a season	Annually for 5 years upon cover construction completion, then every five years	(1) Visual inspection for plumes of suspended solids downstream of structures. (2) Visual inspection of rip rap material. Ensure rip rap sizing and gradation is still adequate and placed appropriately to function as intended. Particular attention should be paid to collection of excessive fine-grained material and vegetation within the rip rap matrix (i.e. excessive means that the design function is altered). (3) Visual inspection of the low-level crossing. Ensure rip rap sizing and gradation is still adequate and placed appropriately to function as intended – note any impact of vehicle/ATV traffic. Particular attention should be paid to excessive collection if any fine-grained material and vegetation within the rip rap matrix (i.e. excessive means that the design function is altered). (4) Visual inspection of the rip rap apron. Ensure rip rap sizing and gradation is still adequate and placed appropriately to function as intended. Particular attention should be paid to collection of excessive fine-grained material and vegetation within the rip rap matrix (i.e. excessive means that the design function is altered) (5) Visual inspection of benches along historic drainage channel. Evidence of any material transported by erosion on the benches. (6) Visual inspection of general site drainage. Evidence of ponding near any hydraulic structures and natural/re-graded drainage not functioning as intended. (7) Visual inspection of all flow channels. Evidence of any obstruction that may impede the structure from performing as designed. Leaching from the covers		If any of the parameters requires action, a survey of the area should be completed by qualified engineer to confirm the issue(s) and identify proper corrective action(s).
14	**Engineered Aspects:** Mine Openings	Shaft cap integrity (3 on site)	Once a season(?)	Annually for 5 years upon cover construction completion, then every five years	Visual inspection for signs of instability, including, but not limited to deterioration, corrosion, physical damage, ponding around structures, and any evidence of freeze/thaw damage that could decrease the caps integrity. Both the inside and the outside of the caps must be inspected.		

Item 0	Monitoring Type	Purpose	Timing	Monitoring Frequency	Parameters	Stations	Monitoring Criteria
15	Terrestrial Ecosystem Recovery Monitoring	- To estimate vegetation recovery rates and need for maintenance - To assess plant community composition, infestation by invasive exotic species and need for weed control measures - To determine if the established vegetation cover is self-sustaining and capable to provide erosion control and aesthetic functions - To determine if soil properties are sufficient to support sustainable vegetation growth - To ensure that vegetation established on the tailing cover does not uptake radionuclides or other contaminants of concern from underlying layers	Once, between July and August	5 and 10 years after completion of physical remediation	• vegetation cover (%, visually) • litter and organic matter accumulation (visually) • plant community composition • rare species presence and condition • invasive or noxious weed presense • soil cover condition (including degree of soil erosion) • soil agro-chemical properties (when required to justify the vegetation cover performance) • CoC content in topsoil and (in case of concerns) in plant tissues	• Vegetation sampling locations on the cover are to be set up based on 50 m grids • Amount of sampling locations per aspect varies depending on the aspect area, from 3 (West Town site) to 30 (GMT) .	• No invasive species on the cover • The vegetation develops toward a common natural succession, • The vegetation cover composition is compatible with the local ecosites, • No need for additional erosion control,
16	Aquatic Ecosystems	To assess possible changes and trends in the aquatic ecosystem status.	Once, between July and August	1 and 9 years upon completion of physical remediation.	• Fish community composition and contamination • Bottom invertabrate community composition and contamination • Bottom invertabrate community composition and contamination	Same or nearby stations as in the 2016 Aquatic Study	n/a

List of Abbreviations

COC - Contaminant of concerns

EIS - Environmental Impact Assessment

LIDAR -Light Detection and Ranging

masl - metres above sea level

n/a - not applicable

SEQG - Saskatchewan Environmental Quality Guidelines

TDS - total dissolved solids

TSS - total suspended solids

UAV - unmanned aerial vehicle

WR - Waste rock

WRP - Waste rock pile(s)

APPENDIX III:

Gunnar Follow-up Monitoring Station Locations

SRC Publication No. 12194-451-25A24

Air Quality Monitoring Stations

- Dustfall
- Radon trap

PROJECT	CLEANS - Gunnar Mine		
TITLE	Active Air Monitoring Stations		
PROJECT #	12194-830	REFERENCE:	
DESIGN	AB	Coordinate System: NAD 1983 CSRS UTM Zone 12N Datum: North American 1983 CSRS	
CHECK	AK	NOTES:	
FIGURE		1. UAV image provided by SRC (2022-2023)	
DATE	15/04/2024	Base Map Service Layer: © 2024 Microsoft Corporation © 2024 Maxar ©CNES (2024) Distribution Airbus DS © 2024 TomTom	
SCALE	1:22,000	GIS Req.ID.1672	
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Surface Water Monitoring Stations

- Hydrometric
- Waterbody offshore
- Waterbody onshore

PROJECT	CLEANS - Gunnar Mine		
TITLE	Active Surface Water Monitoring Stations		
PROJECT #	12194-830	REFERENCE:	
DESIGN	AB	Coordinate System: NAD 1983 CSRS UTM Zone 12N Datum: North American 1983 CSRS	
CHECK	AK	NOTES:	
FIGURE		1. UAV image provided by SRC (2022-2023)	
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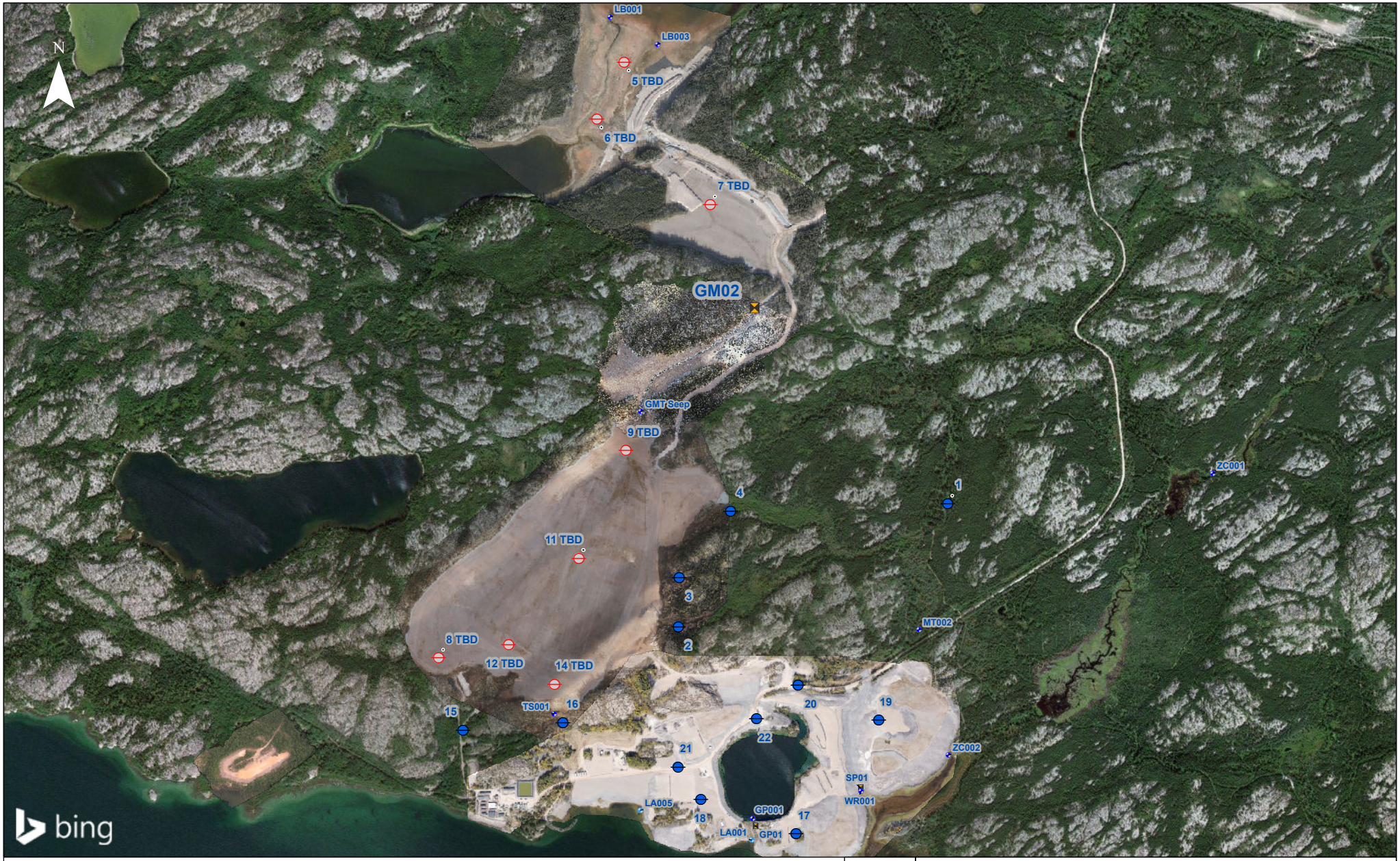

Ground Water Monitoring Stations

- Existing well
- To be installed

PROJECT	CLEANS - Gunnar Mine	
TITLE	Proposed Ground Water Sampling Stations	
PROJECT #	12194-830	REFERENCE:
DESIGN	AB	Coordinate System: NAD 1983 CSRS UTM Zone 12N Datum: North American 1983 CSRS
CHECK	AK	NOTES:
FIGURE		1. UAV image provided by SRC (2022-2023) Base Map Service Layer: © 2024 Microsoft Corporation © 2024 Maxar ©CNES (2024) Distribution Airbus DS © 2024 TomTom GIS Req.ID.1672
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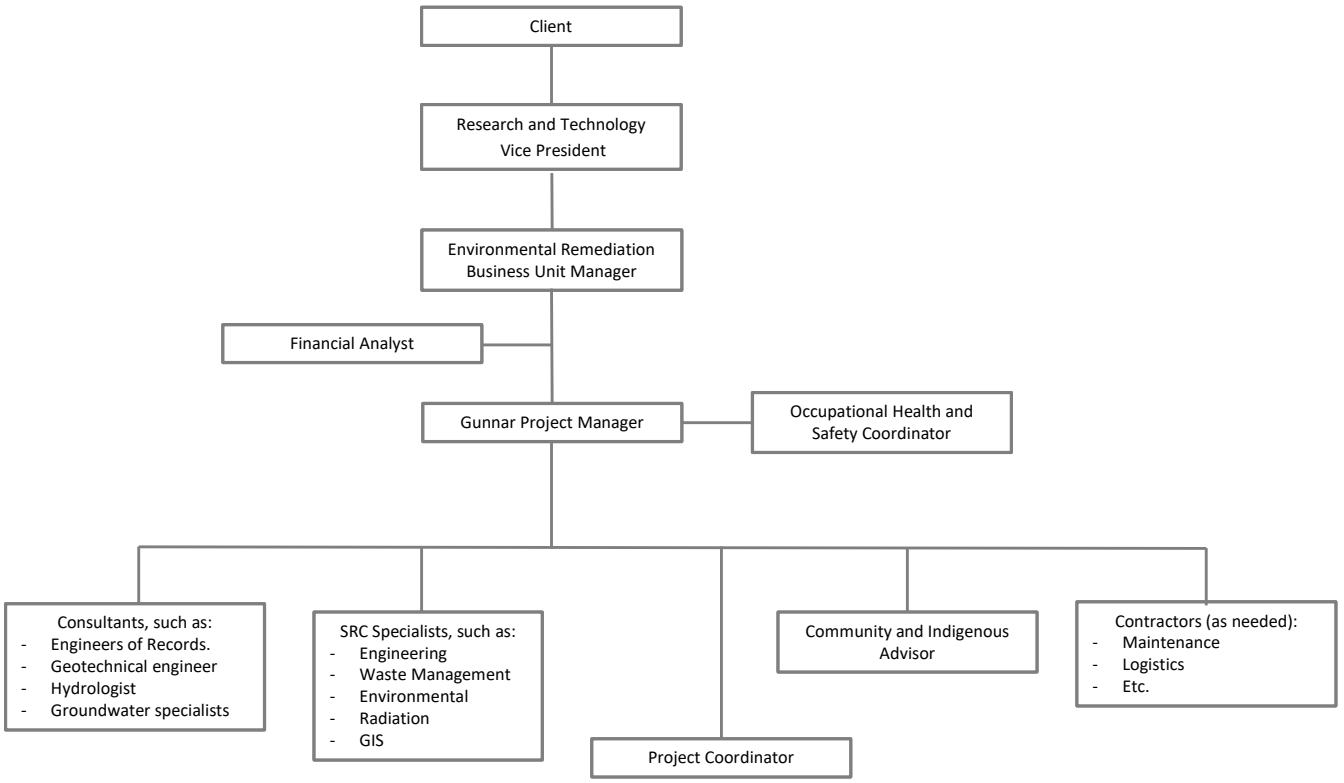
Attachment C

Project Organizational Chart

Gunnar Legacy Uranium Mine Organization Chart



Attachment D:

SRC Programs & Plans

This attachment was removed as it is subject to a confidentiality request.

Attachment E:

Financial Assurance Letter

Ministry of Energy and Resources
610-1945 Hamilton Street
Regina, SK Canada S4P 2C7

October 5, 2023

Haidy Tadros
Director General
Directorate of Nuclear Cycle and Facilities Regulation
Canadian Nuclear Safety Commission
280 Slater Street, P.O. Box 1046, Station B
OTTAWA ON K1P 5S9
haidy.tadros@canada.ca

Dear Haidy Tadros:

I am writing to provide a letter confirming responsibility for expenses associated with the remediation, monitoring and maintenance of the Gunnar Mine and Mill Site (the Site), until such time as the property enters Saskatchewan's Institutional Control Program (ICP).

I confirm that the Ministry of Energy and Resources (ER) has been assigned the responsibility for the management of all activities on the Site on behalf of the Government of Saskatchewan. The Saskatchewan Research Council has been contracted by ER to act as project manager for the remediation at the Site. As the legal landholder, the Government of Saskatchewan expressly commits to cover all aspects of decommissioning, reclamation as well as monitoring and maintenance of the Site as required under a Canadian Nuclear Safety Commission licence. It is ER's intent to remediate the Site to an acceptable condition wherein the Site qualifies for a licence exemption and may enter Saskatchewan's ICP.

This commitment is made without prejudice to the rights of the Government of Saskatchewan to continue to pursue the Government of Canada to share the costs to remediate equally at the Site pursuant to a Memorandum of Agreement entered on September 22, 2006.

Sincerely,

Cory Hughes
Assistant Deputy Minister

cc: Jesse Merilees, Vice President, Environment and Biotech, Saskatchewan Research Council
Kirk Brecht, Executive Director, Ministry of Energy and Resources
Aaron Saufert, Director, Ministry of Energy and Resources

Attachment F:

Community Engagement Table

This attachment was removed as it is subject to a confidentiality request.