NexGen Energy Ltd.

Welcome

Thank you for attending the June 2023 Community Information Session for the Rook I Project

We are hosting this event to:

- Update you on the Rook I Project
- Provide you with information and a status update on all Rook I Project regulatory requirements, including the environmental assessment (EA) and licensing
- Provide details on the Environmental Impact Statement (EIS)
- Answer your questions and get your feedback on the Rook I Project

We are happy to be here!

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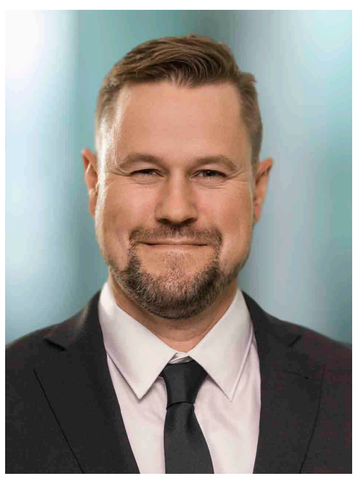
The NexGen Community Information Session Team



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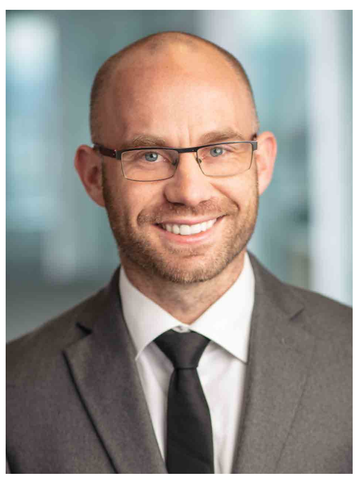
Vice President, Community



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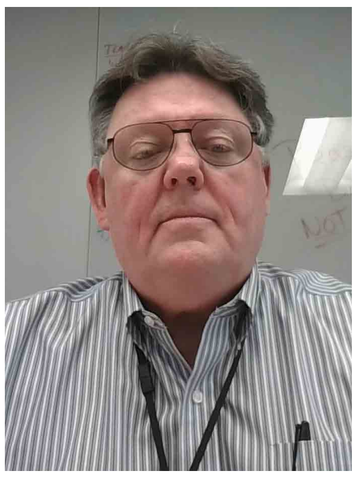

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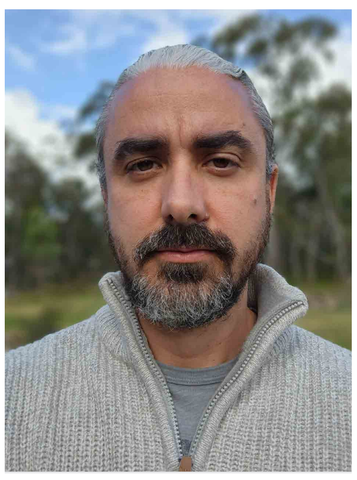

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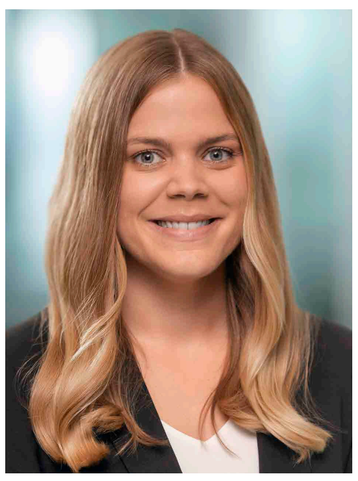

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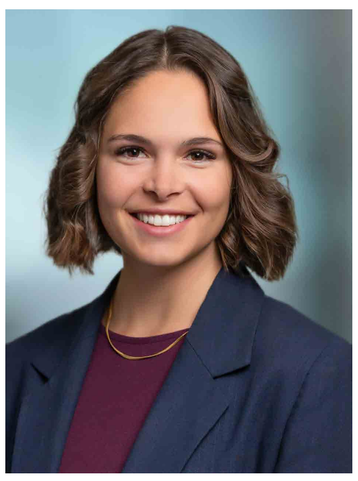
Engagement Lead



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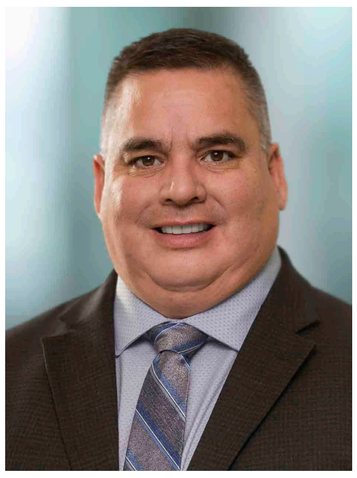

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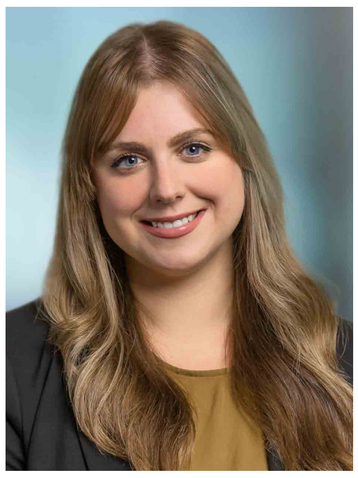

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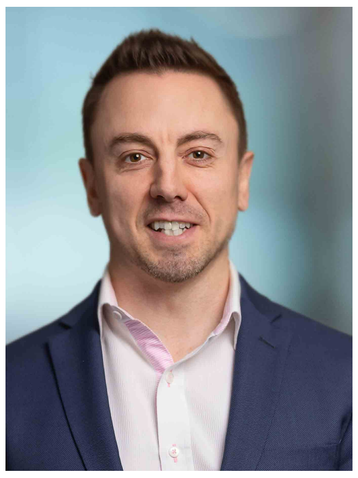

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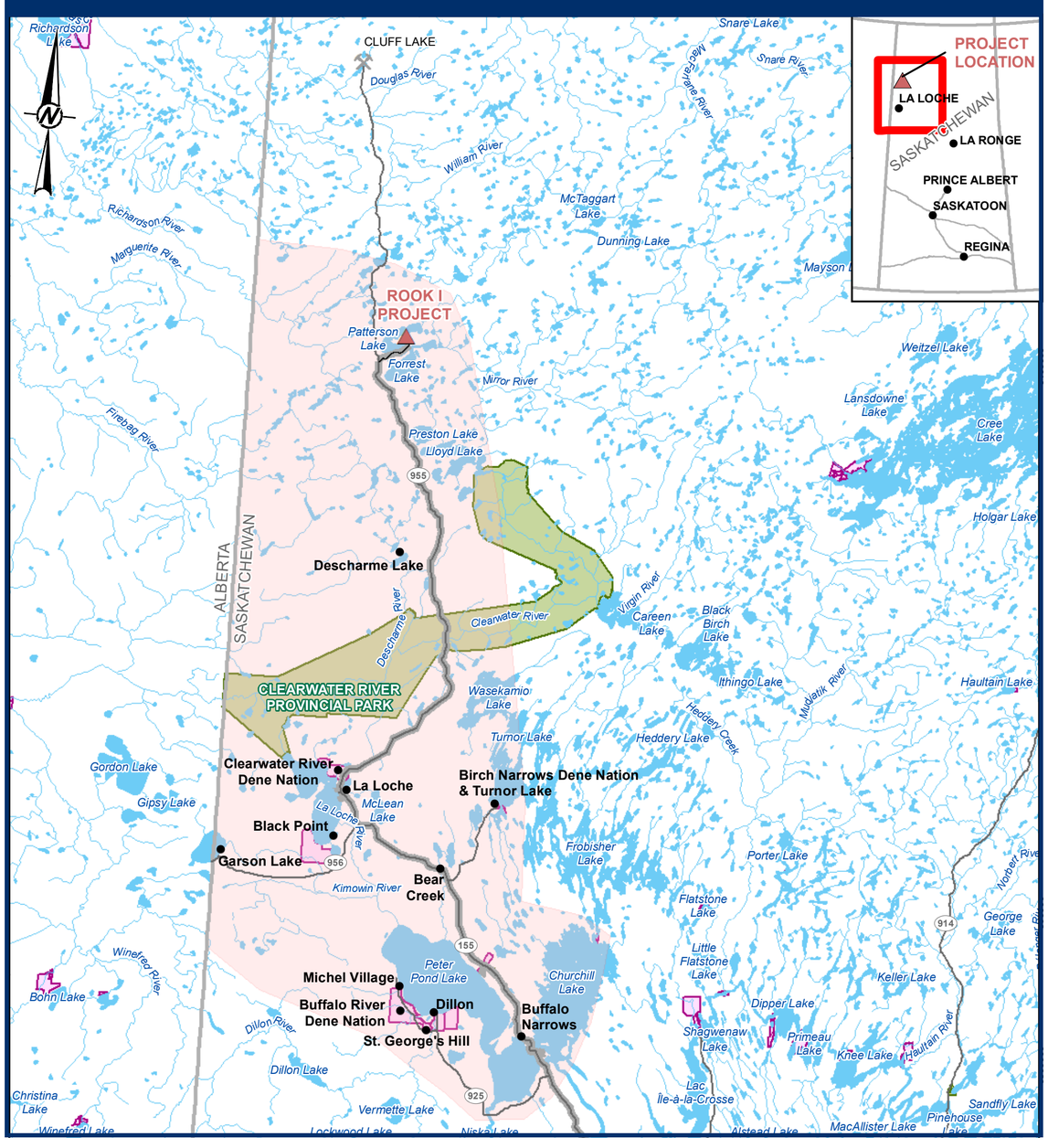
About NexGen

Location of the NexGen Rook I Project in Northwestern Saskatchewan



local priority area communities

NexGen is driven by the vision to become a global leader in delivering uranium for the world's current and future clean energy needs.

Guided by the values of honesty, respect, resilience, and accountability, NexGen's core values are foundational, defining how the team operates and influencing how decisions are made.

NexGen is setting elite standards for:

- Human health and safety
- Environmental performance
- Supporting communities
- Regulatory compliance

The Rook I Project is located 40 km east of the Saskatchewan-Alberta border, 130 km north of La Loche, and 640 km northwest of Saskatoon.

NexGen acknowledges and respects the interests and aspirations of those potentially affected by the Project and will continue to maximize benefits for community members in a transparent, trusting, and sustainable manner.

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Rook I Project Overview

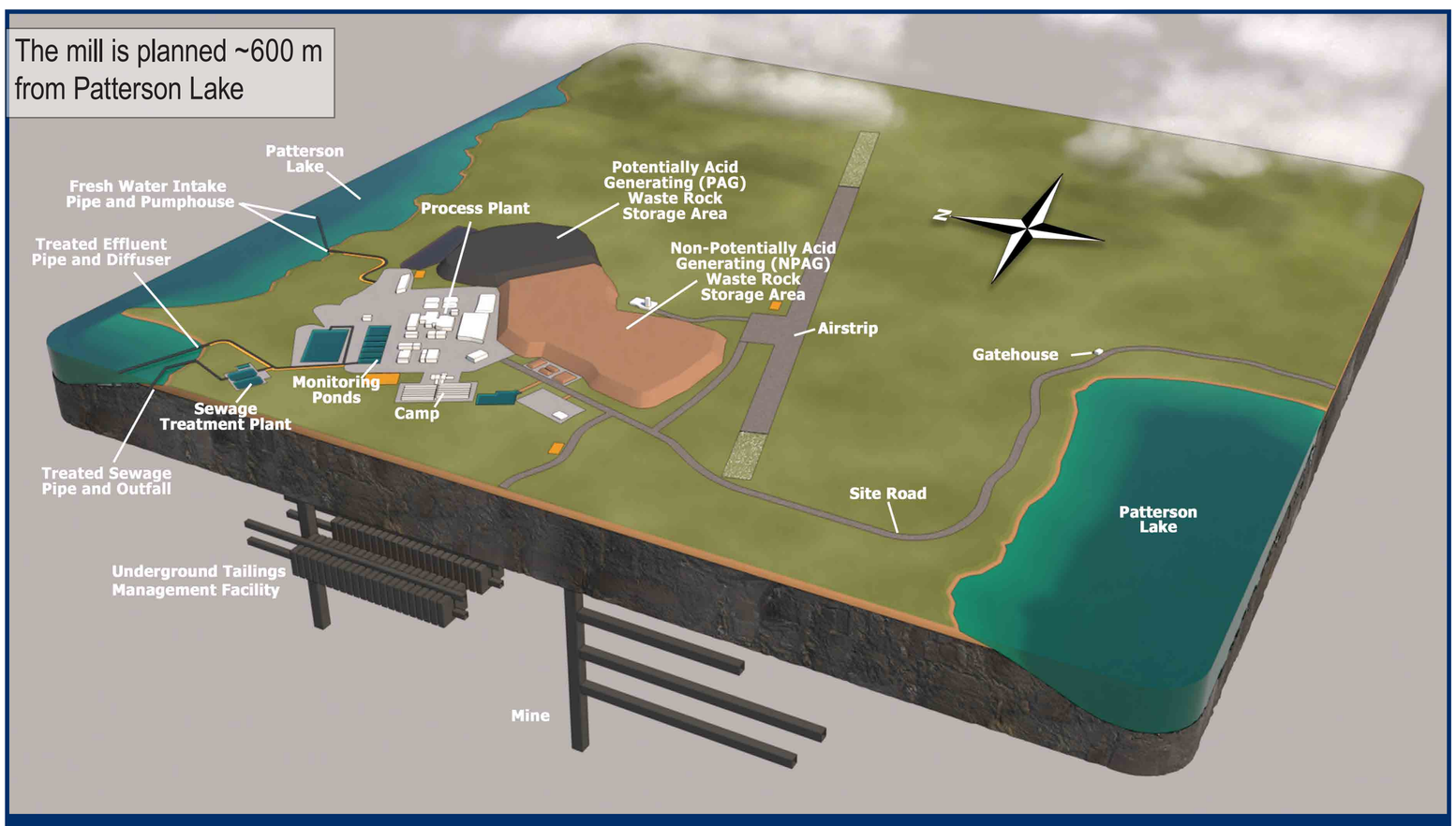
The Rook I Project is NexGen's proposed new uranium mining and milling operation in northwestern Saskatchewan. The Project is located entirely on Provincial Crown Land within Treaty 8 territory and the Métis Homeland, and adjacent to Treaty 10 territory.

The Project, which is 100% owned by NexGen, includes facilities to support the extraction and processing of uranium ore from the high-grade uranium deposit known as Arrow. NexGen has completed exploration, geotechnical, and environmental and community studies since 2013 to define the resource and plan how to best develop the Project.

The underground mine workings are within competent (very strong and hard) basement rock and include the mine and an underground tailings management facility. The mill location is on surface, about 600 m from Patterson Lake. Mining and supporting infrastructure are located above ground as seen in the graphic.

The anticipated lifespan of the Project is estimated to be 43 years and includes Construction, Operations, and Decommissioning and Reclamation (i.e., Closure) phases. Monitoring is incorporated through all phases of the Project to verify environmental performance.

Direct jobs are estimated to total 350 during the 4-year Construction period and 490 during the 24 years of Operations. The Project will be fly-in/fly-out with most employees on a two-week rotation. Work at site is planned to be two 12-hour shifts, seven days per week.



Rook I Project Layout
For Illustrative Purposes Only — Underground Infrastructure Not To Scale

NexGen's vision is to become a world leader in delivering clean energy fuel for the future. With this in mind, the company has approached the Project with consideration of current and future generations and with a philosophy founded on sustainable and responsible resource development.

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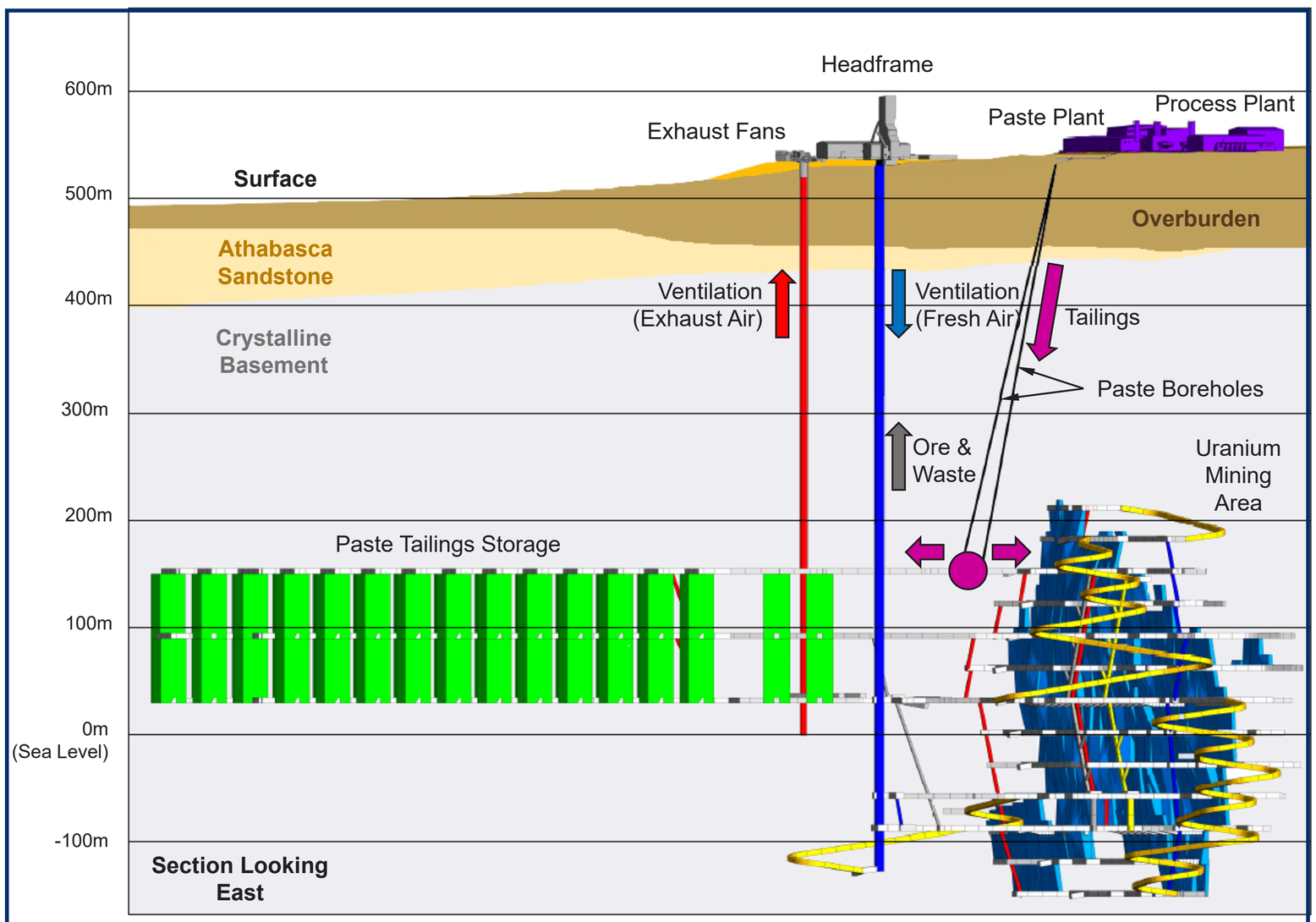
Mining Overview

The mine plan incorporates a conventional underground mine using the longhole stoping mining method. This is a method of mining where holes are drilled by a production drill to a predetermined pattern, the rock is blasted, and the ore is collected for processing.

The Project design has two vertical shafts used for ventilation, accessing underground areas, and transporting materials.

Mined rock is hoisted from underground and brought to surface. Rock that is uneconomic would be used either as construction material (e.g., to build roads) or placed on surface in long-term storage areas. Ore is processed on surface to produce uranium concentrate.



Simplified Rook I Project Operations Overview
Graphics for Illustration Only — Not Drawn to Scale

Uranium concentrate produced on site will be transported off site to facilities for further enrichment and eventual use in nuclear power reactors.

ORE PROCESSING

up to
30 Mlbs
annual production
of uranium concentrate

1,300 tonnes
of ore processed per day

97.6%
process recovery

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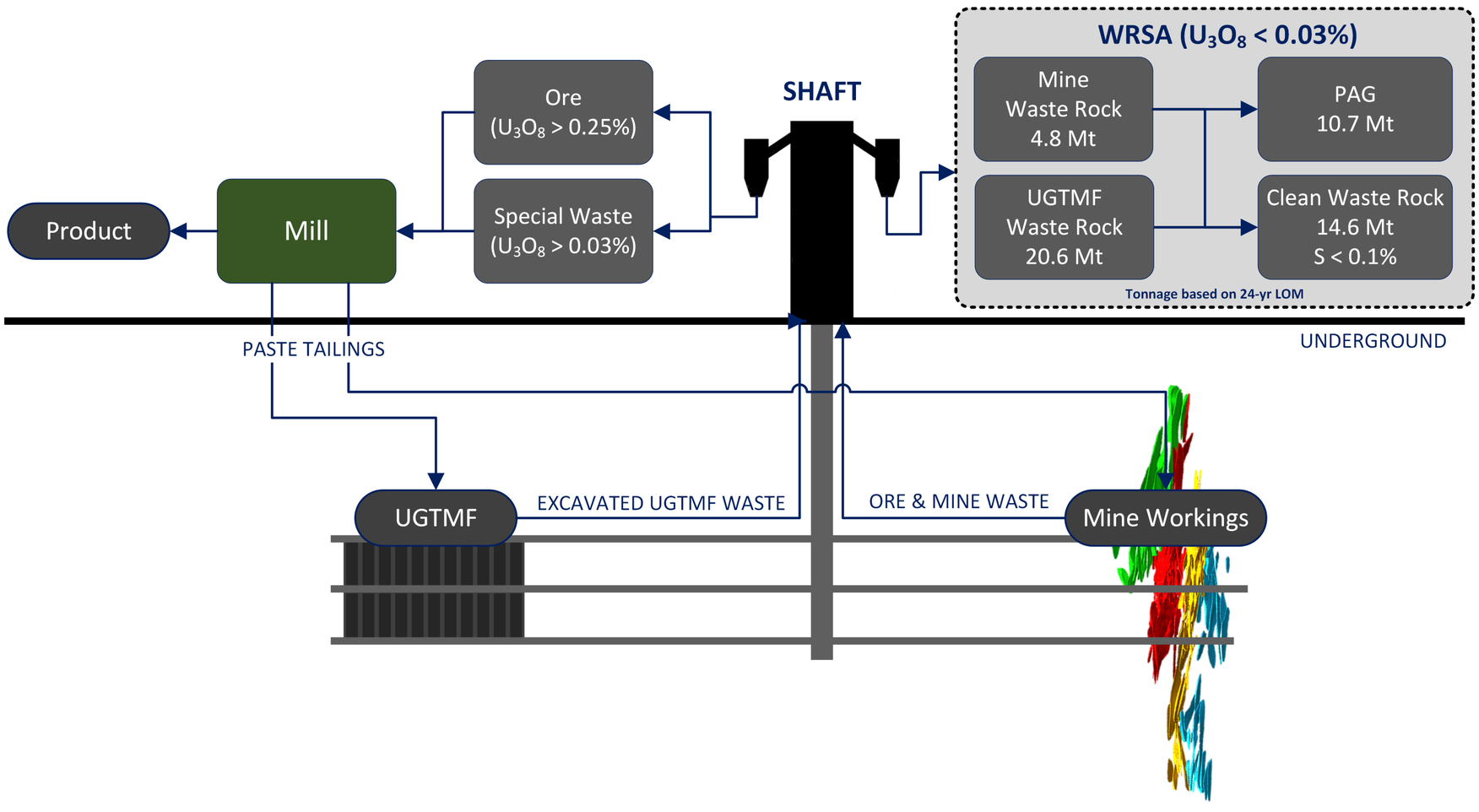
Underground Tailings Management Facility



Simplified Rook I Ore and Waste Distribution

Graphics for Illustration Only
Not Drawn to Scale

LOM	Life of Mine
WRSA	Waste Rock Storage Area
PAG	Potentially Acid Generating Waste Rock
UGTMF	Underground Tailings Management Facility

Tailings are the materials left over after processing has been completed and the uranium has been removed from the ore.

All tailings for the Rook I Project will be stored underground; there will be no tailings remaining on the surface.

Tailings will be combined with cement in a paste plant and pumped underground. Approximately half of the cemented tailings are planned to be backfilled in areas excavated for mining. The other half will be pumped into underground chambers specifically mined to create space for cemented tailings storage as part of the UGTMF. The UGTMF also safely stores any residues from the effluent treatment plant.

The decision to store tailings underground was determined through a detailed evaluation process. This included evaluating engineering requirements, human and environmental protection measures, input and feedback from Indigenous Nations and communities, and regulatory requirements.

Disposal of tailings underground reduces potential effects to the environment and allows for ongoing decommissioning and reclamation during the Operations Phase of the Project, setting a new global standard for environmental mine management.

The underground storage of tailings will require mining waste rock and storing it on the surface.

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Uranium

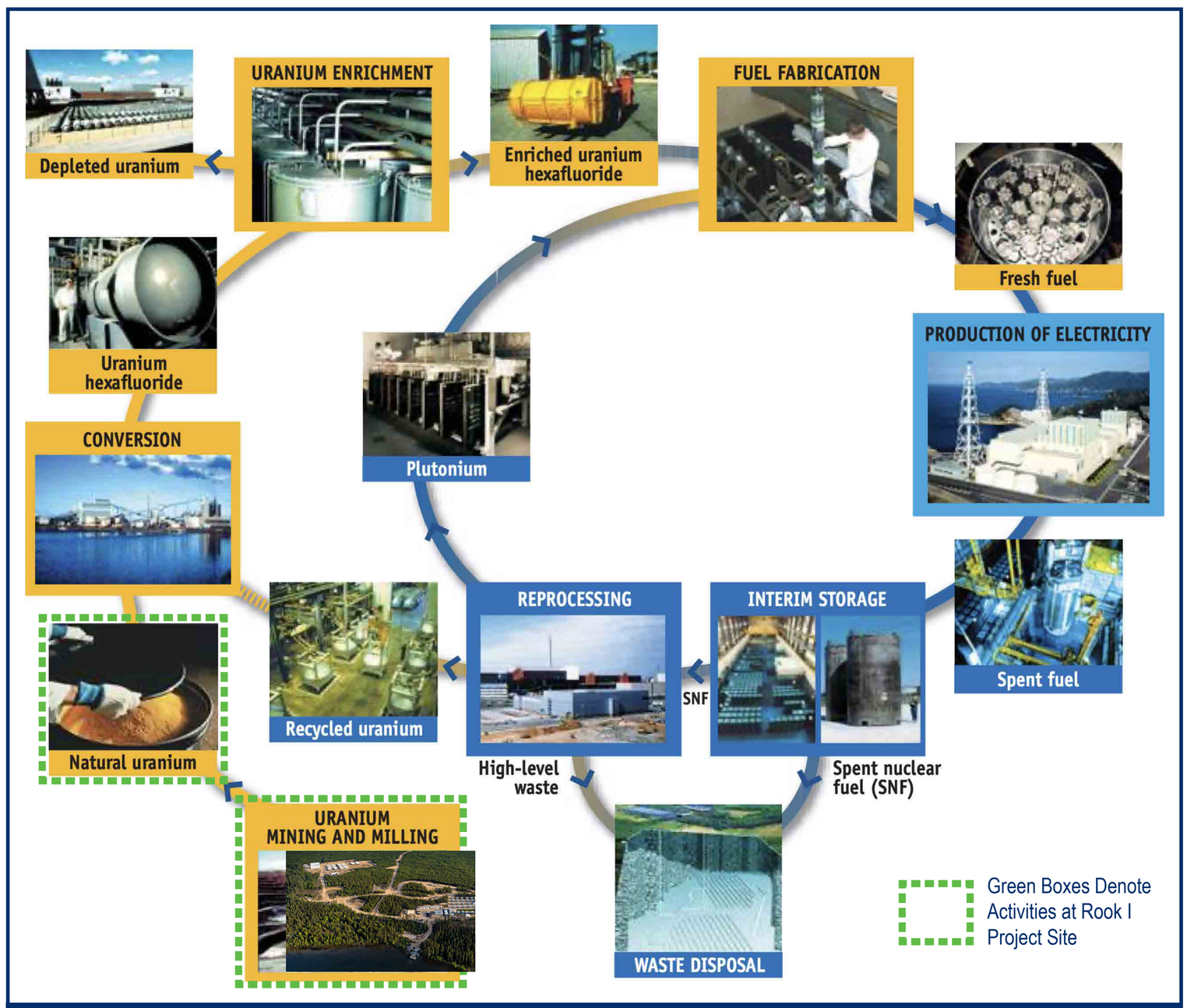
The Mineral

Uranium (U) is a naturally occurring radioactive element that is mined and processed to make fuel for nuclear medicine, nuclear research reactors or power reactors.

- Uranium has an average concentration of 2.8 parts per million in the Earth's crust
- Traces of uranium occur almost everywhere. Uranium is more abundant than gold, silver, or mercury, about the same as tin and slightly less abundant than cobalt, lead, or molybdenum
- Vast amounts of uranium also occur in the world's oceans, but in very low concentrations

The Need for Uranium

- A significant increase in uranium is needed to support the transition to nuclear energy, which has lower carbon emissions than fossil fuels (Nuclear Energy Agency and the International Atomic Energy Agency, 2020)
- The International Energy Agency forecasts indicate that the global demand for electricity could increase by up to 90% between 2018 and 2040



The Nuclear Fuel Cycle
Source: Nuclear Energy Agency (OECD)

Uranium in Canada

- Canada is one of the world's largest producers of uranium
- Canadian uranium is only mined and processed to make fuel for nuclear research reactors or nuclear power reactors
- The CANDU (Canada Deuterium Uranium) is a Canadian pressurized heavy-water nuclear reactor used to generate electric power

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Uranium Safety

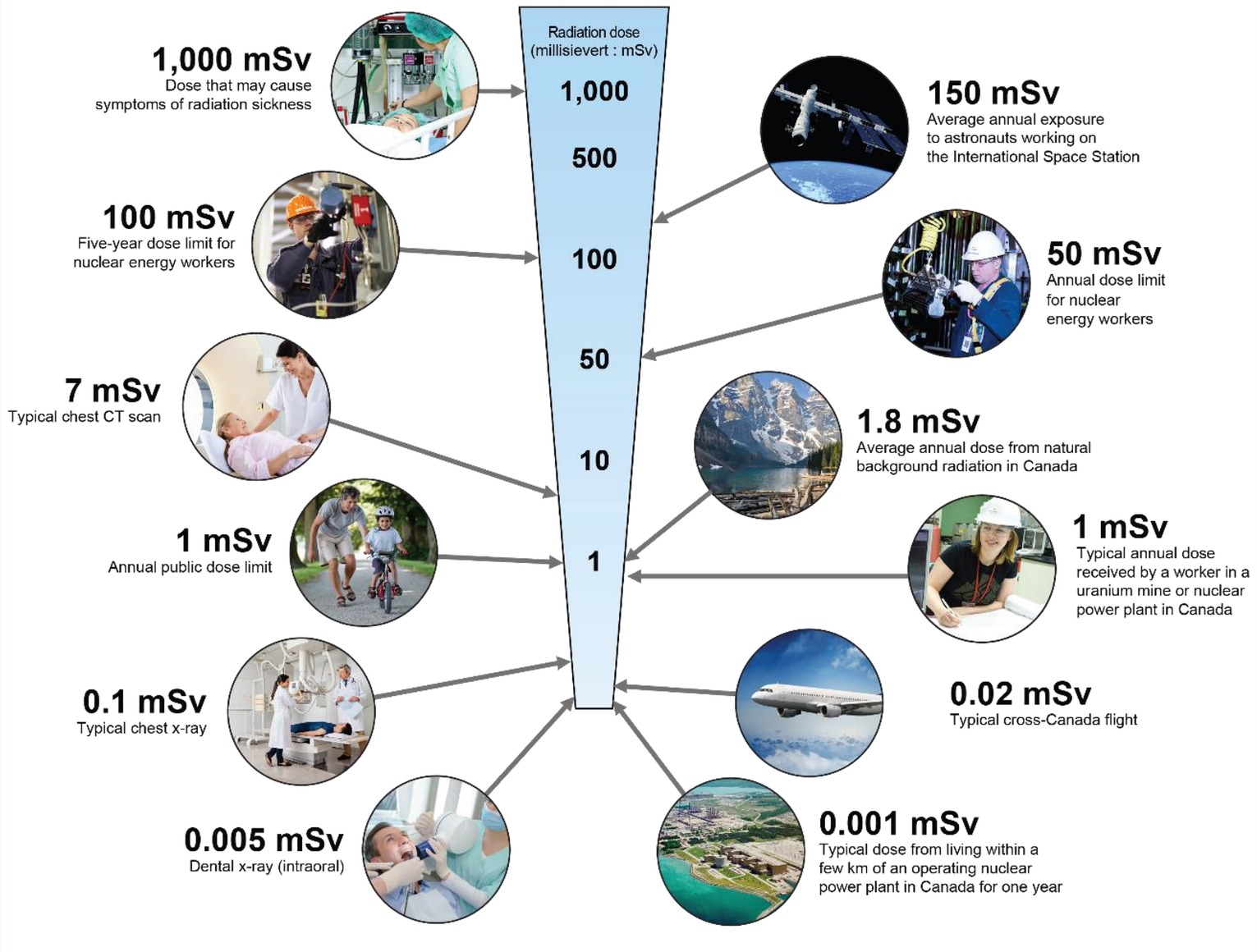
Radiation

Radiation is energy in the form of moving waves or streams of particles.

- Radioactive materials are present in soil, rocks, the air we breathe, the water we drink, and even in our own bodies
- These sources of natural radiation make up the bulk of the total radiation we are exposed to every day
- We are also exposed to artificial radiation from various sources, such as nuclear medicine and commercial products like smoke detectors
- The Canadian Nuclear Safety Commission (CNSC) and the Province of Saskatchewan set radiation dose limits for nuclear energy workers and the public to protect human health and safety

Comparison of Radiation Doses

Source: Canadian Nuclear Safety Commission



Workers at uranium sites may be exposed to different types of radiation from drill core, ore, process solutions and materials, and tailings. Types of radiation that are naturally emitted include:

- Gamma rays
- Alpha particles
- Beta particles

Safely managing radiation at a uranium site involves practices such as ventilation, time minimization, increasing distance from radiation sources, use of shielding, and regular monitoring and reporting. These measures help to keep radiation doses to all people as low as reasonably achievable and well within regulatory limits.

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Transportation Risk Assessment

What we heard

Potential concerns such as transportation of materials through communities and potential environmental effects were frequently noted through the key person interview program.

Highway maps were provided to Joint Working Groups (JWGs) to enable community feedback on areas of concern (environmental, health, and cultural) for accidents and spills.

Feedback from the JWGs indicated locals feel Highway 155 is of poor quality and is a safety issue for local residents.

A focus of the EA

A baseline traffic study was conducted to characterize existing traffic volumes and trends on the secondary highways leading to the Rook I Project site, specifically Highway 155 and Highway 955.

What did the studies tell us?

The study describes the average annual daily traffic, with a focus on truck traffic along Highway 155 and Highway 955.

- The portion of Highway 155 with the highest average annual daily traffic (1,510) is found immediately south of the community of Buffalo Narrows; the portion with the highest average annual daily traffic on Highway 955 is in the town of La Loche (2,000 vehicles)
- Highway 155 had more traffic accidents compared to the Saskatchewan average on Provincial highways

The Project access road receives traffic from the Project, Indigenous and non-Indigenous land and resource users, and other commercial operations.

How did we assess the effects?

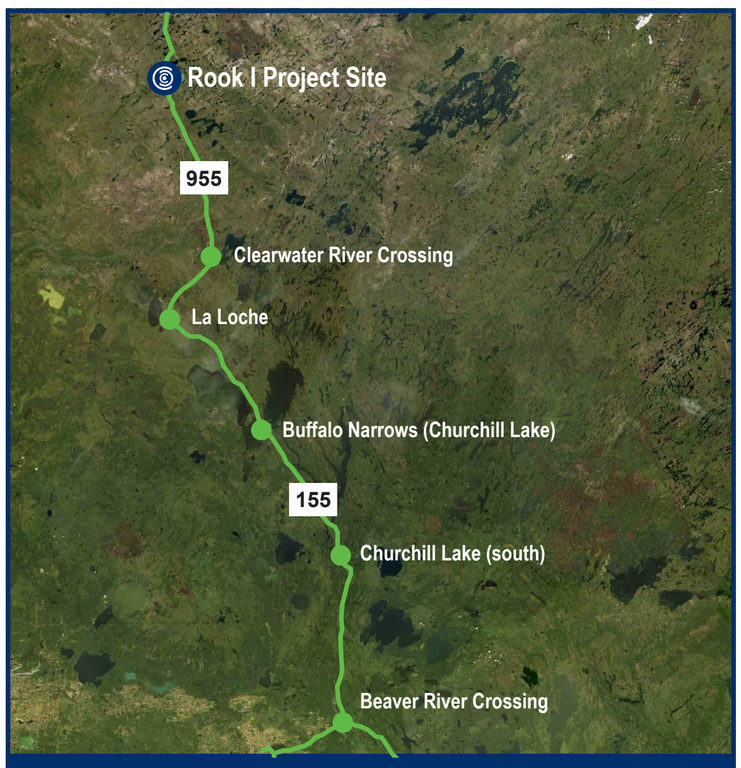
Traffic volumes, incidents and accidents, and road use patterns were assessed to determine the effects of the Project on traffic.

The results

The risks from Project-related transportation activities were deemed to be possible; however, given the proposed safeguards (e.g., driver training, speed limits, adjusting speed according to conditions, spill and emergency response planning, pedestrian and cyclist priority on roadways), risks were assessed to be reduced to as low as reasonably possible.

What are we doing?

Maintenance of public roadways is the responsibility of the Government of Saskatchewan and NexGen is working with local communities, government representatives, and the regional planning committee to make sure that community concerns are heard, and Project needs met.



Access to the Rook I Project Site via Highways 155 and 955

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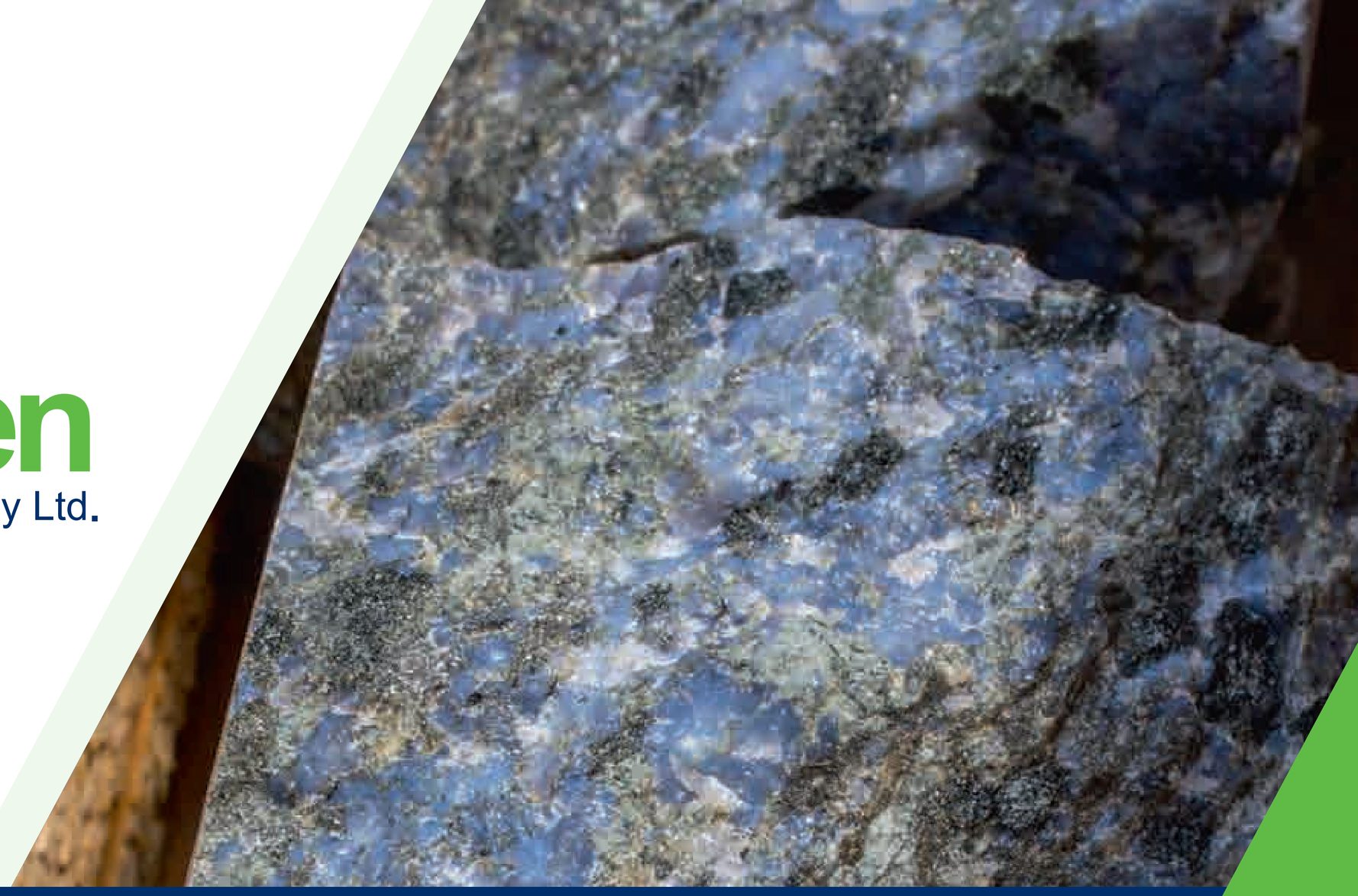


Life of Mine

The Rook I Project will include the construction, operation, and closure (decommissioning and reclamation) of the mine and mill facilities.

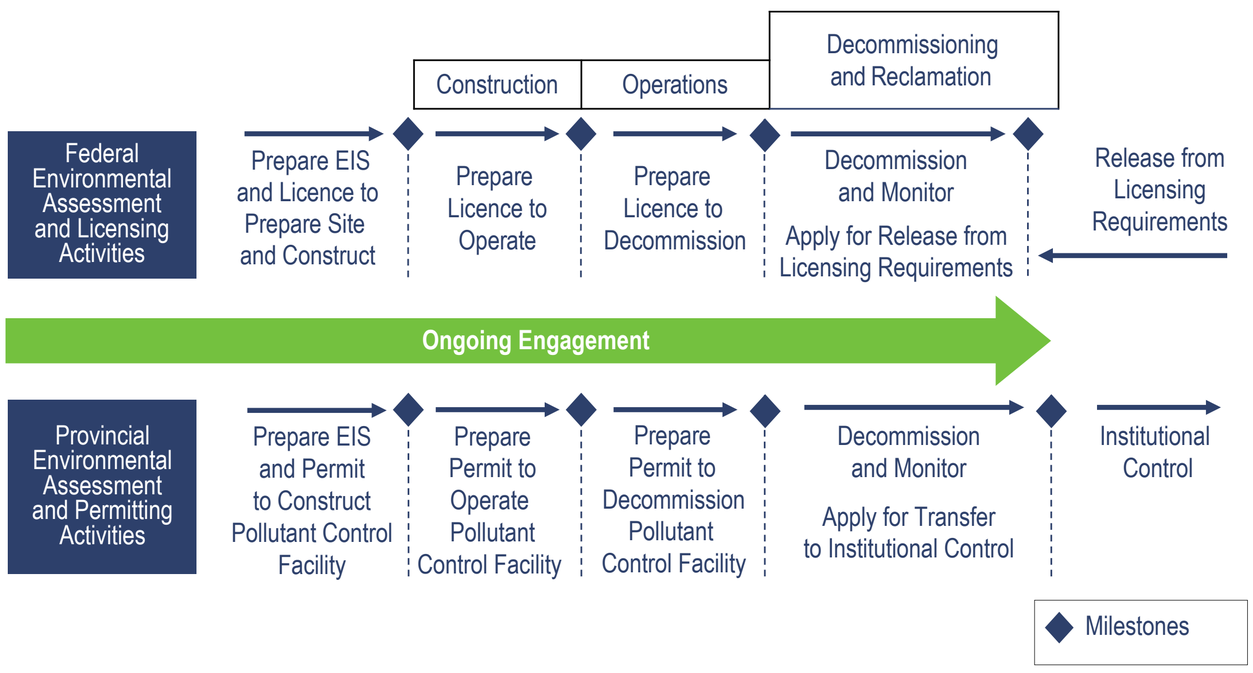
Construction (~4 years)

- Land clearing, site preparation, and construction of facilities and infrastructure
- Underground shaft/mine development
- Access road and site road upgrades
- Transportation of personnel and materials to and from the site
- Employment and contracting
- Infrastructure development (e.g., roads, airstrip, camp, maintenance shop, offices)

Operations (~24 years)

- Mining and processing operations
- Underground tailings deposition
- Waste rock, special waste rock, and ore management
- Water management and treated effluent discharge
- Transportation of personnel and materials to and from the site

NexGen Rook I Project Timeline



Decommissioning and Reclamation (~15 years)

Active Closure Stage (~5 years):

- Backfilling mine workings
- Removal of physical infrastructure
- Recontouring and revegetating disturbed areas
- Waste disposal or removal
- Water management and treated effluent discharge (if required)
- Any other activities deemed necessary to achieve decommissioning objectives and return the site to a safe and stable condition prior to the Transitional Monitoring Stage

Transitional Monitoring Stage (~10 years*):

- Environmental monitoring against performance criteria
- Once performance criteria have been fully demonstrated, an application to be released from the CNSC licence will be submitted to the CNSC
- Upon approval, the land will be transferred back under Provincial management through the Institutional Control Program, and continue to be monitored by that Program

**Nominally 10 years; however, this is dependent on the achievement of performance criteria.*

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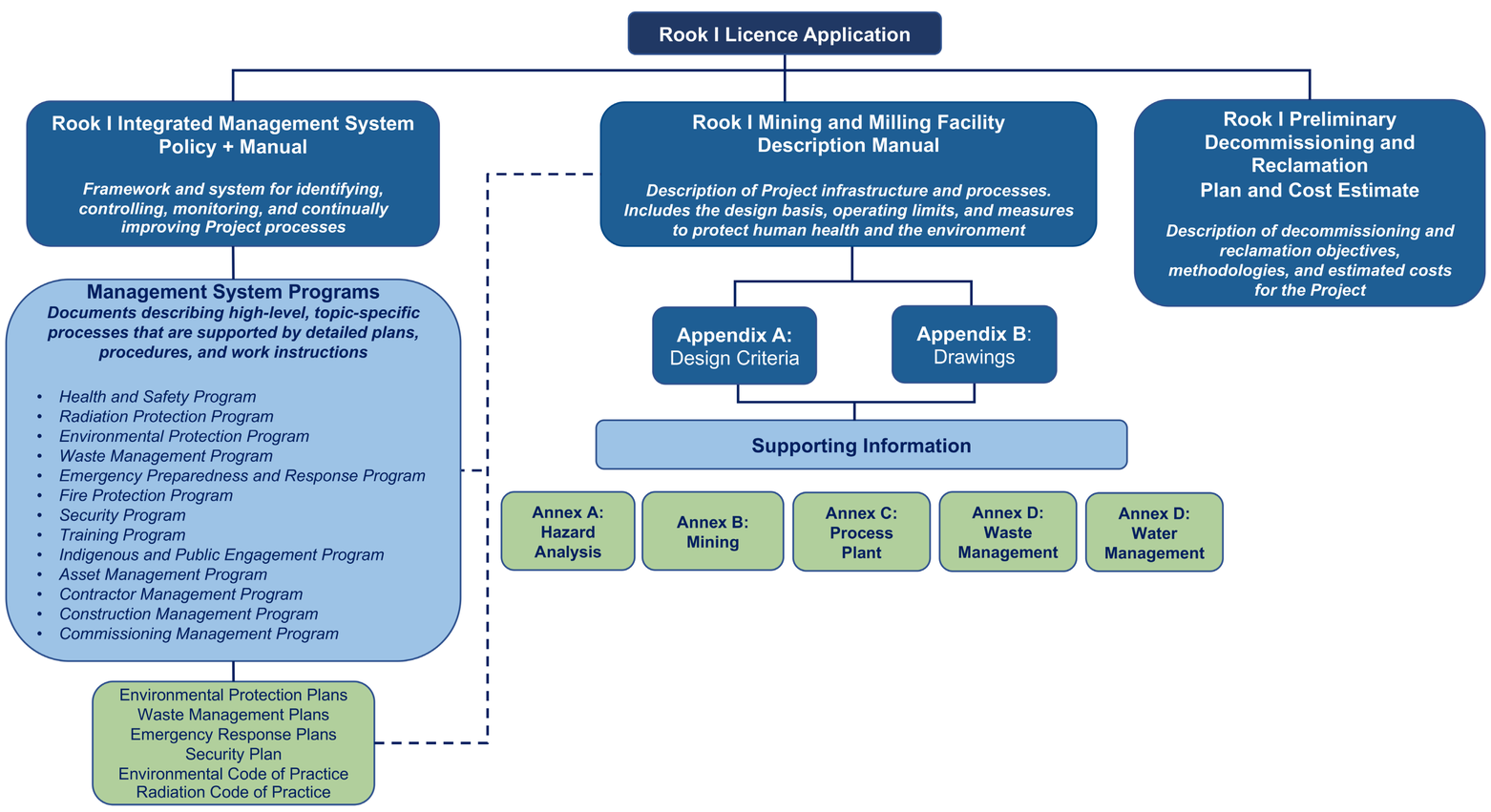
Licensing

- The Canadian Nuclear Safety Commission (CNSC) is responsible for regulating and licensing all existing and future uranium mining and milling operations in Canada. Licensing is one of many approval processes required for the Rook I Project
- Through the licensing process, NexGen provides information on the management system processes that govern how we work, the technical details of what we will build and operate, and plans for closure to demonstrate the capacity and capability to safely and reliably develop and execute the Project
- The CNSC is a lifecycle regulator, meaning that the CNSC will provide ongoing oversight through all stages of the Project from Construction through to Closure
- NexGen is proactively engaging with local Indigenous Nations and communities to share information on topics of interest and to receive feedback

Licensing Process



- The licence application for the Project was initiated in February 2019 and has been advanced in parallel with the environmental assessment for the Project
- The current licence application is for site preparation, construction, and commissioning of the Project
- Following several years of submitting information to the CNSC for review and feedback, the Rook I Project licence application is in the advanced stages of development
- The licence application process will culminate in a licensing hearing, during which members of the public will have an opportunity to participate
- NexGen must receive a positive environmental assessment decision from both the Provincial and Federal regulators and a positive licensing decision from the Federal regulators before the Project is fully approved

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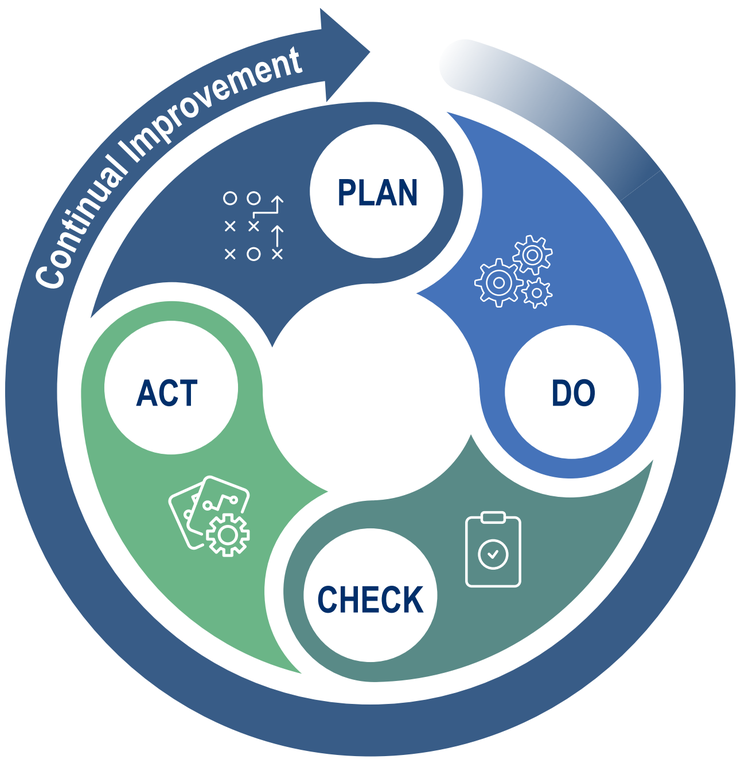
Integrated Management System

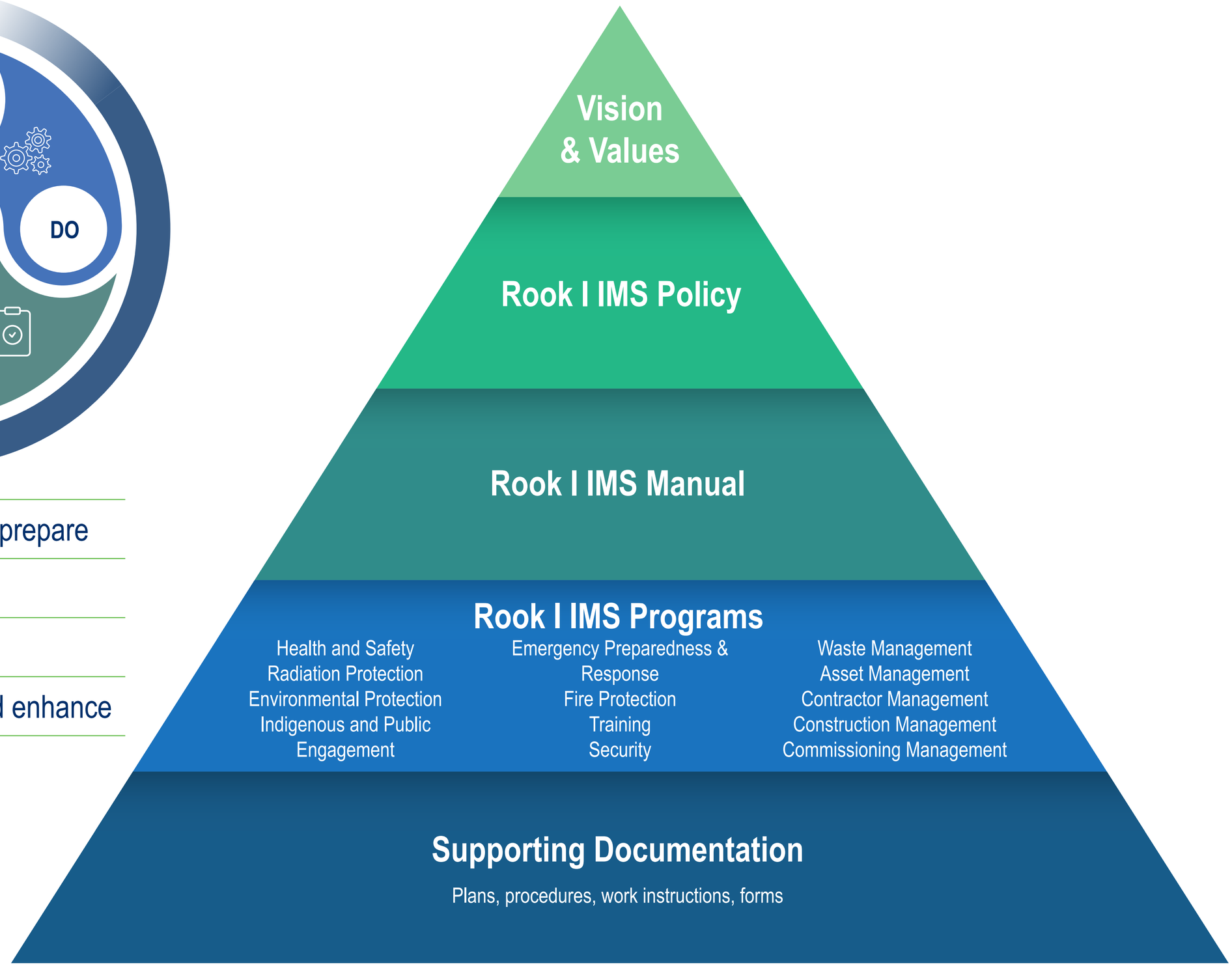
A management system is a framework of processes, procedures, and practices used to fulfill tasks and achieve all objectives safely and consistently. Personnel, equipment, organizational culture, and documented policies and processes are all integrated into one management system. An Integrated Management System is a requirement for CNSC licensing.

The Rook I Project's Integrated Management System (IMS) is foundational to successful health, safety, environmental, and community engagement activities.



Plan	Identify and prepare
Do	Perform
Check	Review
Act	Remedy and enhance

Rook I IMS Framework



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Engagement

Study Agreements

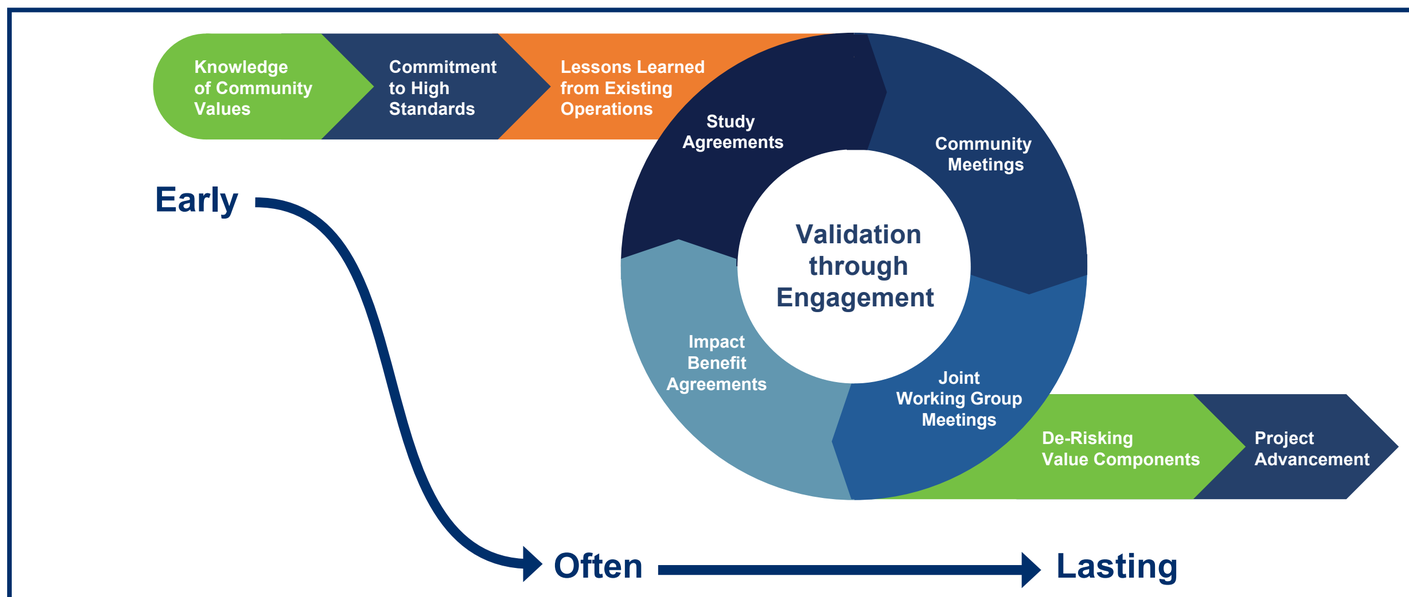
In 2019, individual Study Agreements were signed with:

- Clearwater River Dene Nation
- Métis Nation – Saskatchewan, including on behalf of Locals within Northern Region 2 (Clearwater Clear Lake)
- Birch Narrows Dene Nation
- Buffalo River Dene Nation

The Study Agreements defined a framework to work collaboratively through the environmental assessment (EA) process, including the provision of financial capacity for Indigenous Knowledge and Traditional Land Use studies and established Joint Working Groups (JWGs) for each Indigenous Nation to engage with NexGen on the Project EA and participate in reviews of technical information.

Traditional Land Use Studies

To understand land use in the area of the Project, NexGen provided the funds necessary to facilitate Indigenous Nations to undertake self-directed Indigenous Knowledge and Traditional Land Use studies.



Community engagement has been ongoing since 2013

Benefit Agreements

To date, NexGen has signed Benefit Agreements with Clearwater River Dene Nation (CRDN), Birch Narrows Dene Nation (BNDN), and Buffalo River Dene Nation (BRDN), and continues to advance discussions for a Benefit Agreement with Métis Nation - Saskatchewan (MN-S) on behalf of Locals within Clearwater Clear Lake.

The Benefit Agreements define the environmental, cultural, economic, employment, and other benefits to be provided to the communities with respect to the Project throughout its entire lifecycle.

Other Engagement Initiatives

- NexGen has a dedicated community-based Project Liaison Manager in La Loche; this individual works out of our La Loche office and is accessible for all community members
- NexGen sends regular engagement update letters to CRDN, MN-S, BNDN, and BRDN
- NexGen distributes regular community newsletters to the Local Priority Area (LPA)

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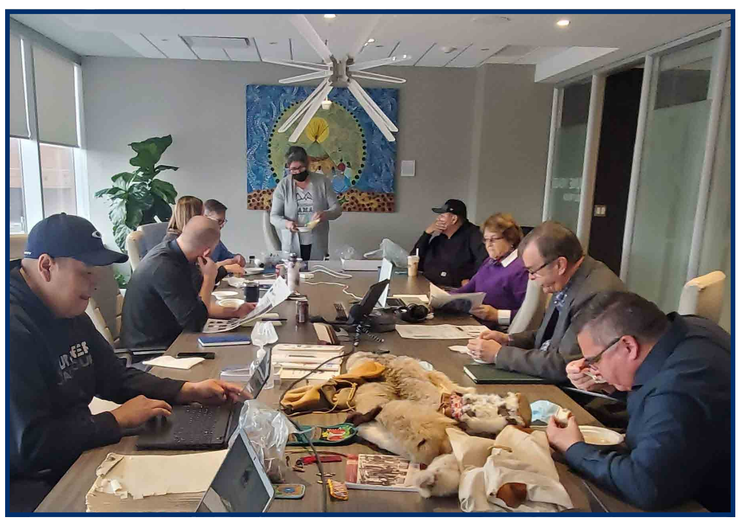
Joint Working Groups

The Joint Working Groups (JWGs) were formed through the Study Agreements established with each primary Indigenous Nation and have been implemented as the agreed-upon engagement pathway for the advancement of the environmental assessment (EA). JWG Members consist of NexGen staff and Indigenous Nations. Indigenous Nation Leadership selected their JWG participants with consideration for diverse representation, including Elders, youth, men and women, business owners, and traditional land users in the Patterson Lake area.

The JWGs represent an important engagement platform to allow for ongoing collaboration on elements of the Rook I Project, and to enable the incorporation of community members' views and Indigenous and Local Knowledge into the Project, where applicable.



The four JWGs are:

- Clearwater River Dene Nation JWG
- Métis Nation – Saskatchewan Northern Region 2 (Clearwater Clear Lake) JWG
- Birch Narrows Dene Nation JWG
- Buffalo River Dene Nation JWG

The JWGs facilitate collaboration between Indigenous communities and NexGen to ensure Indigenous views and knowledge are considered in relation to the Project. The JWGs meet routinely (as needed), with a minor disruption in 2020 due to the COVID-19 pandemic.

Since 2019 when the JWGs commenced, the following topics have been discussed:

- Project overview
- Outline of environmental assessment (EA) process
- Baseline studies
- Valued components
- Indigenous Nation culture and land use shares
- Indigenous Knowledge and Traditional Land Use studies
- Human health risk assessment overview
- Water assessment and management
- EA pathways
- Underground tailings management facility
- Caribou
- Traffic studies
- Surface lease agreement
- Socio-economic assessment
- Community well-being
- Traditional and wage economies
- Employment, business, and training opportunities
- Project update
- Regulatory process update
- Modelling and the EA process
- Project alternatives assessed
- End land use

The JWG activities with CRDN, BNDN, and BRDN have transitioned to be performed under the committees established under the Benefit Agreements, primarily the Implementation and Environmental Committees. The MN-S NR2 JWG continues to meet.

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Benefit Agreements

Benefit Agreements formalize NexGen's partnership with all local communities with the mutual objective to responsibly develop the Project. Through the Benefit Agreements, we continue to work together to build long-term opportunities that contribute to a sustainable future beyond the life of the mine. Under the Benefit Agreements, separate Implementation Committees (ICs) and Environmental Committees (ECs) have been formed with each primary Indigenous Nation.

Implementation Committees

- The ICs promote continued and regular communication, collaboration, and information sharing between NexGen and each Indigenous Nation and are responsible for implementing the Benefit Agreements and advancing each specific article under the Agreement
- NexGen and each Indigenous Nation have an Implementation Coordinator appointed, who is responsible for being the primary point of contact for the IC and overseeing its activities
- The IC is also responsible for the discussion and implementation of NexGen-specific education, training, employment, and contracting opportunities

Environmental Committees

- The ECs oversee and monitor the environmental performance of the Project and collaboratively work together on the regulatory and environmental aspects that are related to the Project
- The ECs also:
  - collaborate on the Provincial and Federal regulatory processes;
  - provide feedback on the environmental protection and monitoring programs;
  - review and participate in environmental protection measures and preventative actions; and
  - participate in Rook I site visits
- NexGen and each Indigenous Nation have an appointed Regulatory Lead who is responsible for being the primary point of contact for the EC and supporting its activities

Indigenous Monitors

- As part of NexGen's early engagement on the Project, NexGen heard and understood the importance of having community-led environmental monitoring
- As part of each of the Benefit Agreements, NexGen funds a full-time independent Indigenous Environmental Monitor that is selected by each primary Indigenous Nation (i.e., up to one environmental monitor per Indigenous Nation)
- The Indigenous Monitors have unrestricted environmental monitoring opportunities, including independent environmental sampling for the life of the Project (i.e., through Construction, Operations, and Closure)
- The Indigenous Monitors regularly report to and attend all EC meetings, and also participate in community meetings to report openly on the environmental performance of the Project to community members

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Regulatory Process

Transparent — Thorough — Inclusive

Uranium and nuclear projects in Saskatchewan are subject to both Federal and Provincial environmental assessment (EA) processes, and also require Federal and Provincial licences, approvals, and permits.

Engagement with local Indigenous Nations and communities has been ongoing since 2013 and studies to understand the existing conditions at the site and in the surrounding area have been ongoing since 2015, with specific focus on air, water, land, and wildlife.

The EA process formally commenced on May 2, 2019 following Federal and Provincial acceptance of the Rook I Project Description submitted by NexGen. At that time, the Canadian Nuclear Safety Commission (CNSC) and Saskatchewan Ministry of Environment (ENV) confirmed that an EA would be required under the *Canadian Environmental Assessment Act*, 2012 (Federal) and *The Environmental Assessment Act* (Provincial).

Saskatchewan Ministry of Environment

In May 2022, NexGen submitted an Environmental Impact Statement (EIS), or EA application, to both the CNSC and ENV.

The EIS has undergone Provincial technical review and Federal technical and public review. NexGen is now working to respond to all comments submitted from Indigenous Nations, stakeholders, and members of the public.

In addition to comments received during the public review of the EIS, meaningful engagement with Indigenous Nations and local communities will continue to be an important part of the EA process.

The CNSC and ENV are conducting the Federal and Provincial review processes, and use a cooperative approach whenever possible. Although the CNSC and ENV cooperate, separate requirements still apply and must be satisfied with respect to the acts, regulations, and guidelines in place for each jurisdiction.

Feedback from Indigenous Nations and community members can be provided directly to any of the CNSC, ENV, and NexGen through the EA process

Both the CNSC and ENV are lifecycle regulators and will oversee the Project through Construction, Operations, and Closure (Decommissioning and Reclamation). The ongoing EA and licensing processes are the first of many regulatory applications under this lifecycle regulatory oversight approach.

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Environmental Assessment Process

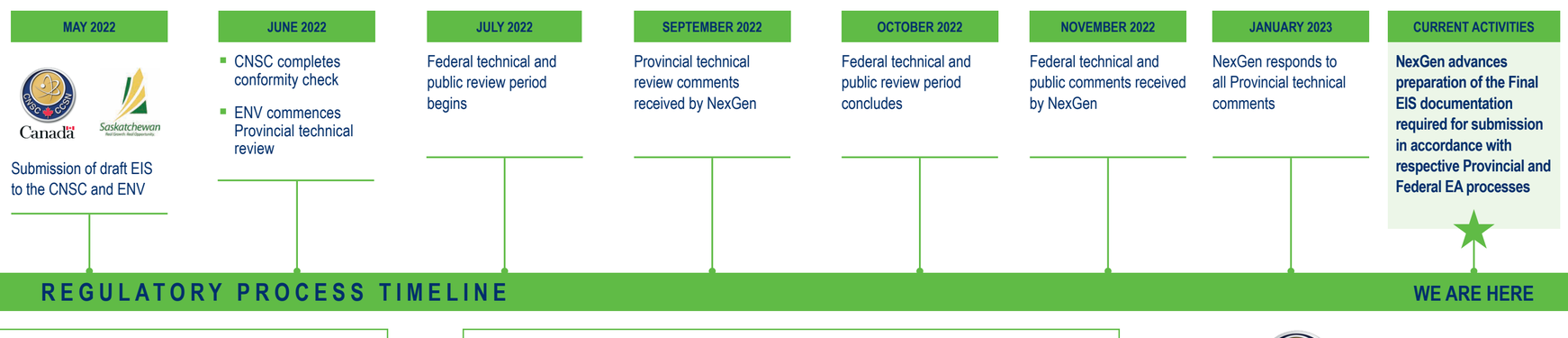
The Rook I Project is subject to both Provincial and Federal Environmental Assessment (EA) processes.

- An EA is a process used to understand the potential environmental and social effects of a proposed project. This process happens before any decisions about constructing a project are made
- The EA for the Project is subject to the Canadian *Environmental Assessment Act*, 2012 (CEAA 2012) and The *Environmental Assessment Act* of Saskatchewan

NexGen prepared an Environmental Impact Statement (EIS) in support of the EA for the Project. The EIS is the report that summarizes all of the work completed from the collection of baseline data (ongoing since 2015), through to the design of the Project, and the 'findings' of the EA.

In May 2022, NexGen submitted the draft Environmental Impact Statement (EIS) for the Rook I Project to the Federal and Provincial regulators. While the Federal and Provincial regulatory processes are similar, the CNSC and ENV have different processes for their respective technical review and public review activities, and for making a final decision on NexGen's EA application. To date, the draft EIS has undergone the Federal technical and public review, as well as the Provincial technical review.

There are several opportunities throughout the regulatory process for members of the public to provide feedback on the Project. There is also funding available for members of the public to participate.

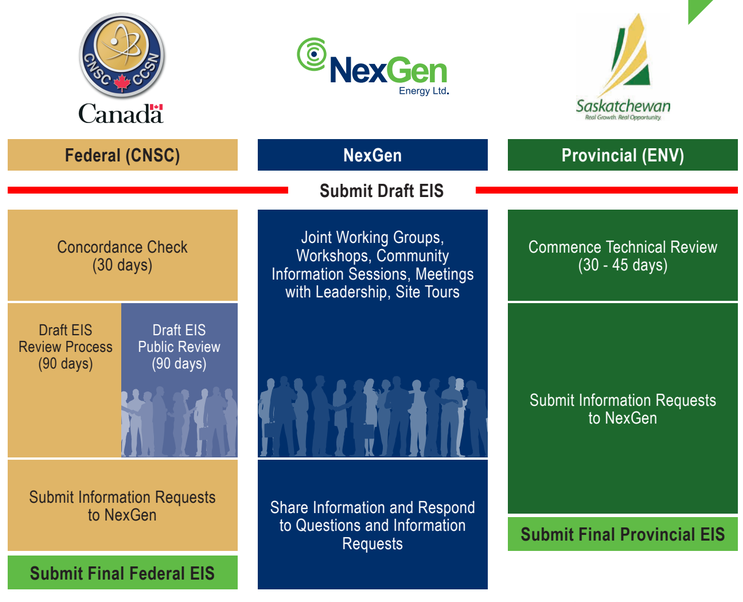


What is Next in the Federal Review Process?

- NexGen finalizes responses to all technical and public review comments
- CNSC accepts NexGen's technical comment responses and NexGen submits a Final EIS to the CNSC
- CNSC staff develop an "EA Report" for public review
- CNSC Commission members conduct a public hearing
- CNSC decides whether to approve the Project

What is Next in the Provincial Review Process?

- ENV coordinates public review of NexGen's Provincial Final EIS
- ENV staff make a recommendation to the Saskatchewan Minister of Environment
- Saskatchewan Minister of Environment decides whether to approve the Project EA



Public Engagement Opportunities on the Draft EIS

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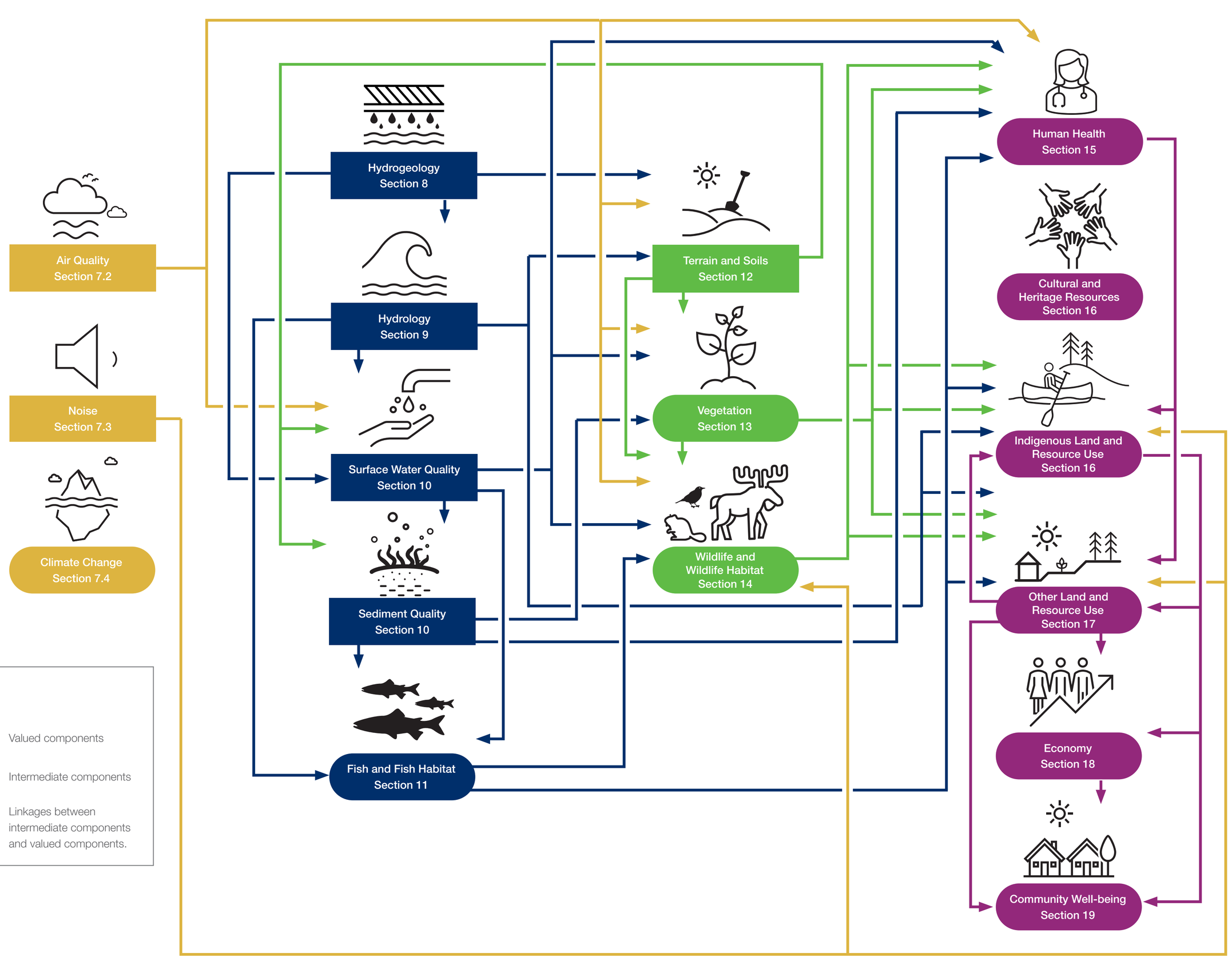
Environmental Assessment Process - Master Linkage Diagram

ATMOSPHERE

WATER

LAND

PEOPLE



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Human Health

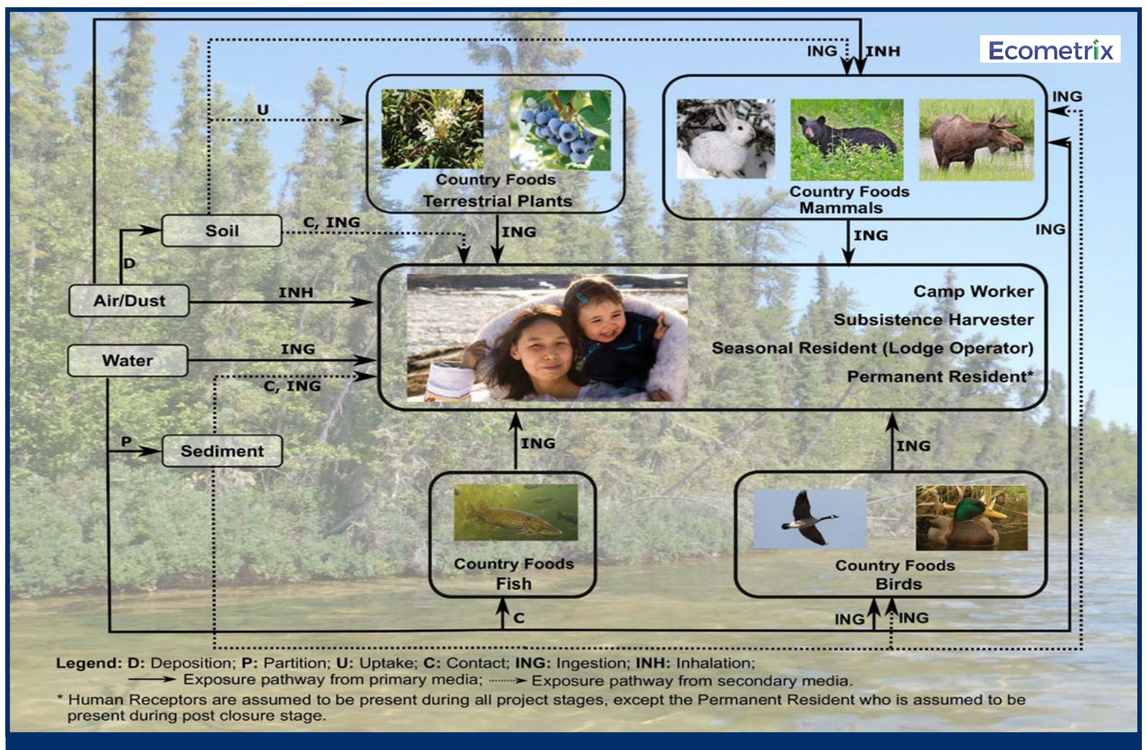
A focus of the EA

Information was collected on the various ways in which people could be exposed to contaminants (also known as exposure pathways). For example, people may be exposed to changes in air quality, soil, surface water, plants, fish, and wildlife resulting from the Rook I Project.

- What contaminants may be emitted in water and air (e.g., metals, radionuclides)
- How the contaminants could potentially be released (e.g., from treated effluent)
- How the contaminants could potentially reach a receptor (ecological or human) (e.g., drinking the water, breathing the air, eating food)
- Where the receptors may potentially come into contact with the contaminants
- How long a receptor may be exposed (duration and frequency)

How did we assess the effects?

The human health assessment used the IMPACT Contaminant Transport and Pathways Model to predict effects to people resulting from exposures to non-cancer-causing substances, cancer-causing substances, and radiation dose.



Potential Exposure Pathways

Source: Ecometrix

The results

The evaluation of effects showed the following:

- No significant adverse effects to humans are likely as a result of non-carcinogenic (i.e., non-cancer causing) releases from the Project
- Low to very low predicted incremental cancer risks (average cancer risk in Canada is 50,000 in 100,000, the additional cancer risk from the Project would be 4 in 100,000). This prediction considered the high levels of Traditional Food consumption by community members
- No discernable health effects are anticipated from radiation exposure
- No effects due to exposure to radon are anticipated

The results of the human health assessment indicate that the Project design and controls are protective of human health throughout the Project lifespan.

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Community Well-Being

A focus of the EA

Interviews were completed with community leadership, business owners, health services providers, the Royal Canadian Mounted Police (RCMP), social and family service providers, and educators in the local communities to understand the current sense of well-being for each community and how it can be affected. Publicly available data and statistics were also collected and analysed to help understand current conditions in communities.

What did the studies tell us?

The interviews and information collected to date have provided community-specific information on well-being from a variety of viewpoints.

How did we assess the effects?

The potential effects on community well-being were assessed by evaluating the following social determinants of health:

- Societal and Cultural Well-Being (e.g., demographics, culture)
- Health Well-Being (e.g., health infrastructure, health services)
- Neighbourhood and Physical Environment Well-Being (e.g., recreation, planning)
- Educational Well-Being (e.g., education, training)
- Economic Well-Being (e.g., employment, business opportunities)

The results

When considering the benefits and potential adverse effects of the Project together, it is likely that local communities will experience a positive overall effect on community well-being.

Key benefits

- Increased income and community revenue
- Provision of revenue through the Benefit Agreements with primary Indigenous Nations
- Increased educational and training opportunities

Potential adverse effects

- Local loss of cultural continuity, including transmission of knowledge, related to areas around Patterson Lake that are not accessible during the Project lifespan
- The worker rotation system is expected to place increased stress on some family dynamics
- Increased demands in local communities for mental health services

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Air Quality

Existing conditions

Existing atmospheric conditions do not exceed Saskatchewan Ambient Air Quality Standards (SAAQS) except for 24-hour particulate matter less than 2.5 µm ($PM_{2.5}$) and particulate matter less than 10 µm (PM_{10}).

A focus of the EA

Baseline studies were completed to describe the existing atmospheric conditions in the Rook I Project's local and regional area, including:

- **Air quality** – included measuring levels of radon, particulate matter (solid and liquid droplets in the air), carbon monoxide, nitrogen dioxide, and sulfur dioxide
- **Climate** – weather conditions averaged over long periods of time
- **Meteorology** – factors that affect weather such as temperature, humidity, precipitation, and wind speed and direction

How did we assess the effects?

Air quality was assessed using the AERMOD Gaussian Dispersion Model to determine the Project emissions for:

- Ambient air concentrations that have applicable Provincial or Federal air quality criteria
- Suphur dioxide, nitrogen oxides, and carbon monoxide
- Greenhouse gases

What are we doing?

Reducing potential effects to air quality was a focus during Project design:

- Liquified natural gas was selected as the primary fuel source for power generation, which produces less emissions than diesel
- Existing site roads will be upgraded and maintained to reduce dust from increased site traffic, and water and other dust suppressants will be used during dry conditions

The results

- Air quality will reflect detectable changes from existing conditions; however, most of the criteria air contaminants (CACs) are predicted to remain compliant with Provincial guidelines through all phases of the Project
- Short-term concentrations of PM_{10} and total suspended particulate are projected to be above Provincial guidelines but exceedance frequencies would be low and localized to the maximum disturbance area
- Duration of effect of CACs is limited to the period when emissions are being released, and would cease once Project activities are complete

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Hydrology

A focus of the EA

Baseline studies were conducted to understand:

- The speed and direction of currents within Patterson Lake
- How water flowing out of Patterson Lake mixes within Forrest Lake
- Water levels, water flow, and sediment conditions within the lakes and rivers that could be affected by the Rook I Project

What did the studies tell us?

The studies provided information on water levels and water flows within Patterson Lake and the Clearwater River watershed.

Patterson Lake is 'U-shaped' and has three main basins. The lake has a maximum depth of 52.7 meters.

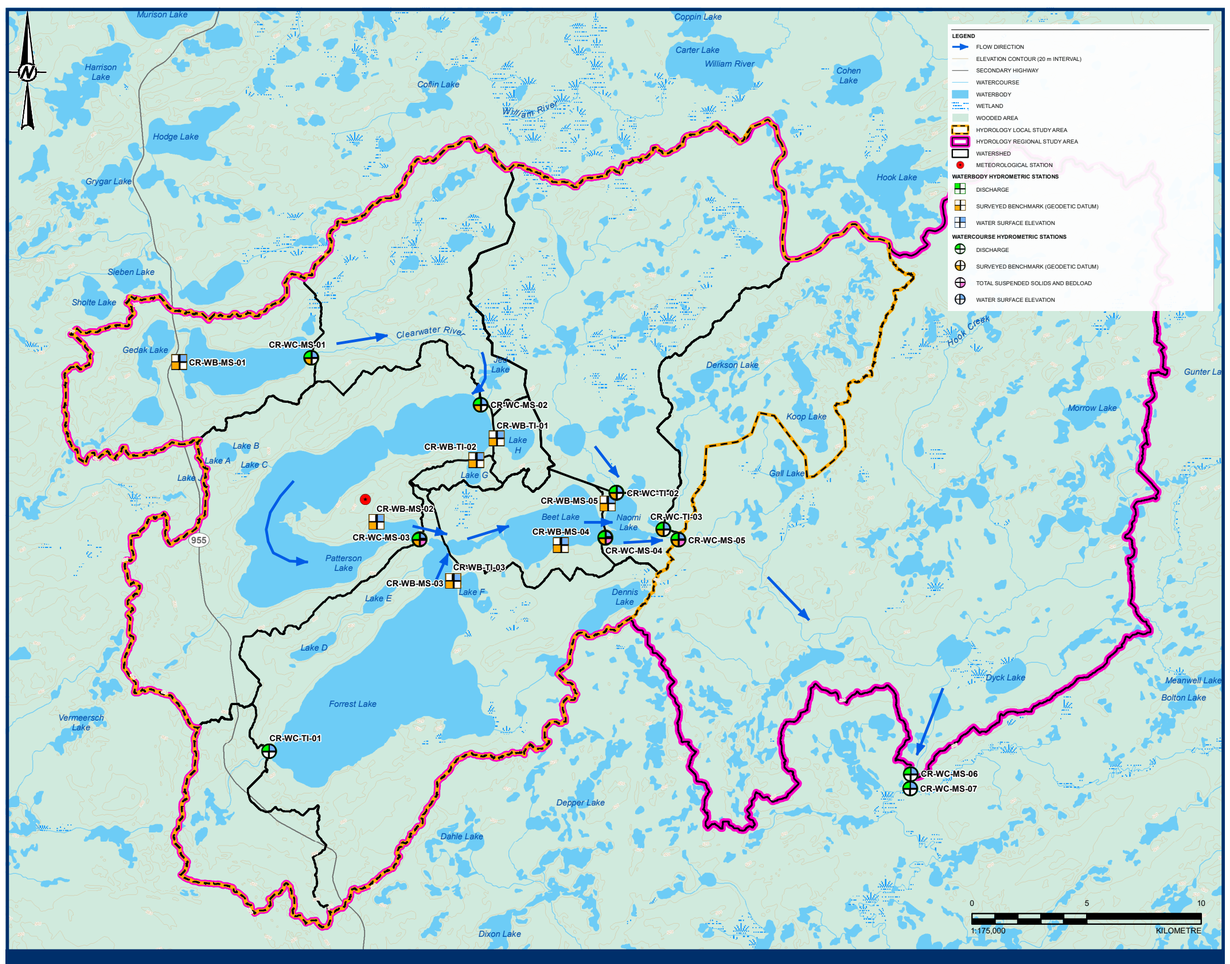
The Clearwater River is the main inflow to and outflow from Patterson Lake.

Water leaving Patterson Lake has little mixing with nearby Forrest Lake.

How did we assess the effects?

The hydrological assessment focused on how the Project may affect:

- Waterbody water surface elevation (water depth)
- Watercourse flow rates
- Stream channel parameters (such as water depth, wetted area, width)
- Transport of sediment along streams and rivers



Monitoring Locations Used for Hydrology Assessment

The results

Net discharge of water to Patterson Lake:

- Small, but undetectable, increases in waterbody water surface elevations and changes would diminish downstream of Patterson Lake

Flow rates and water surface elevations (Clearwater River):

- Clearwater River water surface elevations and flow rates are predicted to remain within the range of natural seasonal and annual variability
- Changes are likely to be undetectable

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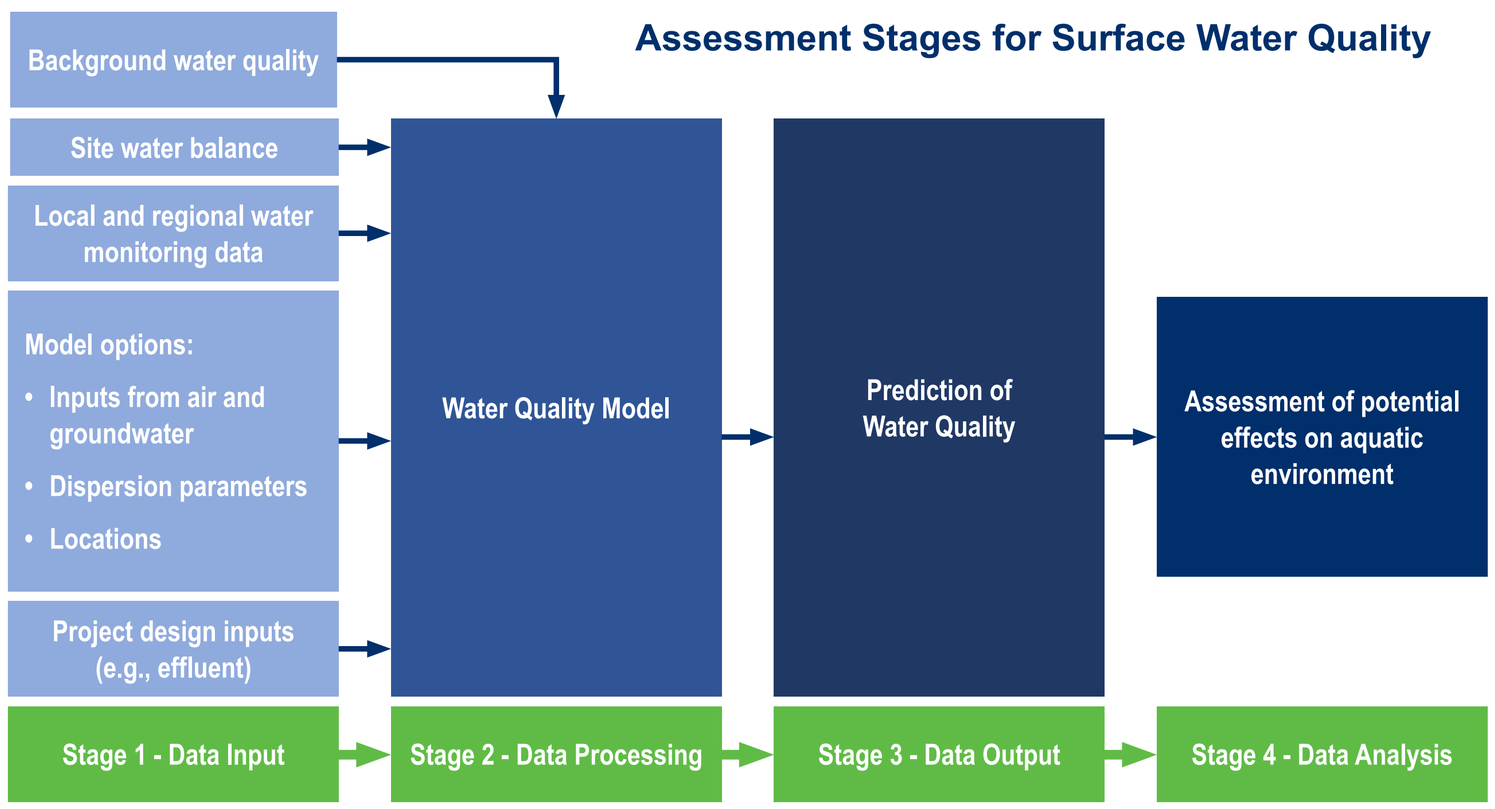
Surface Water Quality

A focus of the EA

Baseline studies were conducted to determine the current water quality in Patterson Lake, multiple surrounding lakes, and through the Clearwater River system.

What did the studies tell us?

The water quality conditions for 18 surface water bodies was measured between 2015 and 2020. The water is generally clear with low suspended solids. Water is typically saturated with dissolved oxygen. Surface waters are low in dissolved solids (major ions) with the dominant ions being calcium and sulphate. Nutrient concentrations were low. Total metals were generally below quality threshold levels.



How did we assess the effects?

The predicted water quality from the mine activities (effluent quality), and how the effluent from the site will mix with the water in the lakes and rivers were assessed, including:

- Water quality parameters such as temperature, pH, dissolved oxygen, and conductivity
- Concentration of major ions, suspended solids, nutrients, metals, and radionuclides

The assessment included modelling to predict:

- How treated effluent would mix with lake water near the discharge points in Patterson Lake
- Water quality within Patterson Lake as a whole, as well as other regional lakes

The results

- During the Project lifespan, overall constituent concentrations would increase locally but would not have threshold exceedances during Construction or Operations
- Over time, a migration of metals and radionuclides from the waste rock storage areas and underground tailings to the environment is expected to occur. Only cobalt and copper were predicted to exceed water quality thresholds in the far future. NexGen would implement an adaptive management plan during Operations to minimize effects in the far future (e.g., 400 years)

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Fish and Fish Habitat

A focus of the EA

Baseline surveys for fish and fish habitat were completed in 2018 and 2019 in Patterson Lake as well as other lakes and rivers in the area. Information on fish habitat types (including nursery, rearing, overwintering, and others), habitat suitability, chemistry (fish tissues, sediment, and aquatic plants), and fish community composition was collected. Baseline studies also collected information on plankton (water organisms) and benthic invertebrates (water organisms with no backbone).

School of Fish in Creek Below Broach Lake

What did the studies tell us?

The baseline studies provided information on the fish and fish habitat in the area of the Rook I Project as well as the amount and distribution of habitat types.

Surveys detected northern pike, lake whitefish, longnose sucker, walleye, perch, and lake trout. The concentration of metals, trace elements, and radionuclides in northern pike and lake whitefish tissues were low. Spawning habitat types preferred by walleye, lake whitefish, and lake trout (like sand and gravel) was more common in the study area than for northern pike. A diversity of benthic invertebrates was detected with the most common type being midge larvae (Chrironomidae).

How did we assess the effects?

The assessment for fish and fish habitat included determining the effects of the Project on fish habitat availability, distribution, and survival and reproduction (health) for key fish species.

The results

- **Habitat availability:** Limited potential for changes in habitat availability due to exposure to predicted copper concentrations in Patterson Lake after Closure and in the far future. Copper concentrations are unlikely to result in population and/or community-level effects on lower trophic organisms or forage fish, nor for overall fish and fish habitat
- **Habitat distribution**: No adverse effects on fish habitat distribution are predicted to occur
- **Survival and reproduction:** Effects on the health of fish and survival and reproduction are not expected for predator fish (e.g., lake trout, walleye, northern pike) and are unlikely for forage fish (e.g., lake whitefish)

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Vegetation

A focus of the EA

Vegetation surveys were conducted to take vegetation inventories, detect rare plants, characterize wetlands, and determine existing chemical element and radionuclide concentrations. Fire disturbances, human-influenced features, and ecosites were also mapped. Indigenous Knowledge and Traditional Land Use Studies prepared by Indigenous Nations identified traditionally used plant species that were included in the assessment.

What did the studies tell us?

The local area is predominately upland ecosystem (Jack pine is common), much of which has been burned in the past 40 years. Regenerating forested areas are common.

Wetlands are present within the local area with shrubby bogs and treed bogs being the most common types.

Human-influenced features include access roads, trails, and clearings, but represent only a small proportion of the landscape.

Labrador Tea near the Rook I Project Area

No federally listed vascular plants were detected within the study area.

Traditionally used plant species detected during baseline surveys included species such as birch, blueberry, cloudberry, cranberry, jack pine, kinnikinnick, spruce, mosses, and Labrador tea, among others.

How did we assess the effects?

The potential effects of the Project to ecosystems and traditional use plants were evaluated:

- For ecosystems, ecosystem availability, distribution, and condition were assessed
- For traditional use plants, habitat availability and habitat distribution were assessed

The results?

The overall condition of ecosystems and traditional use plants will be maintained outside the Project maximum disturbance area.

- **Upland ecosystems:** Low magnitude loss in the upland ecosystem availability (approximately 1.2% of the regional study area [RSA])
- **Wetland ecosystems:** Low magnitude loss in wetland ecosystem availability (less than 0.1% of the RSA)
- **Riparian ecosystems:** Low magnitude loss in riparian ecosystem availability (0.4% of the RSA)
- **Traditional use plants:** Loss of about 282 ha of traditional use plant habitat (1.1% of the RSA)

All ecosystem and habitat losses occur within the Project maximum disturbance boundary.

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Wildlife and Wildlife Habitat

A focus of the EA

Baseline studies were conducted to determine the use of the area of the Project by wildlife. Vegetation surveys were conducted to determine the distribution of wildlife habitat.

What did the studies tell us?

The baseline studies provided information on the birds and mammals in the area of the Project as well as the amount and distribution of habitat types.

Surveys completed as part of the baseline studies in the local and regional area detected at least 23 species of mammals (some bat species were grouped) using winter snow tracking, ungulate pellet counts, small mammal trapping, semi-aquatic furbearer surveys, and trail cameras. Examples of detected species include: beaver, black bear, deer, fisher, lynx, marten, mink, moose, wolf, muskrat, otter, porcupine, rabbit (hare), and weasel.

Birds were surveyed using multiple methods including ARUs (song recorders), breeding bird surveys, and targeted surveys. A total of 95 species of birds were identified in the baseline surveys.

How did we assess the effects?

The potential effects of the Project to wildlife and wildlife habitat were determined through the assessment of changes to habitat availability, habitat distribution, and animal survival and reproduction (health) for key wildlife species.

The results

- Project effects are not predicted to result in changes to wildlife health or condition
- Wildlife habitat loss, habitat alteration, and sensory disturbance are expected to occur for all Project phases, though the magnitude of loss of suitable wildlife habitat would be less than 1.5% of the regional study area for all species assessed
- Only effects on woodland caribou are predicted to be significant, primarily due to effects on woodland caribou being significant under existing conditions. The Project would reduce woodland caribou habitat by less than 0.1% in SK2 West
- Wildlife habitats will be restored to the extent possible through progressive and final reclamation, and NexGen will implement a Caribou Mitigation and Offsetting Plan that is expected to provide a net increase in functional woodland caribou habitat

Black Bear Near Rook I Project Site

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Indigenous Land and Resources Use

A focus of the EA

NexGen learned many valuable aspects regarding Indigenous land and resource use through engagement with Indigenous Nations, community information sessions, workshops, interviews, and Indigenous Knowledge and Traditional Land Use studies.

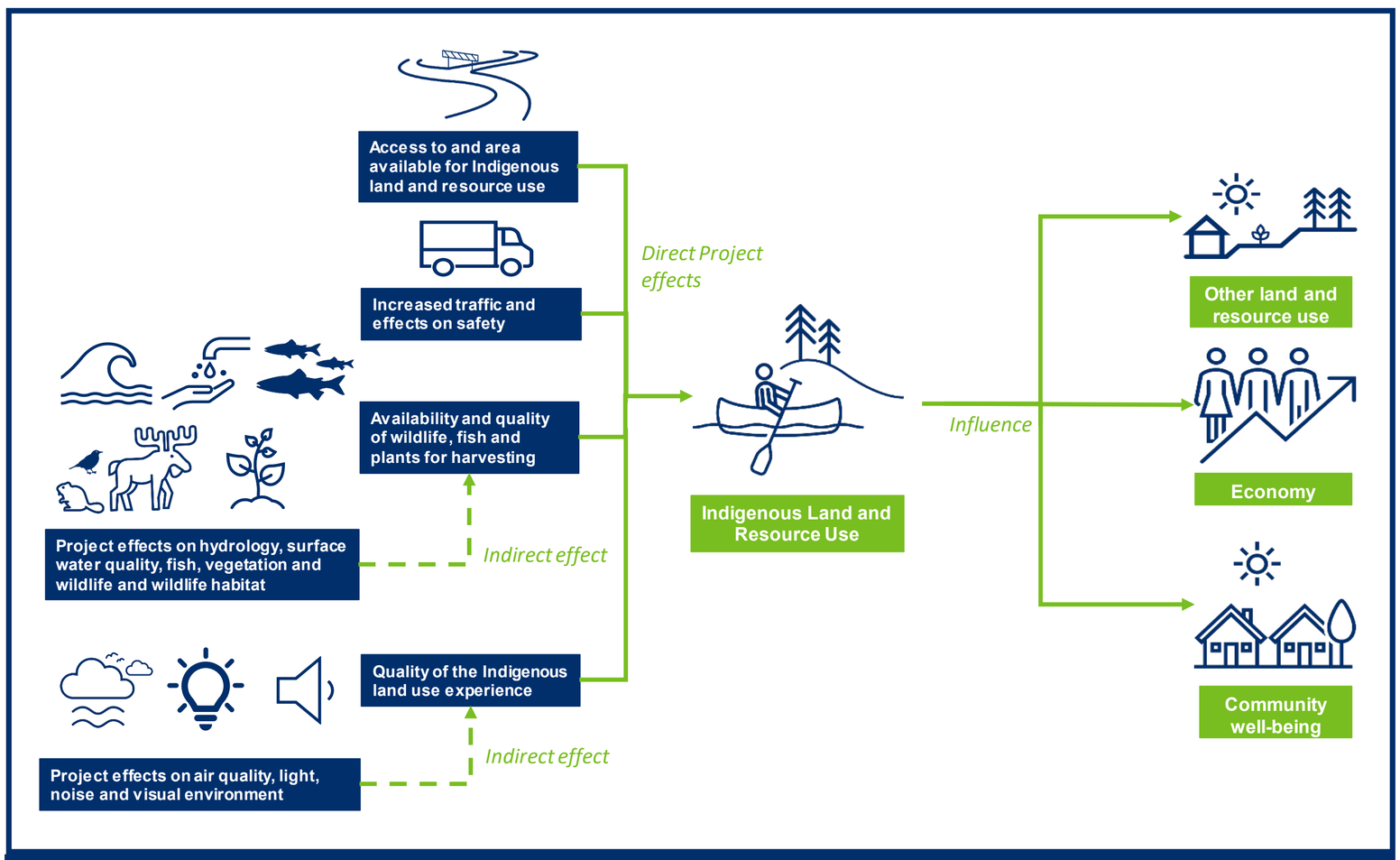
In addition, information from other environmental assessment discipline baselines and assessments was studied to assess how Indigenous land and resource use may be affected by the Project.

What did the studies tell us?

The Project may affect Indigenous land and resource use in the following ways:

- Access restrictions may displace some Indigenous land and resource use practices
- Mining activities may alter the availability of plants, wildlife, and fish
- Sensory disturbances may change the quality of Indigenous land and resource use experience
- Changes to air or water quality may discourage traditional uses near the Project
- Ground disturbance can permanently alter the landscape, changing Indigenous land and resources use
- Awareness of the decommissioned site may change the perceived suitability of the area for Indigenous land and resource use

The EA is a process to ensure any potential effects are managed effectively in the interests of those affected.



Pathways to Potential Changes in Indigenous Land and Resource Use

How did we assess the effects?

The assessment for Indigenous land and resource use determined the effects of the Project with respect to area available for Indigenous land and resource use, quality of resources, and quality of the Indigenous land and resource use experience.

The results

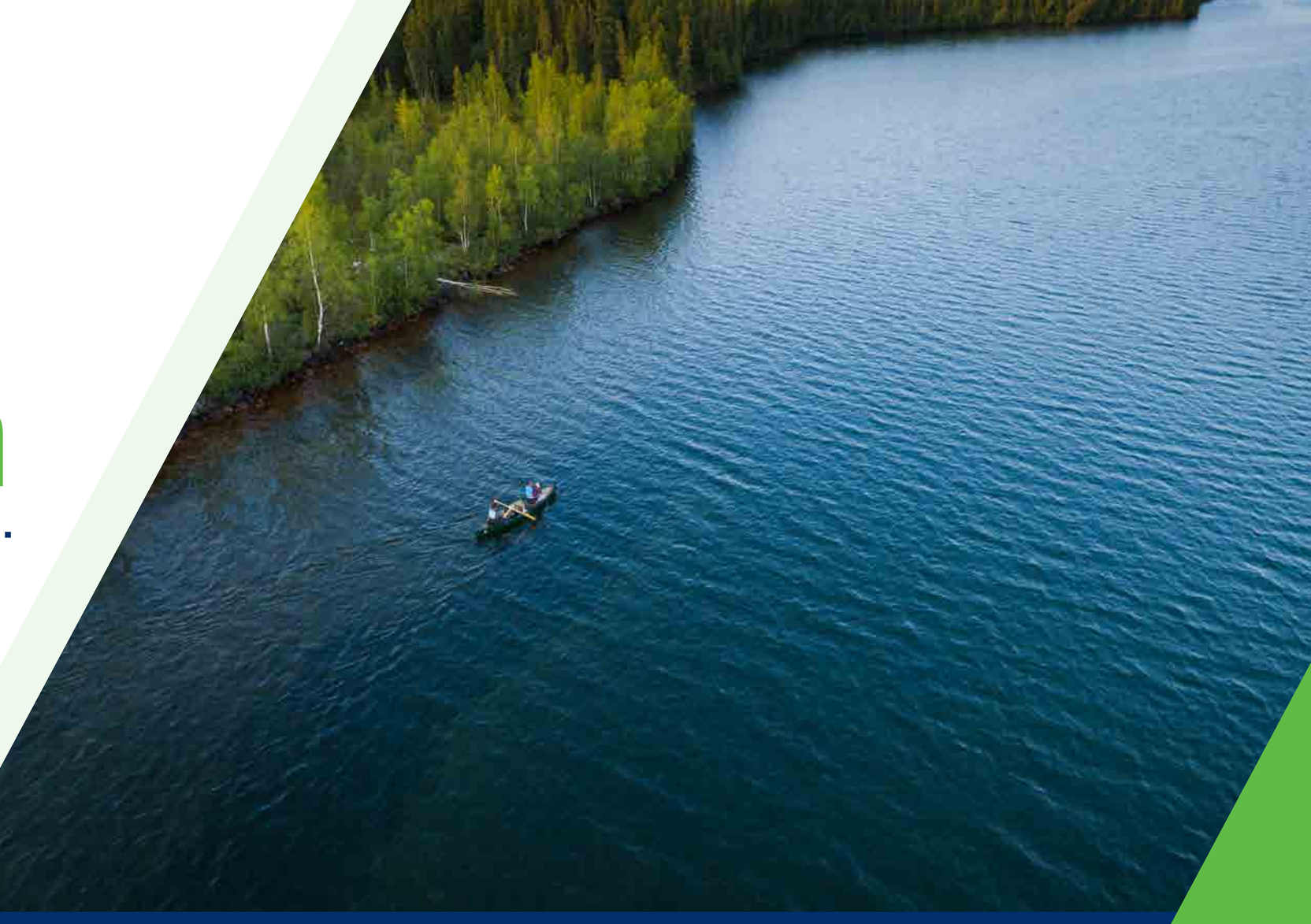
While Indigenous land and resource use activities could change or be displaced to some degree, the activities will be able to continue.

What are we doing?

NexGen has worked with, and will continue to work, with local Indigenous Nations and communities to promote the use of the Patterson Lake traditional use area.

Environmental Committees have been established with local Indigenous Nations to stay actively involved in monitoring of the environmental performance of the Project. Additionally, NexGen funds the hiring of independent Indigenous monitors throughout the Project lifespan.

Benefit Agreements with local Indigenous Nations include funding and human resources to support community-related initiatives related to cultural and traditional values.

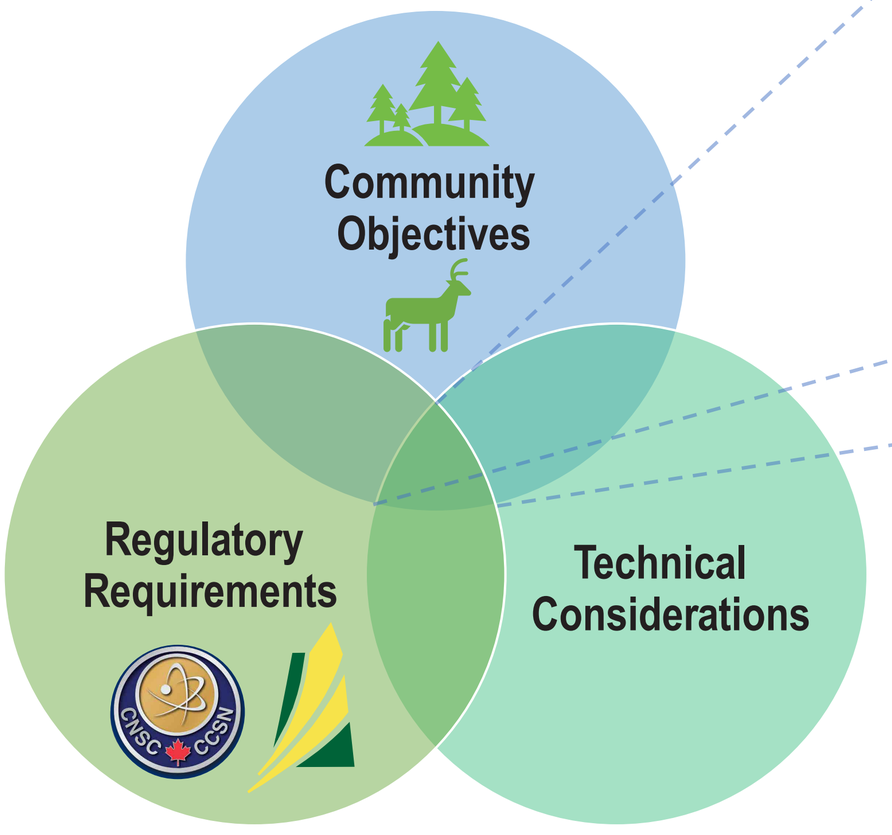


End Land Use

End Land Use

End Land Use refers to how the Rook I Project site will be used in the future, after decommissioning and reclamation. NexGen's preliminary objective is to reclaim the landscape to allow for unrestricted land use by members of local Indigenous Nations and communities. This objective would be supported through the establishment of functional, self-sustaining, locally common ecosystems as soon as practical.

NexGen's End Land Use planning will occur throughout all Project phases and will use the most current information about the Project and surrounding environment.



Reclamation Methods

To achieve end land use objectives, the following are commonly used and may be appropriate for the Project:

- Shaping of landforms
- Creating more natural surfaces (e.g., rough, irregular/ non-linear)
- Spreading soil that was salvaged prior to construction
- Revegetating
- Assessing site access to enable ecosystem recovery
- Monitoring and adaptive management, as required

Environmental Committees

The Environmental Committees are discussing end land use planning and have prioritized collaborating on the end land use plan and reclamation and closure plan.

We are here to help answer your questions. All questions are important.

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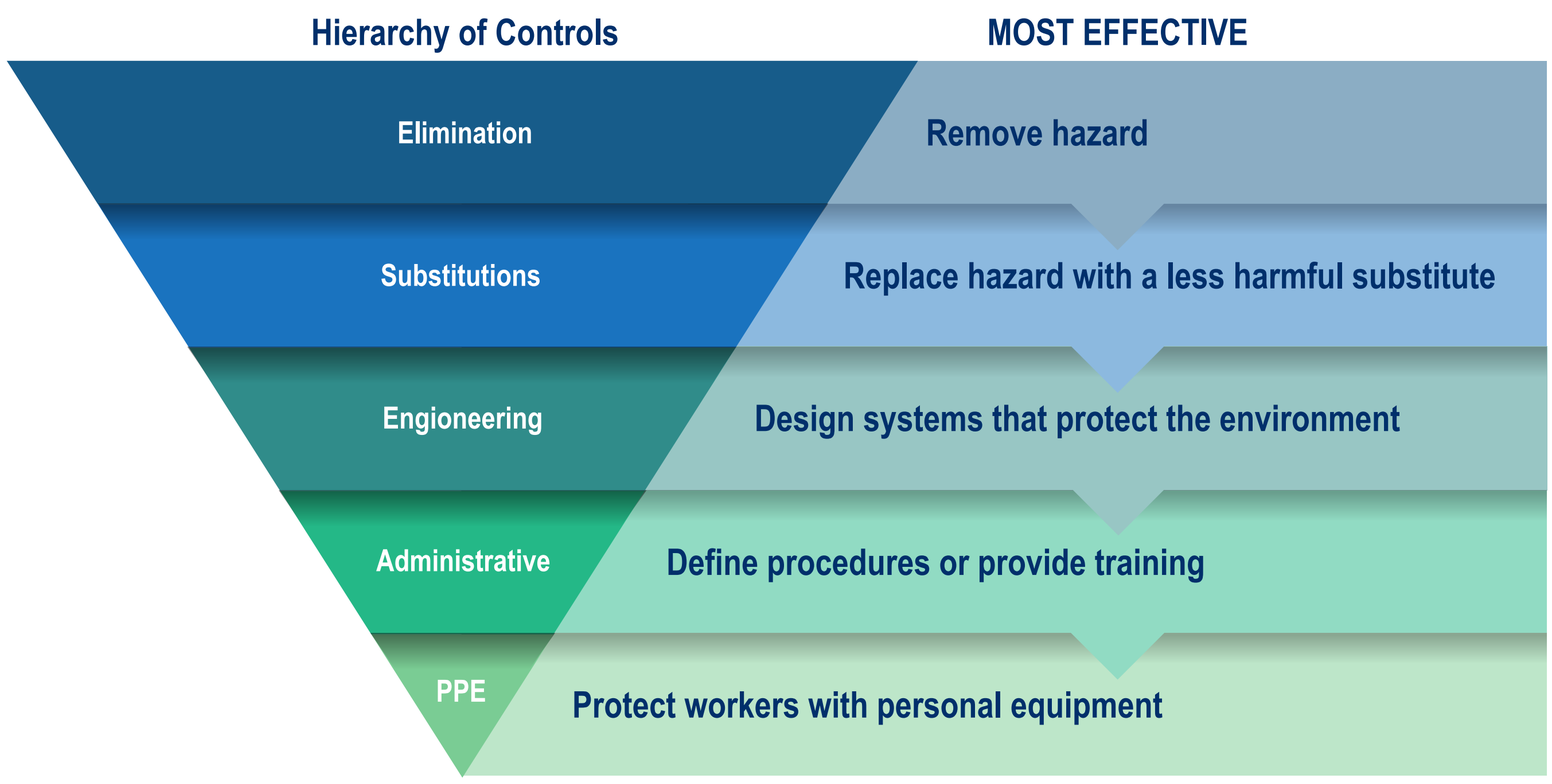
Environmental Protection and Monitoring

Environmental Protection

NexGen is minimizing impacts on the environment and biodiversity from Rook I Project facilities, activities, and processes throughout the Project lifespan and for future generations. This includes the consideration and incorporation of Indigenous and Local Knowledge.

NexGen's Environmental Protection Principles

- Protect and promote the health, safety, and well-being of people and the environment through all aspects and phases of the Project
- Established culture of environmental protection which is periodically assessed and continually improved
- Apply economically viable, best available technology and techniques
- Design and plan for responsible closure
- Respect the principle of pollution prevention
- Provide workers with the knowledge, skills, and tools to implement environmental protection processes



- Keep releases to the environment as low as reasonably achievable (ALARA)
- Maintain diverse, open, and transparent two-way communication channels that build trust and confidence of local Indigenous Nations and the public
- Monitor and assess against indicators and targets based on science and Indigenous and local knowledge
- Comply with applicable requirements and
- Continually improve Program performance.

Environmental Controls

Environmental interactions are the ways in which Rook I Project facilities, activities, and processes can influence or effect the natural environment.

Environmental interactions have been identified and assessed. Controls appropriate for the corresponding level of risk have been identified and will be implemented and verified to minimize environmental impacts. The Project will use a variety of controls to effectively prevent or reduce the risk to the environment.

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Environmental Protection and Monitoring

Environmental Monitoring

A purpose-driven monitoring approach considering a wide variety of environmental elements has been implemented which continually evaluates environmental protection performance. Monitoring is used to:

- Characterize and monitor the overall performance of facilities, activities, and processes to ensure the environment remains protected
- Determine whether environmental protection measures are performing as intended and to help inform opportunities for continual improvement

As part of the evaluation of Project performance, Environmental Committees formed with each of the four primary Indigenous Nations provide oversight of the environmental performance and verify Project compliance. In addition, NexGen funds a full-time Indigenous monitor chosen by each of the primary Indigenous Nations to conduct independent environmental sampling.

Who Monitors

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CNSC CCSN

Saskatchewan Ministry of Environment

What is Monitored

Terrestrial Ecosystems
(terrain and soils intermediate components, vegetation and wildlife VCs)

Aquatic Ecosystesm
(hydrology, water and sediment quality intermediate components, fish valued components [VCs])

Wildllife

Vegetation

Fish

Sediment Quality

Hydrology

Terrain and Soil

Surface Water Quality

Air Quality

Noise

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Economy

Local community members are interested in employment, training, and business opportunities for community members with an emphasis on hiring.

A focus of the EA

A socio-economic baseline was conducted to examine the traditional and wage economies, including government transfers. Inputs were sought from Joint Working Groups (JWGs) to understand and incorporate the importance of the traditional economy, and the relationship between the traditional and wage economies for families and communities. NexGen heard the importance of managing the potential negative effects of economic opportunities, including increases in disposable income. Benefit Agreements with the primary Indigenous Nations and programs developed jointly between NexGen and the local communities will further enhance income opportunities for local residents and manage social effects.

The results

Increased income opportunities for local residents

(during a typical operating year)

~$384 million
expected Construction labour costs

~$55 million
estimated Operations direct labour spending

Broader Economic Benefits through the payment of royalties to the governments of Saskatchewan and Canada

(during a typical operating year)

~$288.5 million
estimated for Saskatchewan

~$103.9 million
estimated for Canada

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EA Operational Employment Forecast

What are we currently doing?

NexGen is working proactively with the local communities and training institutions to collaborate on training and employment programs that are aligned with the development of the Rook I Project.

Carpentry Program: NexGen initiated an 18-week Carpentry Applied Certificate Program in La Loche, which concluded in March 2023. The eight graduating students received 540 hours towards their first-year accreditation and will be registered as first-year apprentices.

Summer Student Program: Builds skills and confidence in young adults through skilled employment at the existing exploration site. To date, more than 60 students have been employed in the program.

Scholarship Program: Since 2017, NexGen has provided up to four scholarships per year to students from the LPA to successfully pursue their post-secondary education.

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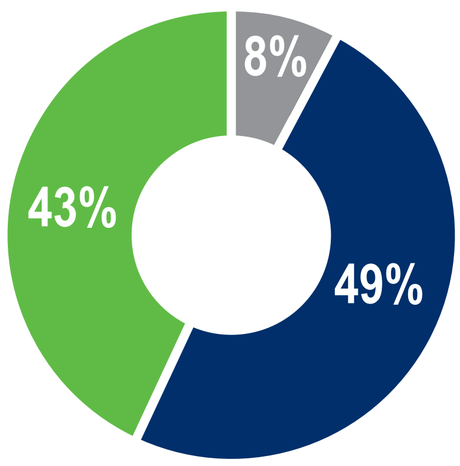
Economy



During Operations, NexGen is creating approximately **490 jobs** at the Rook I Project, across all departments.

Examples of Career Opportunities During Operations

Short-term Certificate and On-the-Job Training Required

- Labourers
- Camp Attendants
- Kitchen Helpers
- Security
- Warehouse Persons
- Class 1A Drivers
- Heavy Equipment Operators
- Mill Operators
- Shotcrete Operators
- Batch Plant Operators
- Paste/Slurry Crew
- Undergound Drillers
- Undergound Miners

1+ Year Certificate or Diploma Required

- Office Administrators
- Radiation Technicians
- Geological Technicians
- Environmental Technicians
- Lab Technicians
- Health and Safety Officers
- Human Resource Specialists
- Training Coordinators
- Surveyors

Trades Required

- Millwrights/Welders
- Metallurgists
- Carpenters
- Electricians
- Plumbers/Pipefitters

University Degree Required

- Occupational Health Nurses
- Geologists
- Engineers
- Accountants

Other

- Supervisors
- Superintendents

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Community First

Since 2013, NexGen has been an active member of the communities near the Rook I Project. We are continuing to work together to build long-term opportunities that contribute to a sustainable future.

NexGen recognizes the importance of working together with local communities and will continue to focus on meaningful engagement throughout the Project lifespan.

Community Programs

The School Breakfast Program

Through a partnership with the Breakfast Club of Canada, healthy breakfasts are provided to over 1,000 students each school day. Eight local cooks are employed to prepare breakfasts for students.

Youth Sports Programs

Each year, NexGen provides support to minor sports teams in the LPA. This support keeps the local youth engaged in sports and provides them with opportunities to participate in sporting events throughout the province and country.

Youth Mentorship Programs

In addition to the annual Summer Student Program, NexGen provides mentorship opportunities for students who contribute positively to their schools and communities. Through partnerships with the Vancouver Canucks hockey team, the Saskatchewan Roughriders football team, and the Saskatchewan Rush lacrosse team, NexGen leads mentorship opportunities for students in the LPA to inspire youth to be active, be stewards in their community, and pursue their dreams.

Recreational Program

Provides structured after-school and summer holiday recreational events and opportunities for the youth community and community members. Programming includes beadwork, holiday decorating, traditional music lessons, and free public skating.

Culture Program

Understanding the importance of culture and traditional values, NexGen supports the communities in the LPA through various initiatives that provide opportunities for the youth to work with the Elders and Knowledge Keepers of their communities.

Dog Fostering Program

Through collaboration with the Meadow Lake Humane Society, NexGen has fostered over 40 dogs at the existing exploration site, with almost all the fostered dogs having found a permanent home. Beginning in 2023, NexGen is proud to also sponsor the La Loche Paw Protection and Buffalo Narrows Animal Control dog rescue programs in the LPA.

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Key Findings from the Environmental Assessment

Overall, the Project is expected to result in some changes to the environment but is not predicted to result in significant adverse effects to any biophysical or socio-economic component with the exception of woodland caribou.

Potential Project Effects

The Project effects on woodland caribou are predicted to be minimal; however, as effects to woodland caribou are already significant under existing conditions, this would continue with the addition of the Project. NexGen will be implementing a Caribou Mitigation and Offsetting Plan designed to improve woodland caribou habitat from the current environmental conditions.

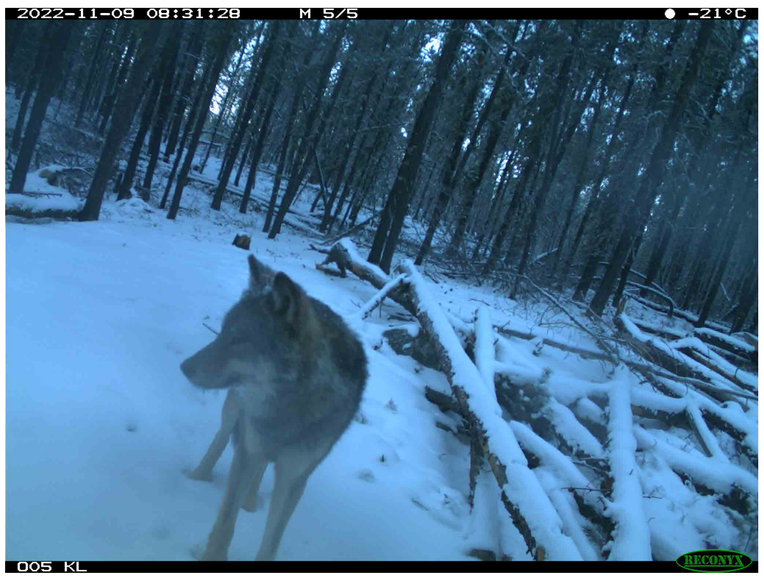
In the far future (e.g., 400 years), copper and cobalt levels in Patterson Lake are predicted to exceed regulatory threshold values. However, these exceedances are expected to be localized and are not predicted to impact fish, plants, wildlife, or human health. During Operations, NexGen would analyze data and apply adaptive management processes to further minimize effects.

Project Benefits

The Project is anticipated to provide many benefits to local community members including increased employment, income, education and training, and business opportunities. NexGen will continue to maximize opportunities for local communities.

NexGen Energy Ltd.

Wildlife Observed at the Rook I Site



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Marsi cho'. Thank you!

Thank you for attending our information session about the Rook I Project. We hope that you found the session informative. Input from local communities, Indigenous Nations, regulators, and stakeholders is critical to the success of the Rook I Project.

NexGen would appreciate it if you could fill out our survey so we can consider items of importance to you.

If you would like further information about the Rook I Project:

DROP IN:	NexGen's La Loche Office, located in the Dene Empowerment Centre
WEBSITE:	www.saskatchewanuranium.ca
EMAIL:	engagement@nxe-energy.ca
PHONE:	1-833-333-8895
WRITE TO US:	Suite 200, 475-2nd Ave South Saskatoon SK, S7K 1P4

Thank You for Having Us!

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