From: Saitowitz, Natasha
Sent: April 22, 2022 5:58:09 PM
To: Ministre / Minister (ECCC)
Cc: glenmccallum@mns.work; leonardmontgrand@yahoo.ca; mvermette@mns.work; mcalette@mns.work; consultation@cnsc-ccsn.gc.ca; Hoekstra, Arend J.A.
Subject: Impact Assessment Act Review of Proposed NexGen Energy Ltd. Activities [IWOV-LEGAL.050968-00009]
Sensitivity: Normal
Attachments:
LTR to Hon Steven Guilbeault - Impact Assessment Act Review of Proposed NexGen Energy Ltd - April 22, 2022.PDF ;

Please find attached letter of today's date on behalf of Arend Hoekstra.

Kind Regards,

Cassels

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April 22, 2022

Via E-Mail: ministre-minister@ec.gc.ca

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The Honourable Steven Guilbeault
Minister of Environment and Climate Change
1010 - 800 Boul de Maisonneuve E
Montréal, Quebec
H2L 4L8

Dear Minister Guilbeault:

Re: Impact Assessment Act Review of Proposed NexGen Energy Ltd. Activities

I am writing on behalf of Métis Nation – Saskatchewan (MN-S) in respect of the seven Métis Locals of MN-S Northern Region 2 – Clearwater Clear Lake (NR-2).

NR-2 and MN-S have recently been informed of a proposal by NexGen Energy Ltd. ("NexGen") to undertake a substantial workplan in the next few months, including the construction of a runway (the "Runway"). MN-S and NR-2 submit that the Runway qualifies as a "physical activity" under *Physical Activities* Regulations SOR/2019-285 and is, therefore, a "designated project" within the meaning of the *Impact Assessment Act.* MN-S and NR-2 respectfully request that the Runway undergo an impact assessment as a designated project under the *Impact Assessment Act*. In the alternative, MN-S and NR-2 respectfully request that the Minister exercise his discretion to designate the Runway for an impact assessment under Section 9(1) of the *Impact Assessment Act*.

Background and Context

Pre-existing Project Assessment for a Uranium Mine

NexGen has submitted an application to develop a uranium mine within its Rook 1 property (the "Uranium Mine"). A Project Description for the Uranium Mine (the "Project Description) was filed with the Canadian Nuclear Safety Commission ("CNSC") dated April 2019. NexGen requested that the Project Description be reviewed under the *Canadian Environmental Assessment Act, 2012*.

The Project Description includes the construction of a runway but provides insufficient details on the proposed runway, other than a statement that it will be "similar to the runways at other northern Saskatchewan mining operations and communities" and "will be constructed with a sand and gravel surface with the option to apply an asphalt surface." For reference, we understand the nearby La Loche runway to be 1,155 metres in length and the McClean Lake uranium mine airport's two runways to be 1,600 metres long and 1,800 metres long.

The Runway

In a filing dated March 21, 2022 and revised on April 2, 2022 (the "Provincial Application"), NexGen has sought approval from Saskatchewan for the development of the Runway in 2022.

NexGen has described the Runway as a "temporary all-weather airstrip" and apron. While NexGen states that the Runway will be "990 metres" in length, the illustrations provided with the Provincial Application show the length of the entire runway strip and built-up area to be approximately 1,150 metres. The Provincial Application does not appear to reconcile the illustrations with the 990-metre description. There is nothing in NexGen's Provincial Application to reconcile its planned Runway with the runway in the Project Description under consideration by the CNSC. The location of the Runway appears to overlap with the runway described in the Project Description for the Uranium Mine.[1] The Provincial Application does not specify whether the Runway is the same as, or will become, the runway referenced in the Project Description for the Uranium Mine.

Environment

The Runway is located within the territory of the Boreal Shield Woodland Caribou, which are designated as a "threatened species". As the Government of Saskatchewan notes, "Caribou have only one calf per year. At that rate of reproduction, increased disturbance and predation may lead to a decline in their population."[2] An initial review of the Provincial Application suggests that little thought has been given to how the Runway will impact Caribou, and avoidance commitments are vague and unreliable (e.g. "if multiple signings occur over a short period of time, NexGen ***may*** contact ENV, particularly if the sightings coincide with sensitive time periods for caribou".[3]

NexGen's Provincial Application also refers to a number of other species at risk that may be impacted by the Runway. The Runway may also adversely impact other species which are hunted and trapped by Métis Citizens.

Métis Rights and Communities

The Runway is located on the edge of Paterson Lake, within an area which has supported, and continues to support, important Métis social, economic, and cultural practices.

The Runway lies within the heart of the Northwest Métis land claim (the "Land Claim"). Canada and MN-S agreed to a negotiation process under the July 20, 2018 "Framework Agreement for Advancing Reconciliation" which expressly contemplates the Land Claim.

[1] See Project Description Figure 1.2-1 and Provincial Application Figure 6-1.
[2] https://www.saskatchewan.ca/business/environmental-protection-and-sustainability/wildlife-and-conservation/wildlife-species-at-risk/woodland-caribou
[3] Rook 1 Property – 2022 Site Program Application, Section 7.14

Saskatchewan's Policy of Refusing to Consult

The Government of Saskatchewan, by policy, will not consider or engage with respect to claims of Aboriginal title by *any First Nation or Métis* peoples. Similarly, the Government of Saskatchewan will not consider any claims of commercial harvesting rights (rights which are fundamentally connected with the history of the Métis). There is no ambiguity in Saskatchewan's position; Saskatchewan is actively seeking to defend these positions in court in 2022.

Regulatory Context and Concerns

a. *Impact Assessment Act*

Pursuant to Section 46(a) of *Physical Activities Regulations*, the construction, operation, decommissioning and abandonment of a new aerodrome with a runway length of 1,000 m is a physical activity meeting the threshold for designation. The characterization of the Runway as a 990-metre runway is arguably an attempt to avoid an *Impact Assessment Act* review for a project that, according to the information provided by NexGen, is in fact in excess of 1,000 metres[4]. Even if, contrary to the illustrations provided by NexGen in the Provincial Application, the Runway is actually 990 metres long, the proposed length is exceptionally close to the regulated threshold for federal review and the associated potential for impacts to the environment and Indigenous peoples would be identical to those resulting from a 1,000-metre runway.

b. *CEAA 2012*

NexGen has already proposed the construction of a runway in its Uranium Mine application under CEAA 2012, which application is currently under review before the CNSC. By advancing this as a separate 990m runway, NexGen may be able to "project split" and construct an interim runway that puts the environment and Indigenous interests at risk without a proper federal review and oversight. For Métis Citizens, this creates a real risk of both impacts today, and a lower bar to expanding the runway in the future given the impacts of an expansion may be limited compared to what will already exist in respect of the Runway.

c. Saskatchewan's Approach to Regulations and Metis Rights

i. Inadequate Provincial Review

The Province's review process appears to be inadequate and inappropriately deferential to proponents. In the Provincial Application, NexGen anticipates that it will receive provincial approval for the Runway in May 2022, and will be in a position to proceed with construction of the Runway in June 2022. MN-S and NR-2 submit that these timelines are not consistent with either the technical analysis or the consultation necessary to properly consider the potential adverse impacts of the Runway. MN-S has not yet received notice from Saskatchewan of the Runway and the anticipated consultation process - if any. The wildlife management measures under proposal also appear inadequate, and generally focus on simply reporting wildlife sightings or responding once species have already been disturbed by noise and other activities.

[4] See Application Figure 3-2 which includes an illustration of the Runway with associated scale.

ii. Refusal to Consider Métis interests

The Métis concerns regarding the Runway extend beyond simply "project-splitting." If the Runway proceeds exclusively under a provincial review, there is a high degree of certainty that Métis rights and interests will not be appropriately considered.

If the Runway proceeds without federal involvement, the Métis will have limited opportunity to engage and provide input into this potentially significant development and to have their concerns heard and considered. The Land Claim, which Canada has agreed to negotiate, is at risk of being adversely impacted without any consideration or regard.

Submission: The Runway is a Designated Project under the *Impact Assessment Act*

MN-S and NR2 respectfully submit that the Runway meets the criteria of a designated project under the *Impact Assessment Act,* and specifically should be assessed as a "new aerodrome with a runway length of 1,000 m or more". While the Provincial Application refers to a 990 metre runway, the illustrations provided suggest that the area subject to disturbance and construction which will be built up to host the Runway will exceed 1,000 metres.[5] In addition, it would appear likely that the proposed Runway will be expanded in the near-term as the Uranium Mine proceeds, and should therefore be considered in the context of its eventual length.

Since NexGen has elected to submit the Runway separately from the Uranium Mine and seeks to develop and complete it in advance of a decision by the CNSC, MN-S submits that it is appropriate to assess the Runway under the *Impact Assessment Act*.

Alternative Submission: The Runway should be Designated by the Minister

In the alternative, MN-S and NR-2 respectfully request that the Minister exercise his discretion to designate the Runway for an impact assessment under Section 9(1) of the *Impact Assessment Act*. As described above, the Runway is anticipated to adversely impact matters within federal jurisdiction, including species at risk and Indigenous peoples, which may not be adequately or fully addressed through the provincial process.

On its face, the impacts of a 990-metre Runway are no different than what would be anticipated for a 1,000 metre runway. The Runway will be situated within an environmentally sensitive location which contains threatened species and will likely result in environmental impacts well beyond those associated with runways that exceed 1,000 metres but are located in urban settings.

The Province of Saskatchewan's cursory review and approval processes are inadequate for meaningfully understanding and addressing the environmental impacts of the Runway. Without the involvement of the *Impact Assessment Agency,* the Runway will be assessed and developed without the federal oversight that was planned as part of the assessment of the Uranium Mine.

The concerns of Métis Citizens with respect to the Runway go beyond "project splitting". Without a federal review, important Métis rights, concerns, and interests will not be heard, engaged, or considered. Saskatchewan has been clear that it will not consider Métis (or First Nation)

[5] See Application Figure 3-2 which includes an illustration of the Runway with associated scale.

Aboriginal title claims or commercial harvesting rights, and even on subjects which Saskatchewan is willing to consider, it is MN-S's experience that Saskatchewan has consistently avoided meaningful engagement aimed at understanding and (where appropriate) accommodating Métis concerns.

Canada has agreed to a negotiation process with MN-S that contemplates the Métis Land Claim, which Land Claim includes the lands to be occupied by the Runway. Métis Citizens are at risk of further alienation from their lands and resources without the appropriate consideration of their rights.

Considering the deficiencies in the Saskatchewan provincial review process and Canada's obligations to MN-S, it is critical that potential effects on Métis rights be considered as part of a comprehensive federal process. MN-S and NR2 respectfully submit that the Runway should be meaningfully assessed pursuant to the *Impact Assessment Act* before it proceeds and that the assessment should be conducted with meaningful Métis engagement.

Request for Expedited Review

MN-S and NR2 request that the Minister promptly review the Provincial Application which has been provided to Saskatchewan, and is attached, to confirm that the Runway is a designated project under the *Impact Assessment Act* or in the alternative to consider whether the Runway should be designated under the *Impact Assessment Act.*

In consideration of the potential that Saskatchewan may approve the Runway in May 2022, it is respectfully requested that the Minister conduct its review on an expedited basis.

Your office is invited to direct any questions or communication to my attention.

Yours truly,

Cassels Brock & Blackwell LLP

Arend J.A. Hoekstra
Associate

AH/
Enclosure

cc: President Glen McCallum, Métis Nation – Saskatchewan
Regional Director Leonard Montgrand – MN-S Northern Region II Clearwater Clear Lake
Matt Vermette, Chief Operating Officer, Métis Nation – Saskatchewan
Mark Calette, Senior Director Lands and Consultation, Métis Nation – Saskatchewan
Canadian Nuclear Safety Commission

Rook I Property – 2022 Site Program Application

Original Submission Date: 21 March 2022

Revision 1 Submission Date: 3 April 2022

Submitted To:

Saskatchewan Ministry of Environment

Uranium and Northern Operations – Environmental Protection

&

Lands North – Fish, Wildlife and Lands

Submitted By:

NexGen Energy Ltd.

Suite 200, 475-2nd Ave South
Saskatoon SK S7K 1P4

Table of Contents

List of Tables

List of Figures

List of Appendices

Executive Summary

The NexGen Energy Ltd. (NexGen) Rook I site is located approximately 155 km north of the town of La Loche and 640 km northwest of the city of Saskatoon. The site resides within Treaty 8 territory and the Métis Homeland. At a regional scale, the site is situated within the southern Athabasca Basin adjacent to Patterson Lake, along the upper Clearwater River system. Access to the site is from an existing 13-kilometre road off Highway 955.

NexGen is planning a comprehensive field program (the "2022 Site Program") focused on infrastructure upgrades to support increased regional activity and continued engineering data confirmation for the Rook I Project. The 2022 Site Program includes the expansion of existing infrastructure and the construction of new infrastructure to support increased activities on NexGen's properties in the coming years. The 2022 Site Program would support increased personnel levels at the Rook I property while maintaining NexGen's commitment to high Health, Safety, Environment and Quality ("HSEQ") standards.

Work associated with the 2022 Site Program is scheduled to take place between May 2022 and November 2022, with planned work packages summarized in the table below.

Work Package	Description of Activities	Scope
Temporary Exploration Camp Expansion	Expand temporary camp facilities and capacity to support increased site activity. No "in water works" would be required for proposed camp and facility upgrades as the current fresh water intake will support the increased camp capacity.	▪ Engineer, procure, fabricate, and install additional camp modules to provide up to 100 additional beds. ▪ Upgrade waste water treatment plant (including unlined storage pond) and install potable water treatment plant.
Temporary Airstrip Development	Temporary all-weather airstrip to facilitate year-round access to site via aircraft and augment emergency response capabilities. Proposed temporary airstrip lies within forested terrain and would not impact any wetlands, streams, or effluent drainages.	▪ Engineer and construct a 990 m long, 80 m wide temporary airstrip (including apron and taxiway).
Site Access Improvements	Conduct road improvements to increase worker/user safety, and material handling and equipment transport efficiencies. Proposed safety upgrades would occur on existing temporary accesses, and would not impact any wetlands or streams.	▪ Add turnout/staging areas along main site access road and existing temporary on-site access roads to improve line of sight. ▪ Extend/install culverts for surface water management. ▪ Main Access Road (11.6 km). ▪ On-site roads (8.3 km combined).

Work Package	Description of Activities	Scope
Project Design Confirmation Work	Drilling of shaft design confirmation holes to collect data to validate ground conditions and inform detailed engineering design. Drilling pads would be located in areas of previous disturbance and would not impact any streams or wetlands.	▪ Site clearing and design confirmation drilling at two (2) pad locations.
Geotechnical Confirmation Program	Development of test pits and boreholes to validate current understanding of subsurface conditions and support the detailed design of various infrastructure associated with the Rook I Project.	▪ Conduct subsurface investigation by means of test pits, boreholes, soil resistivity tests and laboratory tests of soil samples to provide required geotechnical design information.
Patterson Creek Bridge Improvements	Bridge improvements to support 2022 Site Program activities and safety upgrades. No "in water works" would be required for proposed bridge work.	▪ Install and maintain temporary erosion and sediment control measures. ▪ Install riprap in front of bridge piles. ▪ Install steel plate spanning over joint between the approach road and the steek deck at each end of the bridge. ▪ If warranted, replace pile caps and weld stiffeners, rebuild timber fill behind piles and install riprap in front of piles.
Sand and Gravel Lease	Develop borrow source for materials required to support 2022 Site Program activities. Proposed Sand and Gravel Lease would be located in previously disturbed areas and would not impact any wetlands or streams.	▪ Develop a sand and gravel lease (~5.26 ha) adjacent to temporary airstrip, utilizing previously disturbed areas.

1. Contact Information

1.1 Submitting Organization

This application has been prepared and is being submitted by NexGen Energy Ltd. (NexGen or the "Company"). NexGen maintains an office at:

NexGen Energy Ltd.
Suite 200, 475-2nd Ave South
Saskatoon SK S7K 1P4

NexGen is a well-funded Canadian corporation headquartered in British Columbia and focused on acquiring, exploring, and developing Canadian uranium projects. Incorporated as a Canadian uranium exploration and development company in 2012, NexGen is listed and publicly traded on the Toronto (TSX), New York (NYSE), and Australian (ASX) stock exchanges.

NexGen is led by a team of mining industry professionals with experience and expertise in exploration, mine development, uranium operations, and corporate finance. The Company holds a portfolio of prospective uranium exploration projects in the southwest Athabasca Basin, encompassing more than 209,000 ha of land strategically located along the edge of the Athabasca Basin. The southwestern properties host the high-grade uranium Arrow deposit, South Arrow deposit, Harpoon deposit, Bow deposit, and Cannon area deposit, all of which are located on NexGen's wholly owned Rook I property.

Contact information as it pertains to this application for the 2022 Site Program is included in Table 1-1.

Table 1-1 Application Contact Information

Name	Position	Phone Number	E-mail
Luke Moger	VP, Environment, Permitting & Licensing	(604) 970-0248	lmoger@nxe-energy.ca
Grant Greenwood	VP, Exploration	(306) 717-4543	ggreenwood@nxe-energy.ca
Kevin Oakes	VP, Project Development	(705) 465-1946	koakes@nxe-energy.ca

2. Rook I Background

The Rook I property (the "Property") is 100% owned and operated by NexGen, and the mineral dispositions are in good standing for assessment credit purposes. The Property consists of 32 contiguous mineral dispositions covering a total area of 35,065 ha. The Property is approximately centred at 620,000 m E and 6,385,000 m N (UTM NAD83, Zone 12N) and occupies portions of NTS map sheets 74F/7, 10 and 11 (Figure 2-1). The Rook I temporary camp is located at 603,230 m E and 639,1425 m N (UTM NAD83, Zone 12N), and the Arrow deposit is approximately centred at 604,400 m E and 6,393,600 m N (UTM NAD83, Zone 12N); both are located within NTS map sheet 74F/11. NexGen acquired the Property in 2012, and has since conducted various exploration and drilling efforts to improve NexGen's understanding of the mineral resources.

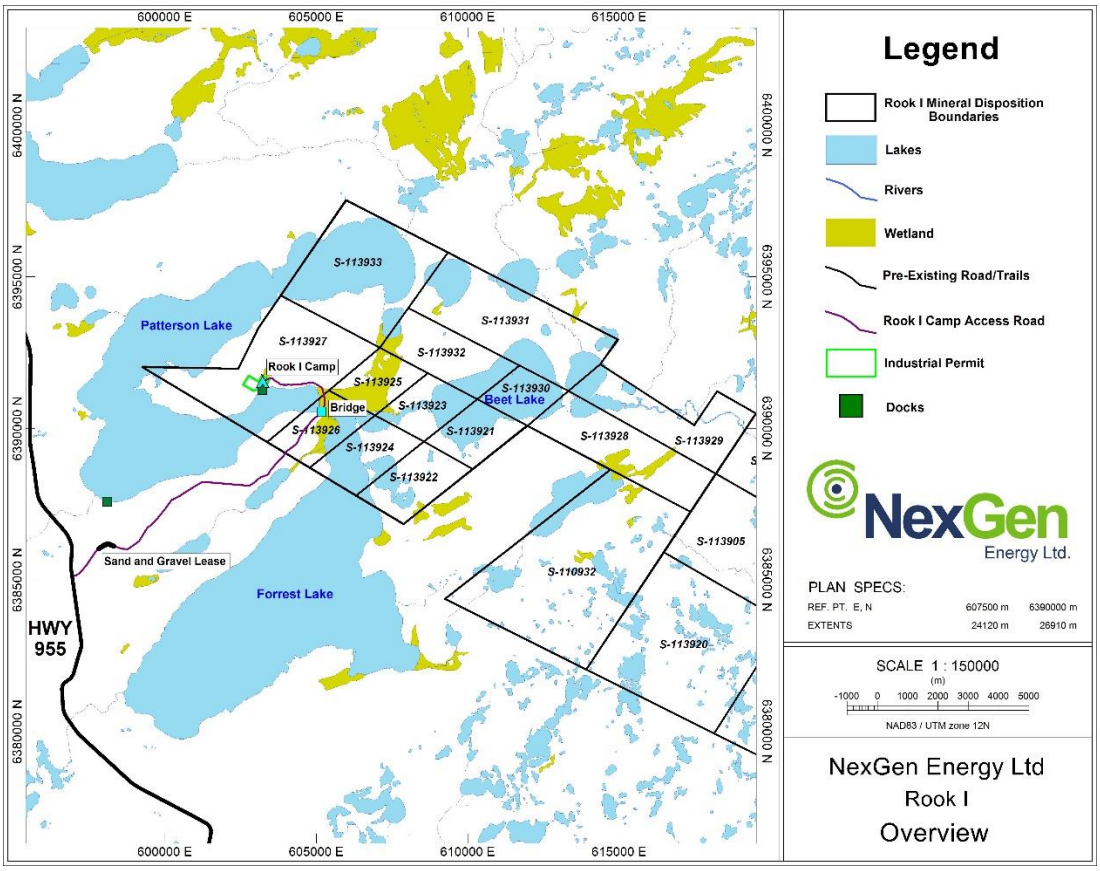

Figure 2-1 Rook I Property

2.1 Mineral Resource Description

In February 2014, NexGen discovered a high-grade uranium zone named "Arrow" on the Property. Arrow has been the primary focus of NexGen's drill programs to date and will continue to be a priority for future work. NexGen released an updated independent mineral resource on February 22, 2021. The updated resource reports a Measured Mineral Resource of 209.6 million pounds of U_3O_8 contained in 2.18 million tonnes grading 4.35% U_3O_8, an Indicated Mineral Resource of 47.1 million pounds of U_3O_8 contained in 1.57 million tonnes grading 1.36% U_3O_8, and an Inferred Mineral Resource of 80.7 million pounds of U_3O_8 contained in 4.39 million tonnes grading 0.83% U_3O_8.

2.2 Rook I Project

The Rook I Project (the "Project") is a proposed underground uranium mine and mill development on an undeveloped uranium deposit that NexGen owns entirely. The Project is located in northern Saskatchewan, being situated in the southern Athabasca Basin and on land adjacent to Patterson Lake. The Project site is approximately 155 kilometres north of La Loche, 80 kilometres south of the decommissioned Cluff Lake Mine, and 640 kilometres northwest of Saskatoon by air. The Project lies within the traditional territories of the Clearwater River Dene Nation (CRDN), Birch Narrows Dene Nation (BNDN), Buffalo River Dene Nation (BRDN), and Métis Nation – Saskatchewan (MN-S) – Northern Region 2.

3. Reason For Submission

The purpose of this application is to obtain additional surface dispositions and amend the existing Approval to Operate PO21-132 to obtain a new Approval to Construct and Operate. The application seeks authorization to expand and upgrade infrastructure to accommodate increased activities on NexGen properties and to confirm engineering data for the Project (together, the "2022 Site Program"). The 2022 Site Program would support increased personnel levels at the Property while maintaining NexGen's commitment to high Health, Safety, Environment and Quality (HSEQ) standards.

This application details all planned construction, infrastructure upgrades, and field data collection activities associated with NexGen's 2022 Site Program. Additionally, this application includes information about the proposed temporary infrastructure requiring surface tenure, including its size, location and surrounding environmental conditions.

This document has been prepared using existing environmental and preliminary engineering information, professional judgment, and information from previous and ongoing public and Indigenous engagement and consultation. The contents of this document are based on the conditions and information known when the document was prepared. Any changes to the scope of the 2022 Site Program or land disposition requests will be reviewed and discussed with the Ministry of the Environment (ENV). Following approval of the 2022 Site Program by the ENV, NexGen would expand on the management plans outlined in this document to demonstrate NexGen's commitment to environmental protection and sustainability, and ensure that environmental commitments are met and mitigation measures are monitored and evaluated for effectiveness.

3.1 Existing Infrastructure and Disposition Authorizations

To support the Project's advanced exploration efforts, NexGen holds temporary surface dispositions associated with the mineral claims that make up the Property. Currently, NexGen holds a Crown Land Industrial Disposition Permit (Permit #10020786 [formerly 603418]), authorizing NexGen to operate and maintain a 25.5 ha Crown Land parcel consisting of a field operation base and a temporary camp (Figure 3-1). Within the Crown Disposition area, NexGen currently holds an Approval to Operate a Storage Facility and Store Hazardous Substances and/or Waste Dangerous Goods (Approval No. PO21-132) issued by the ENV Environmental Protection Division – Uranium and Northern Operations. Industrial Disposition Permit Crown Land (Permit #10020786) currently encompasses the temporary infrastructure detailed in Table 3-1.

Table 3-1 Existing Temporary Infrastructure on the current Rook I Industrial Disposition

Temporary Infrastructures	UTM NAD 83, Zone 12N	
	Easting	Northing
Main Camp	603,230	6,391,425
Core Logging Camp	602,715	6,391,410
Core Storage Site	602,809	6,391,424
Aggressive Drilling Shop	602,840	6,391,400
Helicopter Landing Pad Main Camp – General	603,038	6,391,409
Helicopter Landing Pad Main Camp – Rescue	603,142	6,391,479
Hot Drum Storage	604,035	6,393,240
Hazardous Materials and/or Waste Dangerous Goods Storage Facility	603,175	6,391,437

Figure 3-1 Current Licensed Industrial Disposition Area

Other Crown Land authorizations currently associated with the Property include: two Crown Land Dispositions for docks within Patterson Lake; a Crown Land Disposition for a sand and gravel lease; a Crown Land authorization permitting NexGen to conduct maintenance of culverts along the access road from Provincial Highway 955 to the Rook I temporary camp; and a Crown Land works authorization to restore linear disturbances within the Property that are no longer in use. NexGen also holds a Crown land authorization permit to conduct non-invasive field assessments to characterize areas suitable for use as borrow pits set to expire at the end of March in 2022. A summary of Crown Land authorizations currently held by NexGen for the Property is provided in Table 3-2.

Table 3-2 Rook I Property – Existing Crown Land Authorizations

Crown Land Disposition	Authorization Number	Expiration Date
Crown Land Disposition – Dock(s)	603367 & 603368	3/31/2024
Crown Resources Works Authorization (Non-invasive: Site Monitoring)	20-15-00061	3/31/2022
Crown Land Disposition Permit(s) Sand and Gravel Surface Lease	500723	3/31/2027

Crown Land Disposition	Authorization Number	Expiration Date
Crown Land Work Authorization - Culvert maintenance (Main Access)	10020786 (Formerly 603748)	3/31/2026
Crown Land Work Authorization Reclamation Program	21-15-00004	3/31/2023

3.2 Program Description

NexGen is planning a comprehensive field program (i.e., the 2022 Site Program) to upgrade infrastructure to accommodate increased regional activity and confirm engineering data for the Project. The 2022 Site Program proposes expanding existing infrastructure and constructing new infrastructure to accommodate anticipated increases in activity and field personnel on NexGen's properties over the coming years. All proposed works associated with the 2022 Site program are on Crown Land administered by the ENV.

Table 3-3 provides a description of the proposed temporary works associated with the 2022 Site Program, as illustrated in Figure 6-1.

Table 3-3 Proposed 2022 Temporary Infrastructure and Site Clearing Activities

Temporary Camp Upgrades
• Engineer, procure, fabricate, and install new camp modules to provide up to 100 additional beds. The expanded camp would include a new kitchen and dining facility, additional administration/office space, and a recreation area. The additional spacing and camp upgrades are necessary to accommodate an anticipated increase in onsite activities and to address and effectively manage any precautionary COVID-19 health orders directed by the Saskatchewan Health Authority (SHA) during field operations. • Upgrade the Wastewater Treatment Plant (WWTP) capabilities to accommodate an increased workforce. • Install a Potable Water Treatment Plant (PWTP) to support the site (including the expanded workforce). The PWTP would not require any "in water' works as the system would utilize the same fresh water intake associated with the current temporary water license (Licence: NW-E8-105756).
Temporary Airstrip (centred approximately at 605,319.2 m E, 6,392,581.23 m N)
• Engineer and construct a temporary all-weather airstrip to allow for year-round access to the site via aircraft to decrease vehicle traffic, increase travel reliability, and augment emergency response capabilities.
Sand and Gravel Lease (centred approximately at 604,513.19 m E, 6,393,375.91 m N)
• Develop a Sand and Gravel Lease (approximately 5.62 ha) to provide the clean aggregate materials required to construction the temporary airstrip and safety upgrades to temporary access roads. The proposed location of the Sand and Gravel Lease is in a previously disturbed area and would not impact aquatic habitat. • The Sand and Gravel Lease location was selected to reduce haul traffic on the main site access road and Patterson Creek Bridge. The Proposed Sand and Gravel lease would utilize existing temporary access when hauling materials to the temporary airstrip.
2022 Design Confirmation Drilling Pad
• Site clearing and design confirmation drilling investigations at two pad sites (approx. 1.72 ha in area) on previously disturbed locations to validate ground conditions, drilling accuracy, and inform detailed engineering design. • West Pad (1.00 ha) centred at approximately 604,137 m E, 6,393,866 m N; East Pad (0.72 ha) centred at approximately 604,410 m E, 6,393,866 m N.

- Approximately 65 confirmatory drill holes would be completed to a maximum depth of 220 m to support the design confirmation program. Each confirmatory drill hole would have casings and HQ rods installed in each hole before being capped.

2022 Geotechnical Investigation Program

- Conduct geotechnical design study in mineral dispositions S-113925, S-113927, and S-113933 to obtain further information on subsurface conditions necessary to support the detailed design of various Project infrastructure.
- Conduct soil tests pit assessments at eight test pit locations as well as complete six soil resistivity tests and seven sonic boreholes. At each sonic borehole investigation location, standard penetration test (SPT) in-situ testing will be performed, and standpipe piezometers or sloped inclinometers would be installed.

2022 Road Safety Improvements

- Conduct road improvements to increase worker/user safety, and material handling and equipment transport efficiencies on the following existing temporary access roads:
  - Main Access from Highway 955 to Rook I camp (11.6 km)
  - On-site access road (2.2 km).
  - Access from Camp to confirmatory drill Pads locations (3.2 km).
  - Temporary airstrip access road (1.3 km)
- Access upgrades would add turnout/staging areas every kilometre, improve line of sight and road signage, and install/extend culverts to manage surface water runoff.
- Safety upgrades to the temporary access roads would not require any 'in water' work or impact any aquatic habit.

Repair/ Upgrade Patterson Creek Bridge

- Install or place riprap in front of the bridge piles.
- Install steel plate spanning over the joint between the approach road and the steek deck at each end of the bridge.
- If warranted, replace pile caps, and add stiffeners and rebuild timber fill behind bridge piles.
- Install and maintain temporary erosion and sediment control measures.
- Bridge upgrades would not require any 'in water' works.

3.2.1 Environmental Conditions

The Property is located within the Boreal Plain Ecozone in the Firebag Hills landscape area within the Mid-boreal Uplands Ecoregion. The landforms in this area are more akin to those of the Boreal Shield than the Boreal Plain, being characterized by hummocky, sandy glaciofluvial, and glacial till deposits. Although portions of the site area have been impacted by previous clearing and exploration activities, the wildlife habitat and vegetation are also characteristic of the Boreal Shield, where frequent fires have favoured jack pine dominance with a lichen understory. On the slopes of eskers, a mixture of black spruce (*Picea mariana*) and jack pine grows, while closed stands of black spruce grow in boggy lowland areas.

The Property is adjacent to Patterson Lake and Forrest Lake. Patterson Lake and Forrest Lake are two of the largest water bodies within the are of the Property, and are connected via Patterson Creek, which lies in the northern portion of S-113026. Both lakes are part of the Clearwater River watershed. The Clearwater River extends east-southeast from Beet Lake and eventually drains south off the Property. Environmental baseline studies have been undertaken to gather detailed information about the area's current biophysical, cultural, and socioeconomic conditions and provide a basis for the proposed Project's future environmental assessment and long-term monitoring programs.

Wildlife species known to occur in the region include moose, woodland caribou, deer, black bear, wolf, and all other mammal species commonly found in boreal forest ecosystems. In addition, walleye, lake trout, northern pike, arctic grayling, whitefish, and perch have been observed in Patterson and Forrest lakes. Patterson Creek

provides suitable habitat for walleye, lake whitefish, longnose sucker, white sucker, arctic grayling, and yellow perch.

3.3 Surface Tenure Required for the 2022 Site Program

This section contains a summary of the surface tenure requirements requested in this application. Table 3-4 provide a brief summary of each requested authorization, with more detailed information provided in the following subsections.

Table 3-4 2022 Site Program Areas Requiring Crown Land Surface Tenure

Temporary Infrastructure	Permit type
Site Access Road from Highway 955 to Rook I Camp	Easement (Multi-year: 10-year)
Temporay Airstrip and Apron	Diposition/Miscellanous Use (Multi-year: 10-year)
Sand and Gravel Lease	Sand/Gravel Disposition

3.3.1 Temporary Airstrip and Apron

NexGen proposes to engineer and construct a temporary all-weather airstrip during the 2022 field season to allow for year-round access to the Property via aircraft. The operation of a temporary airstrip would reduce traffic volumes on Highway 955 and the site access road, reduce risks associated with road travel on Highway 955 and the site access road (particularly during winter), and provide enhanced emergency response capabilities at the Rook I site. The proposed temporary airstrip is located in Sec 08 Township 100 Rand 20 Meridian 3 and within NTS Map Sheet 74F/11.

The temporary airstrip would be centred at approximately UTM 605,319.2 m E, 6,392,581.23 m N (NAD 83 12N E). The proposed temporary airstrip would be 990 m long and 80 m wide, and the dimensions for the proposed apron are 75 m by 100 m. The area required for the Crown Land Distribution for the proposed temporary airstrip would be approximately 60.7 ha (Figure 3-2). The UTM coordinates of the corners associated with the proposed Crown Land disposition for the temporary airstrip and apron are detailed in Table 3-5 below.

Table 3-5 Proposed Crown Land Disposition for Airstrip UTM Coordinates

Temporary Disposition	Corner	UTM (NAD83, Zone 12N)		
		Easting (m)	Northing (m)	Elevation (m)
Crown Land Area (60.7 ha)	Northeast Corner	605,869.08	6,393,081.38	562
	Southeast Corner	605,990.84	6,392,651.04	563
	Southwest Corner	604,684.22	6,392,281.36	566
	Northwest Corner	604,562.48	6,392,711.63	573

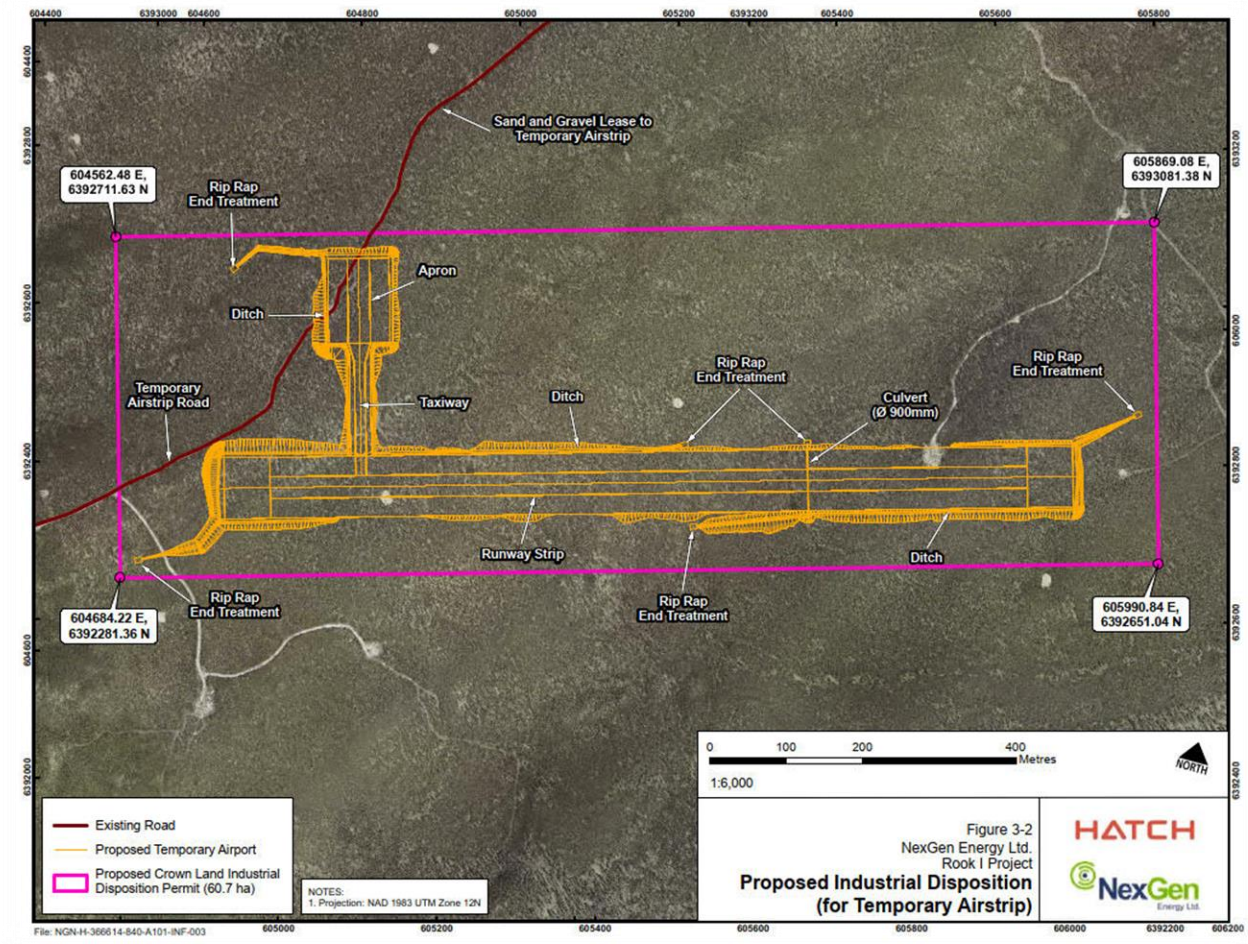

Figure 3-2 Proposed Industrial Disposition for Temporary Airstrip

Field observations made by Golder (2021) indicate the landscape surrounding the proposed temporary airstrip ranges from gently rolling in the eastern section and hummocky within the westernmost area near the terminus of the airstrip. Soils within the proposed temporary airstrip area are dominantly composed of Eluviated Dystric Brunisol. These soils were found to contain moderately coarse to coarse-textured (i.e., loamy sand.) glaciofluvial materials that are moderately stony (i.e., 1% to 15%) within the eastern sections and exceedingly stony in areas of high relief (slopes >15%) (Golder 2021). Vegetation surrounding the proposed temporary airstrip is a regenerating coniferous forest dominated by jack pine (*Pinus banksiana*) and black spruce (*Picea mariana*). Previous environmental assessments have not identified any aquatic habitat or effluent streams within the proposed area associated with the Industrial Disposal (Golder 2021, CanNorth 2021a, Omnia 2021).

3.3.2 Proposed Sand and Gravel Surface Lease

A new Sand and Gravel Lease is proposed (Figure 3-3) to supply clean aggregate for the temporary airstrip and temporary access road upgrades. The proposed Sand and Gravel Lease would be located near the planned temporary airstrip in an area that has previously been disturbed. Compared to the existing Sand and Gravel lease (located near the beginning of the site access road near Highway 955), the development of a borrow source near

the temporary airstrip is expected to provide logistical and safety benefits and significantly reduce haul traffic across the Patterson Creek Bridge. The temporary airstrip would be accessible via existing trails, avoiding the need to construct new access roads.

The proposed Sand and Gravel Lease is located within NTS map sheet 74F/11 and lies within the SW Quarter Section of Section 17 in Township 100, Range 20, Meridian 3. The Sand and Gravel Lease would be centred at approximately 604,535 m E and 6,393,535 m N (UTM NAD83, Zone 12N) and overlay a previously disturbed area sparsely vegetated with shrubs 1-5 m tall (Omnia Ecological Services 2021). Soils within the proposed lease area are composed of Eluviated Dystric Brunisol containing moderately coarse to coarse textured (i.e., loamy sand, sand) moderately stony glaciofluvial materials (i.e., 1% to 15%) (Golder 2021). There are no wetlands or aquatic habitats in conflict with the proposed Sand and Gravel Lease.

The proposed Sand and Gravel Lease has a hexagonal shape and is approximately 5.26 ha in area. The proposed UTM coordinates of the corners associated with the proposed Sand and Gravel lease are provided in Table 3-6.

Table 3-6 UTM Coordinates of the Proposed Sand and Gravel Lease

Corner	UTM (NAD83, Zone 12N)		
	Easting (m)	Northing (m)	Elevation (m)
North Corner	604,532	6,393,652	545
East Corner	604,688	6,393,584	551
Southeast Corner	604,620	6,393,468	562
South Corner	604,489	6,393,404	565
Southwest Corner	604,397	6,393,426	561
West Corner	604,389	6,393,523	557

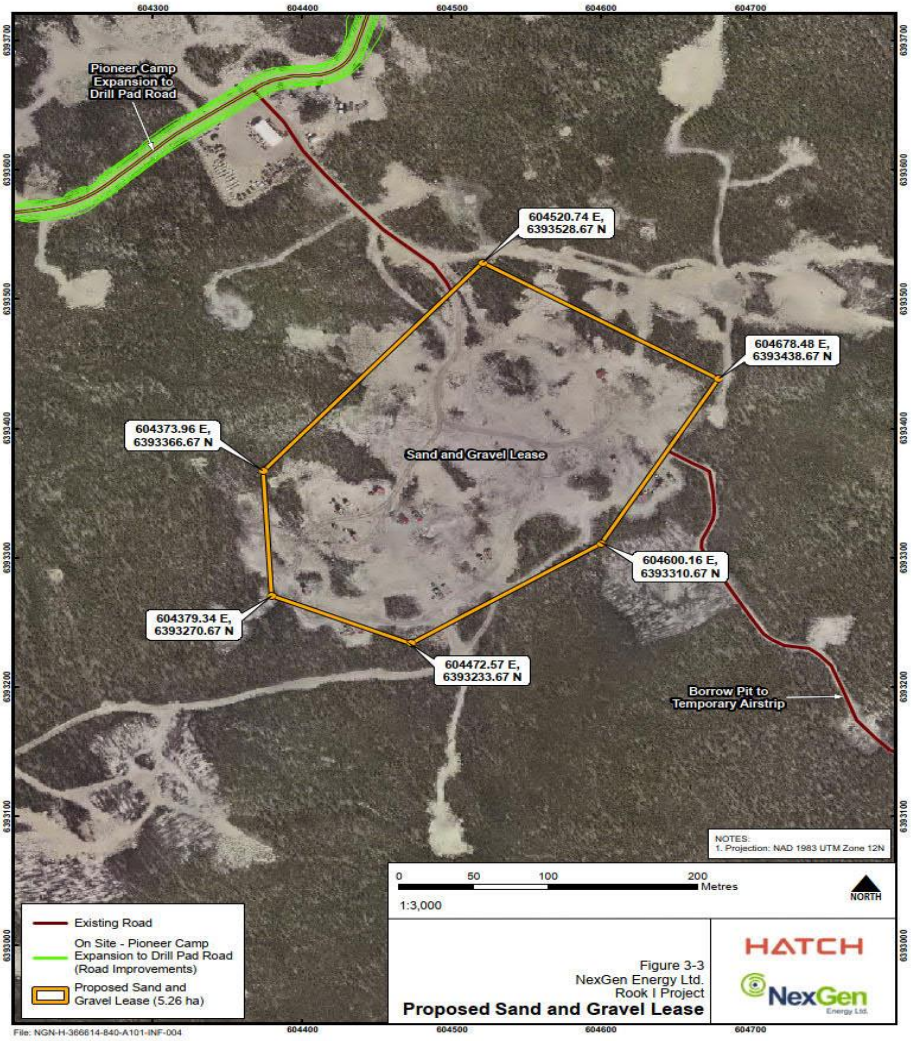

Figure 3-3 Proposed Sand and Gravel Lease

3.3.3 Main Access (Easement)

NexGen currently maintains an access road and bridge from provincial Highway 955 to the Rook I camp (Figure 3-4) and holds a Crown Land Work Authorization (10020786, formerly 603748) to maintain eight culverts along the right of way access road in conjunction with Permit No. 603418. NexGen is requesting a multi-year (10 years or longer) surface land easement for the main site access road to preserve the right of entry and maintenance of this access road.

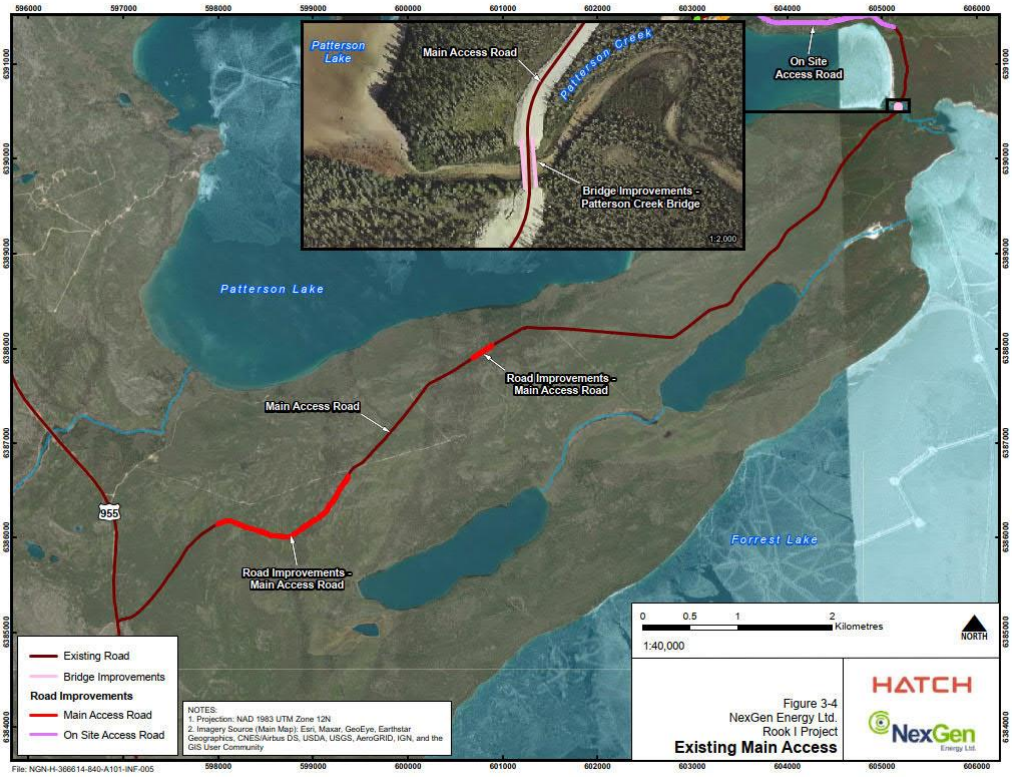

Figure 3-4 Main Access from Highway 955

4. Approval to Construct and Operate – 2022 Proposed Works

This section discusses the purpose and goals of proposed 2022 Site Program construction and drilling activities that require authorization from the ENV.

4.1 Temporary Camp Expansion

NexGen is currently operating a temporary 100-person industrial camp (i.e., the Rook I camp) within the northern quarter sections of 06-100-20-3. The Rook I camp lies along the northern shores of the south arm of Patterson Lake. To support the 2022 Site Program, accommodate increased regional exploration activity planned in 2022 and subsequent years, and to augment existing COVID-19 protocols, NexGen is proposing to increase the capacity of the Rook I camp by expanding the camp area by 0.84 ha to accommodate the addition of up to 100 new beds.

The proposed temporary camp expansion would occur within NexGen's existing Crown Industrial Disposition area (Permit #10020786; formerly 603418). The proposed expansion would be designed with considerations for HSEQ and COVID-19, and would consist of installing new camp modules to accommodate up to additional 100 beds. Expansion of the Rook I camp capacity would increase water and sewage demands on the existing water treatment and waste water treatment infrastructure, which would subsequently require upgrading.

Figure 4-1 shows the area in which the proposed temporary infrastructure installations would occur as well as the location of the proposed waste water storage pond and associated monitoring wells. All work associated with the temporary camp expansion would be within the existing Industrial Crown Land Disposition (Permit #10020786; formerly 603418).

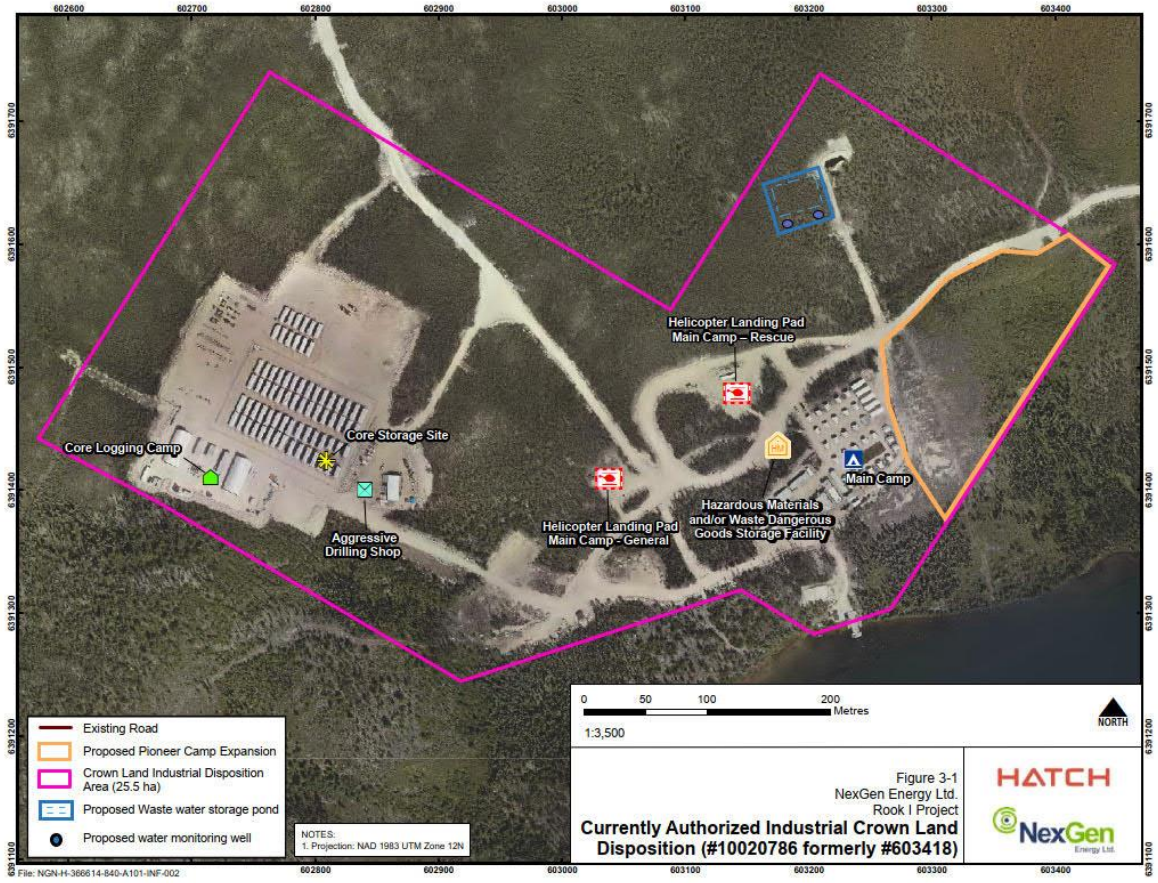

Figure 4-1 Temporary Camp Expansion with Industrial Crown Land Disposition

4.1.1 Waste Water Treatment Plant

The existing waste water treatment plant (WWTP) at the Rook I camp can accommodate approximately 100 personnel and has been designed to discharge greywater to a seepage pit. To accommodate the demands that the expansion of the Rook I camp would place on the existing wastewater treatment system, NexGen is proposing to expand the capacity of the WWTP to 70.4 m^3/day. The new WWTP would be modular in design and housed in road-transportable, secure, insulated, weather and wildlife-proof containers that have been designed to the Water Security Agency (WSA) Sewage Works Design Standards. The modular WWTP would manage, monitor, and treat all wastewater generated at the temporary camp to meet Saskatchewan's surface water quality objectives for aquatic species (EPB 356). All treated waste water effluent would be conveyed to an unlined waste water storage pond designed and developed to receive treated waste water before filtering into the subsoil. Through designing and operating the waste water treatment plant facilities to meet regulated guidelines for protection of the

receiving environment, no downstream impacts to receptors are anticipated. The treated waste water storage pond would be enclosed with adequate fencing to discourage trespassing and prevent wildlife and public access. Appropriate sub-surface geotechnical and/or hydrogeological explorations and reports would be undertaken to establish the suitability of proposed materials to meet anticipated conditions. Where a geotechnical study substantiates the presence of groundwater, either by test holes or other knowledge, or where any environmental harm could occur in the event of a leak, monitoring wells would be established, and a monitoring plan would be prepared and submitted for approval.

4.1.2 Potable Water Treatment Plant (PWTP)

NexGen holds a Temporary Water Rights License (NW-E8-105756) for the withdrawal of water from Patterson Lake for use in the existing temporary exploration camp. This license is renewed on a regular basis as required. The existing water treatment plant at the Rook I site was designed to provide non-potable, hygienic water to camp occupants, with water sourced from Patterson Lake. To accommodate the demands of the planned expansion of the Rook I temporary camp, NexGen is proposing to increase the capacity of water treatment up to 70.4 m3/day. Additionally, NexGen is proposing to upgrade the water treatment process to serve as a potable water source.

To supply enough water to the increased camp population envisaged in the 2022 Site Program, the current water treatment plant would need to be upgraded. The existing 1,000-gal holding tank would need to be expanded, as would other individual components such as pumps, filters, ultraviolet (UV) lamps, and chemical metering. The proposed PWTP would support the total population residing in the expanded temporary camp, in addition to providing a source of potable water for the Rook I site.

NexGen proposes constructing a new potable water treatment plant (PWTP) to meet the total design demand of 70.4 m^3/day in order to accommodate the expansion of the Rook I camp. The proposed PWTP would be designed to treat raw water to satisfy the most stringent parameters specified by Health Canada's Drinking Water Standards and Saskatchewan's Drinking Water Quality Standards and Objectives, and would be built following the WSA Waterworks Design Standards (EPB 501) and NexGen's Environmental Design Criteria. Because the proposed PWTP would not necessitate modifying (i.e., expanding) the existing water intake, no "in-water works" would be required in connection with the proposed camp expansion.

4.2 Access and Bridge Improvements

NexGen would not develop any new access roads during the 2022 Site Program. The objective of the access road enhancement work planned for the 2022 field season is to improve worker/user safety and the efficiency of material handling and equipment transport. Existing trails and access roads will continue to be maintained by NexGen, with certain areas of the existing trails targeted for widening to conduct safety and transportation efficiency improvements. In addition to road improvements, smaller areas within the operational works area may be selected to be cleared to accommodate temporary facilities, environmental protection, material storage and laydowns, and covered storage and containment areas. Access upgrades would not disturb any additional areas except for:

- Brush/tree clearing to improve sight lines – at the bridge and horizontal road curves.
- Add turnouts/staging areas – for truck passing (approximately one every kilometre along roads).
- Extend/install new culverts to manage surface water during the spring and summer run-off.

- Cut and fill with materials sourced from the existing, permitted borrow pit (Permit #500723).
- Improve road markers and signage (e.g., road edge reflectors, kilometre markers, radio call points, general signage).

Existing temporary access works to be upgraded as part of the 2022 Site Programs are summarized in Table 4-1 and detailed in Figure 6-1.

Table 4-1 Existing Temporary Access Upgrades Proposed for 2022 Site Program

Temporary Access Name and Location	Distance	Status
Main Site Access Road (Highway 955 to Rook I Gate)	11.6 km	Existing
On-site Access Road (Rook I Gate to Rook I camp)	2.2 km	Existing
Temporary Airstrip Access Road (Rook I camp to Proposed Temporary Airstrip)	1.3 km	Existing
Access from Camp to Confirmatory Drill Pads Locations	3.2 km	Existing
Haul Road from Proposed Sand and Gravel Lease to Temporary Airstrip	1.4 km	Existing

The Patterson Creek Bridge provides access across Patterson Creek and is located approximately 10.2 km east of Highway 955 along the main site access road. The current bridge span is 21.3 m (70'-0") with a maximum load capacity of 100,000 lbs. between abutments, with the load crossing the bridge symmetrically at a posted speed of 10 km/hr. Bridge upgrades would be required to support the 2022 Site Program to improve the safety and integrity of the structure. Construction upgrades proposed for the bridge as part of the 2022 Site Program would not require any "in-water" work, with the following activities proposed:

- Install and maintain temporary erosion and sediment control measures.
- Install or place riprap in front of the piles.
- Install steel plate spanning over the joint between the approach road and the steek deck at each end of the bridge.
- If warranted, replace pile caps and weld stiffeners, rebuild timber fill behind piles and install riprap in front of piles.

There would be no instream works or impacts to aquatic habitat associated with the proposed upgrades to Patterson Creek Bridge. Construction and upgrade activities would ensure that all construction wastes, overburden, soil, or other substances are stored in such a manner as to reduce the potential for entry into any streams or watercourses. Construction works would also ensure to maintain riparian vegetation and an undisturbed vegetated buffer between on land activities and the high-water mark of Patterson Creek. If construction work is necessary within a riparian zone, all construction vehicles would be clean and maintained free of fluid leaks and grease. All machinery would only be serviced, refuelled, and washed in designated areas located at least 30 m from the Ordinary High-Water Mark of any watercourse or wetland.

During the onsite activities associated with the proposed Patterson Creek Bridge upgrades, routine onsite environmental monitoring would be conducted to ensure that erosion and sediment control measures are utilized. Supplemental erosion control measures would be implemented when the risk of erosion and sedimentation exists.

Environmental monitoring would confirm that the erosion and sediment control measures are performing as expected and are in good condition.

4.3 Temporary Airstrip and Apron

The proposed temporary airstrip and apron are located in regenerating coniferous forested terrain and would have no adverse effect on sensitive wildlife or aquatic habitat. The construction of the temporary airstrip would include the following activities:

- Brush/tree clearing – full length/width of the temporary airstrip and apron as well as the takeoff/approach divergence (as required).
- Building out full width of the temporary airstrip (approx. 8.5 ha) and include taxiway (approximately 0.35 ha) and apron (approximately 0.75 ha).
- Site clearing and earthworks to reduced elevation/profile.
- Gravel surfacing (sourced from proposed Sand and Gravel Lease).

4.4 Sand and Gravel Surface Lease

NexGen is proposing to develop a 5.26 ha Sand and Gravel Lease to provide the clean aggregate materials required to construct the temporary airstrip. The proposed Sand and Gravel Lease location was selected to utilize a previously disturbed area and reduce haul traffic over the Patterson Creek bridge (i.e., if using the existing Sand and Gravel Lease on the main site access road). Within the proposed Sand and Gravel Lease, an area would be cleared to accommodate aggregate screening and crushing equipment and material processing and stockpiling.

The layout designs for the Sand and Gravel Lease would allow for pit development while also limiting erosion and future disturbance. Stockpile design would ensure that stockpile locations are located on stable ground and incorporate setbacks to ensure material is not inadvertently displaced off-site. In addition, erosion and sediment control measures would be incorporated into the Sand and Gravel Lease management to prevent loss of material or impacts to the surrounding environment.

4.5 Design Confirmation Drilling Program

The design confirmation drilling program is required to provide in situ data necessary to inform the future design of the production shaft and exhaust shaft for the proposed Project.

Two drill pads would be cleared in the northern portion of Mineral Claim S-113927 to accommodate the design confirmation drilling program. Each drill pad would be cleared to a maximum dimension of 100 m by 100 m in previously disturbed areas. The location of the West Drilling Pad would be centred at approximately 604,143 m E, 6,393,859 m N (UTM NAD 83 12N) and the East Drilling Pad would be centred at 604,410 m E, 6,393,939 m N (UTM NAD 83 12N). On-site activities associated with the drill pads would include:

- Site clearing and benching drill pad area to support drilling.
- The development of a small laydown area required for material storage and temporary facilities to support drilling operations.
- Silt control and storm water management.
- Balance cut/fill with slope stabilization on cut side.

Approximately 65 confirmatory drill holes would be drilled in support of the confirmation program; this is the completed hole count, considering that some holes may be terminated during the investigation.

- Shaft confirmation holes would be drilled to a maximum depth of 220 m.
- Casing, HQ rod, and high-density polyethylene (HDPE) injection strings would be installed in each hole.
- Holes would be capped upon completion.

4.6 Geotechnical Site and Soil Investigation Program

In addition to the confirmation drilling program, NexGen is proposing to execute a land-based geotechnical site investigation program to inform final design of the Project across the S-113926, S-113927 and S-113933 dispositions. The purpose of the 2022 geotechincal drilling program is obtain information on existing subsurface conditions required to validate current geotechnical information and support detailed design of the Project. In order to obtain requisite geotechnical information, the proposed works associated with the 2022 site investigation program consists of eight test pit locations, six soil resistivity tests and seven sonic boreholes.

Six soil test pits are proposed in mineral disposition S-113927, and two soil test pits are proposed in S-113927 at target locations. All soil test pits would be completed with an excavator to an estimated depth of 5 m below ground surface (mbgs). The disturbance footprint for each soil test pit area is estimated to be approximately 10 m × 12 m and comprise an area for an excavator, a spoil pile, and the soil pit. In addition to soil test pits, the 2022 geological program proposes drilling seven targeted sonic boreholes totalling approximately 235 mbgs of drilling at locations across three mineral dispositions. At each location, standard penetration test (SPT) in-situ testing would be conducted, and standpipe piezometers or sloped inclinometers would be installed in each borehole.

A sonic drill rig would advance the drilling of seven boreholes totalling approximately 235 mbgs. At each location, SPT in-situ testing would be conducted, and standpipe piezometers or sloped inclinometers would be installed in each borehole. Each sonic borehole location would require an estimated 15 m × 25m drilling pad to safely accommodate the equipment necessary for the planned activities.

When available, existing temporary access roads would provide access to proposed drilling and testing locations suggested for the 2022 geotechnical site investigation program. All new temporary access roads and clearings required for the 2022 geotechnical investigation program would be documented and reclaimed as specified in BMP 012 of the Saskatchewan Mineral Exploration and Government Advisory Committee's Mineral Exploration Guidelines for Saskatchewan (SMEGAC 2016).

All guidelines, protocols and BMPs specified in NexGen's 2022 Environmental Management Plan (EMP) and conditions associated with relevant regulatory permits (e.g., Aquatic Habitat Protection Permit and Forest Product Permit) would be followed during site investigation activities. No wetlands or aquatic habitats are anticipated to be impacted by the geotechnical drilling and soil testing proposed during the 2022 season.

5. Rook I 2022 Site Program Schedule Overview

Works associated with the proposed 2022 Site Program would begin once all necessary permits and approvals were obtained. Assuming a start date of May 2022, the 2022 Program would be completed near the end of November 2022. Table 5-1 provides details on the estimated timelines for all activities associated with the 2022 Site Program. The removal of vegetation is expected to be the first step in the construction process, followed by

the development and construction of the temporary camp, sand and gravel lease, and improvement to the on-site access roads. The design confirmation drilling program's earthwork activities are expected to begin in early June 2022, with drilling confirmation beginning in the early July 2022. The construction of the temporary airstrip is expected to begin near the middle of June 2022 and continue until early October 2022. Upgrades to the main site access road are anticipated to begin near the end of May 2022, with safety upgrades to the Patterson Creek Bridge starting near the beginning of June 2022. The proposed geotechnical site investigation program is tentatively scheduled to begin near the end of August 2022.

Table 5-1 2022 NexGen Site Program Schedule

Activity	Q1			Q2			Q3			Q4		
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Clearing and Grubbing May 13th to June 18th												
Temporary Camp area and Facilities Construction and Setup May 25th to June 28th												
Patterson Creek Bridge Upgrades June 4th to June 17th												
Sand and Gravel Lease Site Development and Screening and Wash Plant Set up June 7th to June 17th												
Design Confirmation Drill Pads Site Development June 11th to June 19th												
Safety upgrades to internal temp access roads May 31st to July 9th												
Temp Airstrip and Apron Construction June 15th to Oct 8th												
Main Site Access Road Works July 3rd to July 7th t												
Confirmatory Drilling July 2nd to Nov 18th												
Geotechnical Investigation Program Sept 1st to 26th												

6. Overview Map

6.1 2022 Site Program Overview Map

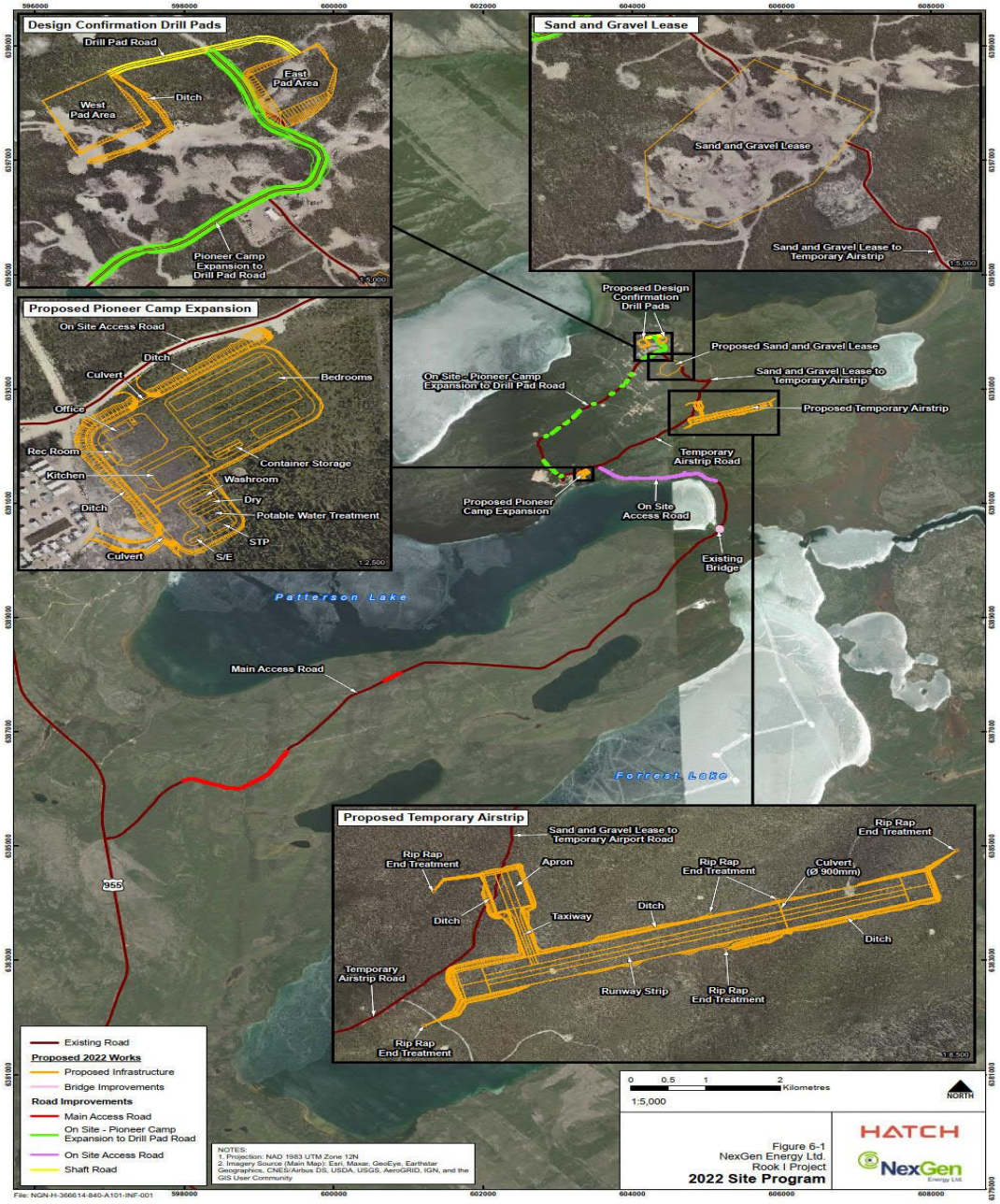

Figure 6-1 2022 Site Program Overview

7. Environmental Management Plans

As part of the 2022 Site Program, NexGen would develop and implement an EMP for construction- and permitting-related obligations. The EMP would serve as the foundation for environmental management during construction. The EMP would establish a framework for legislative and contractor responsibilities, as well as performance-based standards, that all NexGen contractor(s), and anyone engaged by or through the contractor(s) in connection with the 2022 Site Program works would be required to follow. The purpose of the EMP would be to provide guidance to all 2022 Site Program personnel, contractors, and third-party service providers in order to ensure that safe, compliant, and socially and environmentally responsible measures are implemented during associated works. The objectives of the EMP would be to ensure that environmental commitments are met, monitored, and evaluated for effectiveness and that data is communicated to the 2022 Site Program management team in a timely manner to allow for any necessary adjustments.

7.1 Emergency Response Plan

NexGen has developed an Emergency Response Plan (ERP) designed to prevent environmental emergencies and to ensure rapid and effective response and management of incidents, should they occur. NexGen's ERP provides guidelines and BMPs to reduce the potential for environmental emergencies and to be prepared for and respond to foreseeable emergency scenarios.

The objectives of the ERP include measures to:

- Identify activities that have the potential to result in environmental emergencies related to hazardous material spills.
- Provide BMPs to reduce the potential for spill emergencies, and to respond to events in an effective manner to mitigate or minimize environmental impacts.
- Provide a monitoring and incident reporting program in compliance with relevant BMPs, standards and legislation.
- Identify personnel responsibilities for spill emergency response.

7.2 Spill Prevention Plan

NexGen is committed to protecting the environment in the event of environmental emergencies such as unauthorized or accidental discharges of products or wastes to water, ground, or air. Through effective planning, development, and implementation of an Emergency Response and Spill Prevention Plan (ERSPP), the potential of impacts to the environment and the health and safety of employees and the public during emergency situations would be minimized and mitigated.

The ERSPP would detail methods and BMPs for preventing spills and provide detailed protocol for how to respond in the event of a spill to minimize environmental impacts.

7.2.1 Spill Prevention and Response Plan

All on-site staff would be required to complete a general environmental education and awareness program, which would include a pre-construction spill response and emergency response education and awareness training. The following procedures outline several of the preventative actions that would be detailed in the environmental and

awareness program's strategies for preventing or minimising spills. During site orientation, all onsite personnel would be provided with:

- The location of all spill prevention structures, spill response materials and locations, location of refueling areas and washdown areas (if any), drainage structures, and sensitive receptors within the area of 2022 Site Program activities.
- The location of up-to-date Safety Data Sheets (SDS) for all chemicals that would be handled on site.
- The requirements to regularly inspect chemical storage and handling areas, and potential spill and drainage areas to identify deficiencies and opportunities for improvement and to regularly inspect and restock spill response materials to ensure that the materials are ready and available for a spill event.
- The standards for mandatory daily vehicle and equipment inspection protocol where vehicles and equipment are inspected for leaks and excess grease and to ensure that purpose-built drip trays are in place under all equipment that is parked for longer than 24 hours and to ensure that drip trays are free of standing water and the water is disposed of in an environmentally friendly manner which does not cause pollution.

7.2.2 Spill Response Plan

NexGen would develop a 2022 Spill Response Plan specific to the planned works to ensure that there are procedures in place to respond and manage incidental releases rapidly and effectively should they occur. The Spill Response Plan would include protocols and BMPs to respond to accidental release events effectively mitigate or minimize environmental impacts. The Spill Response Plan would also detail the monitoring and reporting requirements necessary to comply with applicable BMPs, industry and NexGen standards, provincial and federal legislation, and the terms and conditions of regulatory approvals.

7.3 Hazardous Substance and Waste Dangerous Goods (BMP 004)

All bulk fuel would be stored in certified double-walled tanks that have been permitted under Approval #63804, and associated activities would be in accordance with terms and conditions of the existing approval and *The Hazardous Substances and Waste Dangerous Goods Regulations*. All other single-walled fuel storage (less than 200 L) hazardous substances and hazardous wastes would be stored in appropriate containers within secondary containment. Spill kits would be located where appropriate and at all fuel sources.

7.4 Domestic Waste Management

Potential non-hazardous waste generated during the 2022 Site Program would include food and household waste. Non-hazardous wastes include chemically or biologically inactive waste materials, which may include, but not be limited to, glass, plastic, woody debris, rubber, surplus soil, and metal wastes.

All construction waste would be effectively collected, classified, segregated, and managed for proper disposal. General BMPs/mitigation measures to be implemented for the proper storage of materials, handling, and management of wastes during the filling and flushing activities would include, but not be limited to, the following:

- All waste bins, including recycling bins, would include highly visible signage indicating acceptable bin contents.

- All waste bins would be in place prior to the start of construction works.
- All wastes would be segregated, collected, and disposed of at an approved facility.
- Worker orientation would include 'waste management' training, which would educate the workforce on the various waste streams, segregation, and recycling requirements, and re-enforce the need to handle food waste in a manner that does not result in these wastes becoming animal attractants.
- Food domestic wastes would be collected and stored in animal proof waste containers and regularly disposed of to avoid attraction by animals.
- Proof of disposal of all waste materials would be maintained in a form of manifests or other documentation deemed acceptable by NexGen.
- Wastes including, but not limited to, metal would be minimized as much as possible and would be recycled or disposed of in an environmentally acceptable manner, where possible.
- All site personnel would be trained in waste management procedures, detailing the potential impacts of poor waste management practices and the necessary procedures to be implemented.
- Every reasonable effort would be made to control the amount of material disposed of using regionally available facilities.
- Hazardous wastes would be kept separate from general waste and recyclables, ensuring that no cross-contaminations occurs.
- Regular clean up and disposal programs would be established to prevent the unnecessary accumulation of construction wastes.

7.5 Forest Clearing and Harvesting (BMP 002)

Activities during the 2022 Site Program would not necessitate the construction or clearing of new access roads. The majority of the areas associated with the 2022 Site Program are situated in areas of previous exploration activities and have been cleared and/or revegetated. Outside of the previously disturbed areas, the areas of the Property under consideration for disposition are predominantly composed of regenerating and recently burned jack pine (Pinus banksiana) stands with lichen understory.

Forest clearing operation for the 2022 Site Program would be required along portions of the access roads to improve the lines of site or to add turnout/staging area. Clearing operations would occur during the initial phase of construction. All works associated with forest clearing would not be completed until a 2022 Site Program site-wide Forest Products Permit is in place. Vegetation clearing would be limited to the extent necessary to allow the safe completion of the planned activities. Prior to forest clearing, the boundaries of the work areas associated with the 2022 Site Program would be clearly flagged in the field, and vegetation clearing would be restricted to those areas.

If clearing and grubbing works cannot avoid regional mitigatory nesting periods in a grassed or undisturbed vegetated areas, a qualified environmental professional (i.e., an avian specialist) would survey the area prior to any site clearing or grubbing activities to ensure there are no active nests. If a nest is discovered in a proposed work area, all construction activity would be halted, and the program's Environment Manager and the Construction Manger would be notified. The subject bird would be identified to determine if it is a migratory

species or species at risk. A buffer area around the nest would be determined by the Environmental Manager. Setback distances would be based on the recommended provincial and/or federal setback requirements for the bird species, level of disturbance and location. Workers and their equipment would not resume activities outside of the buffer zone until the Environment Manager notifies them that it is safe to do so.

All pre-existing roads and pads that are no longer in use would be documented and reclaimed as per BMP 012 of the Saskatchewan Mineral Exploration and Government Advisory Committee Exploration Guidelines (SMEGAC 2016).

7.5.1 Rare and Sensitive Vegetation

A desktop review of the Property area for rare or endangered plants using the Hunting, Angling and Biodiversity of Saskatchewan (HABISask) mapping application identified four provincially ranked species of concern recorded near the area. The four species previously recorded near the Property area are wetland species and consist of three S3 (vulnerable/rare to uncommon) wetland plants, including English sundew (*Drosera anglica*), Hair-like beaked-rush (*Rhynchospora capillacea*) and Horned bladderwort (*Utricularia cornuta*), and one occurrence of Heart-leaved twayblade (*Listeria cordata var. cordata*) an S2 (imperiled/very rare) provincially designated species.

Rare plant surveys conducted by both CanNorth and Omnia (CanNorth 2021a, Omnia 2021a) did not observe any of the previously listed plant species of concern identified on HABISask in the Property area. However, rare plant surveys did identify 24 provincially listed vascular plant or lichen species within the landscape surrounding the 2022 Site Program (Table 7-1). Of the 24 identified rare plant species, four were vascular plants and 20 terrestrial lichens. Of the four identified vascular plants near the Property area, two were aquatic species (Water lobelia and Lesser Duck Weed), and two were terrestrial. The two rare terrestrial vascular plant species identified included two rare sedges species (Hudson Bay Sedge and Beautiful Sedge) found growing in bogs, shrubby rich fens, and moist forest areas near the Property. The works associated with the 2022 Site Program are not expected to impact any wetlands or aquatic habitat during construction, so impacts to identified vascular species are not anticipated.

Table 7-1 Sensitive and At-Risk Plant Species Observation

Common Name	Scientific Name	SKCDC Status
Vascular		
Beautiful sedge	*Carex concinna*	S3
Hudson Bay sedge	*Carex heleonastes*	S3
Lesser duckweed	*Lemna Minor*	S1
Water lobelia	*Lobelia dortmannab*	S2
Non-Vascular Plants and Lichen		
Concentric ring lichen	*Arctoparmelia centrifuga*	S2
Iceland lichen	*Cetraria ericetorum*	S3
True Iceland lichen	*Cetraria islandica*	S3
Red-fruited pixie-cup	*Cladonia pleurota*	S2
Lesser sulphur-cup	*Cladonia deformis*	S3
Organ-pipe lichen	*Cladonia crispata*	S3
Powdered funnel lichen	*Cladonia cenotea*	S3
Boreal pixie-cup	*Cladonia borealis*	S3
Common powderhorn	*Cladonia coniocraea*	S2
British soldiers	*Cladonia cristatella*	S3

Common Name	Scientific Name	SKCDC Status
Angle-leaved sundew	*Drosera anglica*	S3
Scheuchzer Cotton-grass	*Eriophorum scheuchzeri*	S2
Crinkled snow lichen	*Cetraria nivalis*	S3
Creeping Fingerwort	*Lepidozia reptans*	S3
Lophozia liverwort	*Lophozia ventricosa*	S3
Anomalous flapwort	*Leiomylia anomala*	S3
Green starburst lichen	*Parmeliopsis ambigua*	S3
Gray starburst lichen	*Parmeliopsis hyperopta*	S3
Common freckle pelt	*Peltigera aphthosa*	S2
Yellow Map Lichen	*Rhizocarpon geographicum*	S2
SKCDC Status Definitions		
S1- Imperiled/Extremely Rare: At very high risk of extinction or extirpation due to extreme rarity, very steep declines, S2 – Imperiled/Very Rare: At high risk of extinction or extirpation due to a very restricted range, very few populations, steep declines, threats, or other factors. S3 – Vulnerable/Rare to Uncommon: At moderate risk of extinction or extirpation due to a restricted range, relatively few populations, recent and widespread declines, threats, or other factors		

Rare and endangered terrestrial lichens were the most common plant species identified during rare plant surveys. Omnia (2021a) reported that listed lichen species were most frequently found in areas of previous disturbance with sandy soil followed by jack pine – lichen (BP2) ecosites and then in regeneration – coniferous tree dominated (RF1-C) ecosites. Figure 7-1 details the approximate location of the rare species recorded during various vegetation surveys (CanNorth 2021a, Omnia 2021a).

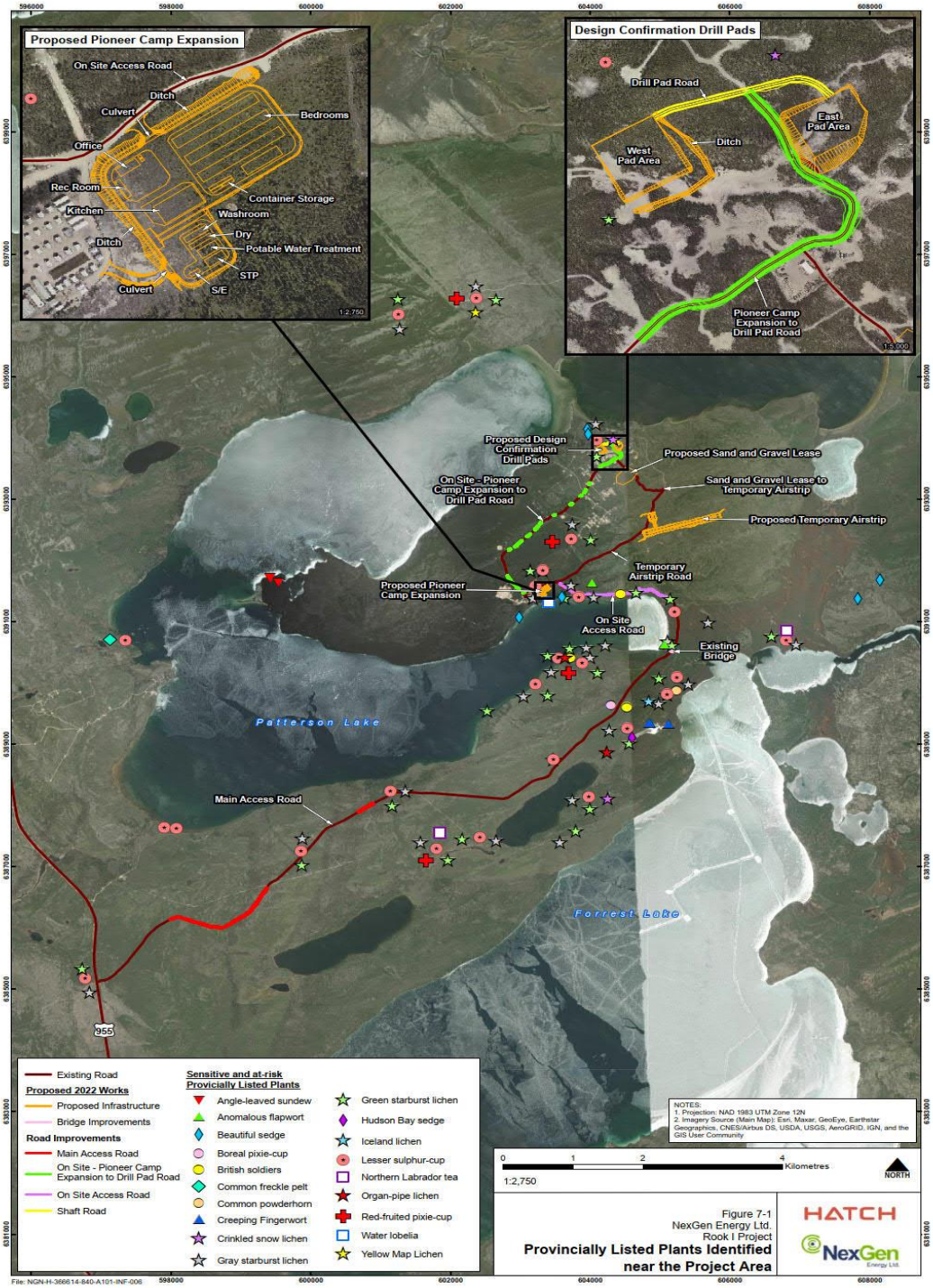

Figure 7-1 Provincially Listed At-Risk Plant Species Identified Near the Property Area

There are no provincially listed lichen species found within the footprint of the proposed 2022 Site Program works; however, there are numerous examples of provincially listed lichen near the proposed areas and access roads. To minimize potential impacts to rare and endangered plant species, NexGen would engage a rare plant specialist to conduct surveys in areas scheduled to be cleared. Rare plant species identified within 30 m of proposed site clearing activities would be flagged in the field to ensure avoidance. If proposed development areas cannot avoid impacting a listed plant species, NexGen would consult with the ENV before developing and implementing a species-specific transplantation management and monitoring program.

7.6 Temporary Work Camp (BMP 003)

NexGen employees and contractors would be housed at the Rook I temporary work camp, which is permitted under Industrial Permit #10020786 (formerly #603418). NexGen currently holds Term Water Rights License No. NW-E8-105756 Ver.2, which authorises the company to utilise water from Patterson Lake for camp operations. This Term Water Rights License will be renewed in 2022.

7.7 Fire Prevention and Control (BMP 005)

NexGen has a comprehensive fire prevention plan for the Property and will continue to submit a Wildfire Prevention and Preparedness Plan to the ENV as required by section 20 of *The Wildfire Act, 2013.* All structures, heavy equipment, and all fueling sites are/would be equipped with emergency chemical fire extinguishers. Fire extinguishers would be clearly marked, visible, and readily accessible.

Sprinkler systems have/would be installed and maintained in the Rook I camp, the core logging facilities, and the core storage area, and would be fully functional throughout the fire seasons. Multiple axes, Pulaski axes, pails, shovels, water packs, and pumps are/would be supplied at the camp site and at the core logging facilities.

7.8 Access (BMP 006)

Vehicular access to the site would be via an existing road that currently leads to the current exploration camp from Provincial Highway 955. The road is well-maintained, silt fencing is used where necessary to prevent erosion, locally sourced gravel is provided for road maintenance, and eight culverts are maintained under a Crown Land miscellaneous Use Authorization (10020786; formerly 603748).

In the event of an emergency, access to and from the Rook I camp may be obtained via boat during summer exploration programs and via helicopter year-round. In addition, the Patterson Creek Bridge would be improved as part of the 2022 Site Program, and a temporary airstrip is proposed to be constructed.

7.9 Drilling on Land (BMP 009)

All drilling operations require water to generate drilling fluids which cools the drill bits and carry the drill cuttings up and out of the drill hole. A Short-Term Water Rights Licence would be secured from the WSA prior to the commencement of the design confirmation drilling program.

The design confirmation drilling program would ensure intakes are operated in a manner that prevents streambed disturbance and fish mortality. Guidelines to determine the appropriate mesh size for intake screens may be

obtained from Fisheries and Oceans Canada (DFO), if necessary (e.g., Freshwater Intake End-of-Pipe Fish Screen Guideline (1995)). Measures would include:

- Drilling operations would ensure water and pump intakes reduce or avoid disturbance of the streambed or lakebed and are screened with a maximum mesh size of 2.54 mm and approach velocity of 0.038 m/s.
- Where pumps larger than 15 cm diameter are used, intakes would be placed in a mesh cage (2.54 mm) to reduce the approach velocity that fish are exposed to and prevent them from being impinged on the intakes.
- Screens would be maintained to keep them free of debris.

NexGen would continue to utilize drill cuttings separation systems on all drills targeting any known mineralization and any targets proximal to known mineralization to capture and properly contain any mineralized cuttings. The drilling program's water management and treatment program would follow the guidelines and BMPs established in the EMP, which would be updated to include any conditions subject to the Temporary Water Rights License, if necessary.

7.10 Drill Mud Management (BMP 009)

All drill muds and additives used on the Property would be non-toxic and biodegradable. To maintain a double-walled containment method, all mineralized cuttings would be collected using a centrifuge, bagged, and placed in a sealed drum. There are safeguards in place to avoid adverse effects on local water sources, including the use of centrifuge systems.

7.11 Core Storage (BMP 011)

Drill core would be transported to the core processing facility for analysis at the end of each drilling shift. Once processed, all drill hole core, cutting and related samples would be stored at the Core Storage Site located northwest of the Main Camp (602,809 m E, 6,391,424 m N). All core samples remaining on site would be stored in standard core boxes that would be individually labeled with a date and description of the core hole number and the interval of core secured in the box.

7.12 Water Crossing (BMP 007)

Patterson Creek, which connects Patterson Lake to Forrest Lake, is crossed by a bridge installed on the access road. An aquatic study was completed by CanNorth in 2018 and 2019 based on the watershed of the Property area. This study included waterbodies and watercourses in close proximity to the Property (i.e., Patterson Lake and adjoining creeks). Patterson Creek connects Patterson Lake to Forrest Lake and extends approximately 1 km. Patterson Creek branches into a "Y", and separates into two channels before its entry into Forrest Lake. Mean channel wetted width was between 3 m to 15 m, except for the two channels that branch off entering Forrest Lake, where the gentle slopes of the riparian zone extended the wetted width to 25 m. Mean center depth was shallow, ranging between 0.4 m and 1.2 m. Most of the creek was composed of runs, though riffles, glides, and pools also occurred.

The relatively fast flowing waters near the start of the creek and Patterson Creek Bridge have a rocky substrate with sparse or absent aquatic vegetation rendered these habitat sections most suitable for walleye (*Sander vitreus*), lake whitefish (*Coregonus clupeaformis*), longnose sucker (*Catastomus catastomus*), and white sucker

(*Catastomus commersonii*) and were also rated as providing moderately suitable spawning habitat for Arctic grayling (*Thymallus arcticus*).

The presence of wetland was noted north of the Patterson creek bridge by Omnia (2021) during their wetland and rare plant survey. In addition, Omnia (2021) has mapped the presence of a black spruce tree bog (from approximately km 10,655 to km 11,140), as well as a Labrador Tea shrubby Bog (from approximately km 11,140 to km 11,400) along the east and west sides of the main site access road. The Rook I camp can also be reached by water from a boat launch located in the southwest corner of Patterson Lake. Table 7-2 shows the locations of the water crossings.

Table 7-2 Aquatic Habitat Crossings within the Rook I Project Area

Name	Component	Easting	Northing
Black Spruce tree Bog BS18	Main Access From 10+655 to 11+140	From: 605,136	6,390,570
		To: 605,198	6,391,298
Labrador Tea shrubby Bog	Main Access From to 11+140 to 11+400	From: 605,233	6,391,035
		To: 605,198	6,391,298
Patterson Creek	Patterson Creek Bridge	605,126	6,390,559
Patterson Lake South (dock)	Dock near Highway 955	598,081	6,387,620
Patterson Lake – South Arm (Dock at Main Camp Area)	Dock at Main Camp Area	603,175	6,391,299

All temporarily disturbed areas near aquatic habitat crossings would be restored to conditions equivalent to or better than existing prior to the works. This may include implementing reclamation practices to expedite riparian vegetation regeneration, such as seeding stream banks and planting native plant species suitable for the application. All works near aquatic habitat would be conducted according to applicable industry standards and BMPs, including, but not limited to the following:

- Mineral Exploration Guidelines for Saskatchewan (MOE 2007).
- Fish Habitat Protection Guideline Road and Stream Crossing (DFO 1995).
- Measures to protect fish and fish habitat (DFO 2019).

Instream construction will either be avoided or limited to when watercourses are not flowing, or are frozen to the bottom, where possible and conducted subject to the conditions of an Aquatic Habitat Protection Permit from the ENV.

All drill muds and additives to be used on the Property would be biodegradable and non-toxic. All mineralized cuttings would be captured using a centrifuge system, bagged, and placed in a sealed drum to maintain a double-walled containment method. Measures are taken to prevent impacts to local water sources including the use of

centrifuge systems. In areas where drilling activities pose little or no risk of contamination of a water source, the drilling mud and return water would be allowed to collect in a low spot or natural depression on land.

A 2022 Site Program-specific Spill Prevention and Response Plan and Erosion and Sediment Control plan would be developed by a qualified environmental professional to ensure deleterious substances are not introduced to the environment and appropriate measures are in place to mitigate environmental effects of accidental releases. The Spill Prevention and Response Plan would also address concrete management if concrete or grouting works are required during construction.

7.13 Wildlife

The Property area's wildlife habitat and vegetation are typical of the Boreal Shield, where frequent fires have favoured jack pine dominance with a lichen understory. According to a desktop assessment and review of previous environmental assessments conducted between 2018 and 2021, the Property area is capable of supporting 243 different terrestrial wildlife species, including 197 different bird species, 41 different mammal species, four amphibian species, and one reptile species.

Wildlife surveys completed in the Property area have been comprehensive and have included baseline assessments for amphibians, birds (raptors, waterfowl and migration surveys), and mammals (including bats), and as of 2021, have documented 215 different wildlife species within 30 km of the Property area, including 120 unique species of birds, 22 species of mammals and two amphibian species (Omnia 2021).

As part of the 2022 Site Program EMP, NexGen would develop a Wildlife Management Plan that will identify an approach to ensure the protection of wildlife and wildlife habitat within the area of the proposed works. The Wildlife Management Plan would include all terrestrial, aquatic and riparian wildlife values associated with the Property area and will be developed with the objective to:

- Identify aspects of the site activities that have the potential to result in impacts to wildlife and wildlife habitat.
- Describe potential effects of the site activities on these wildlife and wildlife habitat.
- Ensure that wildlife and wildlife habitat are managed in compliance with relevant BMPs, standards and legislation as well as terms and conditions of any federal or provincial permits and authorizations.

7.13.1 Rare and Endangered Species

Species of conservation concern (SOCC) include those species listed federally by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and on Schedule 1 of the *Species at Risk Act* (SARA) (Government of Canada 2021) and provincially by the Saskatchewan Conservation Data Centre (SKCDC 2022). A desktop assessment and evaluation using the Saskatchewan Conservation Data Centre (SKCDC) revealed that 38 SOCC, including 31 species of rare or endangered birds, five mammalian species, one amphibian species, and one insect species, may be present within 30 kilometres of the Property area (Table 7-3).

Table 7-3 Species of Conservation Concern with Potential to Occur within the Property Area

Scientific Name	Common Name	Provincial Listing	COSEWIC	SARA Schedule 1
Birds				
Sterna paradisaea	Arctic Tern	S3B		
Riparia	Bank Swallow	S4B, S5M	Threatened	Threatened
Hirundo rustica	Barn Swallow	S4B	Special Concern	Threatened
Strix varia	Barred Owl	S3		
Aegolius funereus	Boreal Owl	S3	Not at Risk	
Buteo platypterus	Broad-winged Hawk	S4B, S3M		
Calidris subruficollis	Buff-breasted Sandpiper	SUM	Special Concern	Special Concern
Cardellina canadensis	Canada Warbler	S4B, S3M	Special Concern	Threatened
Hydroprogne caspia	Caspian Tern	S2B	Not at Risk	
Chordeiles minor	Common Nighthawk	S4B	Special Concern	Threatened
Numenius borealis	Eskimo Curlew	SXB	Endangered	Endangered
Aquila chrysaetos	Golden Eagle	S3B, S3N, S4M	Not at Risk	
Strix nebulosa	Great Grey Owl	S3	Not at Risk	
Zonotrichia querula	Harris's Sparrow	SUB, S5M	Special Concern	
Podiceps auritus	Horned Grebe	S5B	Special Concern	Special Concern
Limosa haemastica	Hudsonian Godwit	SUM	Threatened	
Tringa flavipes	Lesser Yellowlegs	S4B	Threatened	
Surnia ulula	Northern Hawk Owl	S3B, S5N	Not at Risk	
Lanius borealis	Northern Shrike	S1B, S4N, S4M		
Contopus cooperi	Olive-sided Flycatcher	S4B	Special Concern	Threatened
Pandion haliaetus	Osprey	S3B		
Falco peregrinus anatum	Peregrine Falcon	S1B, SNRM	Not at Risk	Special Concern
Dryocopus pileatus	Pileated Woodpecker	S3		
Pinicola enucleator	Pine Grosbeak	S2B, S4N		
Phalaropus lobatus	Red-necked Phalarope	S4B, S3M	Special Concern	Special Concern
Gavia stellata	Red-throated Loon	S1B		
Euphagus carolinus	Rusty Blackbird	S3B, SUN	Special Concern	Special Concern
Tympanuchus phasianellus	Sharp-tailed Grouse	S5		
Asio flammeus	Short-eared Owl	S3B, S2N	Threatened	Special Concern
Grus americana	Whooping Crane	SXB, S1M	Endangered	Endangered
Coturnicops noveboracensis	Yellow Rail	S3B	Special Concern	Special Concern
Mammals				
Myotis lucifugus	Little Brown Myotis	S4B, S4N	Endangered	Endangered
Myotis septentrionalis	Northern Myotis	S3	Endangered	Endangered
Lontra canadensis	River Otter	S3		
Gulo	Wolverine	S2	Special Concern	Special Concern
Rangifer tarandus caribou	Woodland Caribou	S3	Threatened	Threatened
Amphibians				
Lithobates pipiens	Northern Leopard Frog	S3	Special Concern	Special Concern
Insects				
Actias luna	Luna Moth	- S2	-	

Status Definitions

S1- Imperiled/Extremely Rare: At very high risk of extinction or extirpation due to extreme rarity, very steep declines, high threat level, or other factors.
S2 – Imperiled/Very Rare: At high risk of extinction or extirpation due to a very restricted range, very few populations, steep declines, threats, or other factors.
S3 – Vulnerable/Rare to Uncommon: At moderate risk of extinction or extirpation due to a restricted range, relatively few populations, recent and widespread declines
S4 – Apparently Secure: Uncommon but not rare; some cause for long-term concern due to declines or other factors.
B – for a migratory species, applies to the breeding population in the province
N – for a migratory species, applies to the non-breeding population in the province
M – for a migratory species, rank applies to the transient (migrant) population
U – status is uncertain in Saskatchewan because of limited or conflicting information (unrankable)

Of the listed 38 SOCC detailed in Table 7-3, a total of 17 species have been identified within the vicinity of the 2022 Site Program area (Table 7-4). Species of conservation concern identified within 30 km of the Property area include 12 species of birds, five mammalian species and one insect. Of the on-record SOCC observations, 11 species are federally listed under SARA, including Barn Swallow (*Hirundo rustica*), Canada Warbler (*Cardellina canadensis*), Common Nighthawk (*Chordeiles minor*), Lesser Yellowlegs (*Tringa flavipes*), Olive-sided flycatcher (*Contopus cooperi*), Peregrine Falcon (*Falco peregrinus*), Rusty Blackbird (*Euphagus carolinus*), Woodland Caribou (*Rangifer tarandus caribou*), Little Brown Myotis (*Myotis lucifugus*) and Northern Myotis (*Myotis septentrionalis*).

Table 7-4 Listed Species Observed Near the 2022 Site Program Area

Scientific Name	Common Name	Habitat
Birds		
Hirundo rustica	Barn Swallow	Nests almost exclusively on human-made structures such as barns, houses, or bridges, with a sheltering overhang and nearby open areas for foraging (Rodewald, 2018).
Cardellina canadensis	Canada Warbler	Nest near the ground within areas of dense shrubs, ferns, or rhododendrons. The nesting spot is often in a small depression made by an upturned tree root, a rotting stump, or a clump of moss (Rodewald, 2018).
Chordeiles minor	Common Nighthawk	Nests in a wide variety of open habitats including dunes, beached, burns, logged areas, rocky outcrops, clearings, grasslands, and open forests (Rodewald, 2018).
Strix nebulosa	Great Grey Owl	Great Gray Owls don't build nests. Instead, they use old raptor or Common Raven nests, often choosing a nest site near an opening in the forest, such as a meadow, bog, or field (Rodewald, 2018).
Tringa flavipes	Lesser Yellowlegs	Nests are typically located on the ground, typically within 200 meters of a water source and next to fallen branches, logs, or underneath low shrubs.
Contopus cooperi	Olive-sided Flycatcher	Nests in montane and northern open coniferous forests, typically preferring forest edges and riparian areas (Rodewald, 2018).
Pandion haliaetus	Osprey	their habitat includes almost any expanse of shallow, fish-filled water, including rivers Nests are usually built on snags, treetops, or crotches between large branches and trunks, lakes, reservoirs, lagoons, swamps, and marshes (Rodewald, 2018).
Falco peregrinus	Peregrine Falcon	Peregrine Falcons in nearly any open habitat, but with a greater likelihood along barrier islands, mudflats, coastlines, lake edges, and mountain chains. Peregrines may use abandoned Common Raven, Bald Eagle, Osprey, Red-tailed Hawk, or cormorant nest (Rodewald, 2018).
Pinicola enucleator	Pine Grosbeak	Pine Grosbeaks nest in evergreen trees often near the trunk where the nest is well concealed by dense vegetation.
Gavia stellata	Red-throated Loon	Nest usually in wetlands at the edge of a shallow, small pond or on a small island in the pond. (Rodewald, 2020)
Euphagus carolinus	Rusty Blackbird	Breeds in wet forests, including areas with fens, bogs, muskeg, and beaver ponds. Winters in swamps, wet woodlands, and pond edges (Rodewald, 2018).

Scientific Name	Common Name	Habitat
Loxia leucoptera	White-winged Crossbill	nest is usually in a spruce tree, near the trunk, often on the southeastern side of the tree (Rodewald, 2018).
Mammals		
Lontra canadensis	River Otter	Dens in hollow logs, burrows, or shrubby thickets along streams, lakes, ponds, marshes, estuaries, and coasts (NatureServe, 2020).
Myotis lucifugus	Little Brown Myotis	Forages in lake and stream margins and in woodlands near water. Uses caves, hollow trees, and anthropogenic structures for roosting and raising young (NatureServe, 2018)
Myotis septentrionalis	Northern Myotis	Forages in forests, forest edges, and clearing, and occasionally over ponds. Roosts in dead or dying trees, crevices, and caves (NatureServe, 2018).
Lontra canadensis	River Otter	Dens in hollow logs, burrows, or shrubby thickets along streams, lakes, ponds, marshes, estuaries, and coasts (NatureServe, 2020).
Rangifer tarandus caribou	Woodland Caribou	Mature coniferous forests and forested peatlands rich in lichens (NatureServe, 2018).
Invertebrates		
Actias luna	Luna Moth	Mixed wood and hardwood forests, usually containing its preferred host, white birch (Betula papyrifera) (UofA, 2018).

Prior to conducting site clearing activities, pre-construction habitat surveys focused on listed SARA and provincial listed species would be conducted by a wildlife biologist. If clearing and grubbing must be done within the migratory bird breeding season, then pre-clearing nest surveys would be conducted within the 2022 Site Program boundary area so that species- and site-specific protective buffers can be established around active migratory bird nests until the young have fledged in late summer (or the nest has been otherwise abandoned). Should active nests or habitat features be discovered at any proposed Property area prior to site clearing operations, construction and work activities associated with the 2022 Site Program may be delayed so that impacts to the identified species or habitat feature are minimized.

7.13.2 Caribou Management

In 2002, boreal woodland caribou were listed as "threatened" under the SARA. Given the location of the Property within the SK2 West Caribou range, a caribou sighting plan has been implemented. If caribou are spotted at or proximal to the Rook I camp, during travel or near temporary construction sites, it would be reported to the Rook I main office and recorded, and construction activities may be paused until such time as the caribou has moved out of sight from the active work area. Any sightings of caribou would be reported to the Rook I main office and recorded and would be reported as soon as reasonably possible to the SKCDC. All sightings would be reported to the ENV in the closure report for the 2022 Site Program. If multiple sightings occur over a short period of time, NexGen may contact the ENV, particularly if the sightings coincide with sensitive time periods for caribou, such as late winter and during calving and post-calving seasons.

7.14 Heritage Resources

Due to the Property being located near the shores of Patterson Lake, the Heritage Conservation Branch (HCB) determined there was a moderate to high potential of heritage resources. Archaeological sites (both recorded and unrecorded) on Crown and private lands are protected under the *Heritage Property Act* and must not be altered

or damaged without an Archaeological Resource Investigation Permit. A Heritage Resource Impact Assessment (HRIA) was completed in June 2018 under HRIA Permit No 18-068. The Assessment concluded that no new heritage resources were identified within the Property area and that development could proceed (CanNorth 2018).

7.15 Restoration/ Reclamation (BMP 012)

NexGen has a responsibility to decommission, clean up and reclaim all areas of the Rook I site that are no longer required at the cessation of activities. NexGen would do so in the manner prescribed by the appropriate regulatory authority.

NexGen's reclamation objective is to reclaim lands impacted by exploration activities that are no longer in use to a self-sustaining, locally common boreal forest vegetative community integrated with the surrounding area. Reclamation activities are progressive during activities, resulting in succession of vegetation community development stages. Final reclamation activities would continue after operations on the Property have concluded and facilities have been decommissioned, and continue until all disturbances have been reclaimed.

8. First Nation and Métis Community Engagement (BMP 013)

NexGen has a long, robust, and successful history of engaging Indigenous Groups and the public of the region, with a particular focus on the leadership and members of:

- The Clearwater River Dene Nation (CRDN).
- Métis Nation – Saskatchewan (MN-S) Northern Region 2 (NR2), including the provincial MN-S government working on behalf of the MN-S NR2 and Locals.
- The Birch Narrows Dene Nation (BNDN).
- The Buffalo River Dene Nation (BRDN).
- The Northern Village of La Loche,
- The Northern Village of Buffalo Narrows.

NexGen's engagement principles align with the Company's vision and values, and the following principles are employed to maximize the benefits of engagement opportunities for all parties:

- **Respect:** Indigenous Groups' and stakeholders' differing opinions and perspectives are listened to, understood, acknowledged, considered, and to the extent possible, incorporated into the proposed activities.
- **Inclusive:** Indigenous Groups and stakeholders, including vulnerable and distinct groups and community members, are provided with adequate opportunities to connect with NexGen.
- **Meaningfulness:** Participants are provided with accurate, timely, and relevant information to enable informed discussions.
- **Informative:** Information is provided in a format that allows Indigenous Groups and stakeholders to build an understanding of the activities to enable meaningful engagement.

- **Responsive:** Issues and concerns raised are carefully considered and responded to in a timely and appropriate manner.
- **Transparent:** Engagement activities are open, honest, and fair.

This engagement has and will continue to be undertaken in a manner that ensures that the Indigenous Groups and community members in the area are fully informed about activities of the Company in a manner that maximizes the opportunity for feedback on those activities.

Fur Block N-19

The Property is located within Fur Block N-19, and NexGen has and will continue to engage with members of the N-19 Trappers Association to ensure that they are fully informed about activities on and around the Rook I site in a manner that maximizes the opportunity for comment and/or feedback.

Local Outfitters

NexGen is aware that there are approximately eight allocated outfitters in the regional area of the Property. NexGen has and will continue to maintain communications with those outfitters that are located (or use the area) in close proximity to site activities.

Continued Engagement

NexGen is committed to continue an appropriate level of engagement on all activities related to the Project and any other activities undertaken (i.e., further exploration) in the region. This engagement has and will continue to be undertaken in a manner that ensures that the Indigenous Groups, leadership, and community members in the area are fully informed about activities of the Company in a manner that maximizes the opportunity for feedback on those activities.

NexGen has conducted, and plans to continue to conduct, early engagement on the proposed 2022 Site Program with the Indigenous communities that NexGen is currently engaging with on the Project. Early engagement has been facilitated through well-established engagement practices and NexGen will continue to engage and inform leadership about the 2022 Site Program. All engagement efforts have been and will continue to be documented and, as appropriate, shared with the ENV. A summary of the information presented to primary Indigenous Groups with respect to this application is attached in “Appendix A”.

9. Other Regulatory Requirements

Patterson Creek bridge upgrades, the existing docks, and intake infrastructure associated with the water treatment plant are within navigable waters and are considered a structure that is developed in, on, over, under, though or across any navigable water. As part of the 2022 Site Program, NexGen would be required to send a *No Interference with Navigation Notice* to Transport Canada, which would publish the Project Information on the Common Project Search (CPS). In addition to the publishing on CPS, NexGen would be responsible for publishing a publicly available notice within the vicinity of the proposed work using the same official language used in the CPS. This notice would include the location of the proposed activities and the assigned CPS Registry Number. Interested parties would be able to search the CPS to view the documents associated with the submission. Comments would be received within 30 days after the publication of the notice. NexGen would be required to

attempt to resolve any concerns within 45 days of the end of the comment period. If the concerns were not resolved within the respective time period, the commenter may, within 15 days after that time period, request that the Minister make a decision whether NexGen has to submit an application for an Approval in relation to the work.

As the Patterson Creek Bridge repairs are being conducted over fish bearing waters (i.e., Patterson Creek) and three of the proposed sonic drilling holes are within 100 m of a waterbody or watercourse, a DFO Request for Review would be requested. Additionally, to support the proposed upgrades to the water and waste water systems, an updated plumbing permit and a permit to Construct Waterworks or Sewage Works would be required to authorize the expansion of the waste water facility and construction of a potable water facility.

Additional regulatory permits required for the 2022 Site Program include a Property area-wide Aquatic Habitat Protection Permit and Forest Product Permit. A Temporary Water License to use and surface water for industrial purposes including mineral exploration, gravel washing, road and Temporary Airfield construction would be secured. Wildlife scare permits and burn permits may also be applied for, if required.

10. References

Canada North Environmental Service (CanNorth) 2018. Rook I Heritage Resource Impact Assessment. Final Report. Permit No 18-1009

Canada North Environmental Service (CanNorth) 2021a. Rook I. Rare Plant and Wetland Report

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Appendix A

Indigenous and Community Engagement Summary