NexGen EIS Review – Primary Areas of Concern
From Ya'thi Néné Lands and Resources (YNLR)

Overview:

YNLR is a not-for-profit organization established by the Black Lake Denesųłiné First Nation, Fond du Lac Denesųłiné First Nation, and Hatchet Lake Denesųłiné First Nation (collectively known as Athabasca Denesųłiné) and the municipalities of Camsell Portage, Uranium City, Stony Rapids and Wollaston Lake. YNLR has the authority to represent the communities in this EIS regulatory process. NexGen is proposing to develop an underground uranium mine at the Rook 1 project site located within Nuhenéné, the traditional territory of the Athabasca Denesųłiné (AD), near Patterson Lake.

YNLR's mission is to protect the lands and waters of Nuhenéné for the long-term benefit of its Denesųłiné First Nations and Athabasca communities, guided by their knowledge, traditions, and ambitions, while being a respected partner in relations with industries, governments, and organizations who seek to develop its resources.

Background and Critical Issue:

NexGen began engaging with communities as early as 2013. Unfortunately, discussions with the Athabasca Denesųłiné did not begin until 2019. Based on the early engagement, primary communities that were deemed most likely affected by the proposed Project were identified. Then using these identified communities as a guide, a LPA (local priority area) was established. NexGen engagement activities were focused on primary communities in the LPA. This approach has at least three flaws.

- First, it ignores or disregards the information provided by the Athabasca Denesųłiné in 2020 that clearly demonstrates their rights and interests in the vicinity of Rook 1. Clearly processes need to respond to the information available.
- Second, because the inclusion of communities in the LPA (and indeed the geographic extent of the LPA) is based on whether they were previously identified means that AD's exclusion is likely self-perpetuating. Since the Athabasca Denesųłiné were not involved in the early stages they could not possibly have been considered nor could the LPA area include them.
- Third. the proximity of our communities to the project site is downplayed in the EIS by using a road distance measure rather than the well documented cross-country routes our members generally use to access the portion of our territory near the Project. In fact, Fond du Lac is closer to the project site than several other groups considered primary! This exclusion of Athabasca Denesųłiné is erroneous and detrimental to the Athabasca Denesųłiné who are known to use the area around the proposed Project and who may be impacted by the Project.

In 2020, the Report - Provision of Athabasca Denesųłiné Traditional Knowledge, Land Use and Occupancy Information for the NexGen Rook 1 Project Environmental Assessment – was prepared by the Athabasca Denesųłiné (with financial support from NexGen). This report provided an overview of the Athabasca Denesųłiné (AD) including culture, history, Treaties, way of life and dependence on the barren-ground caribou herds and other wildlife, and Nuhenéné (AD traditional territory). Further, it provided a thematic analysis and mapping of cultural and land use activities including big game harvesting, small game and fur bearers harvesting, fish and bird harvesting, overnight sites and travel routes, traditional plants, special areas and Dene names. The later sections identify primary concerns of the Athabasca Denesųłiné, and potential impacts related to the NexGen Rook 1 Project and industrial development in general. The traditional territory of the Athabasca Denesųłiné significantly overlaps with the various VC based Local Study Areas (LSA) and Regional Study Areas (RSA). The Athabasca Denesųłiné information provided was, in our opinion, sufficient to meet the CNSC and NexGen criteria for the identification of primary Indigenous Groups. It appears that this information was not considered when developing the list of primary Indigenous Groups.

The Athabasca Denesųłiné were not deemed by NexGen to be a primary Indigenous Group and were thus not afforded the opportunity to sign a fulsome Study Agreement that allowed for participation in a joint working group aimed at supporting the inclusion of Indigenous knowledge into the EA through ongoing dialogue, for the identification, measurement, and validation, and mitigation of valued components, for the discussion of other important issues (e.g., caribou, and traditional routes into the project study area, etc.), for the creation of a community liaison position and for the ultimate development of a Benefits Agreement. The inclusion of Athabasca Denesųłiné within these activities would have allowed for a much more complete exploration of Athabasca Denesųłiné rights and interests and how they might be impacted by the Rook 1 Project and ensured that NexGen was able to better understand and appreciate the uniqueness of the Athabasca Denesųłiné. The exclusion of the Athabasca Denesųłiné from the primary Indigenous group category ensured that they were afforded less attention than other Indigenous peoples (e.g., 29 key meetings for the AD as compared to an average of 157 key meetings on average for each "primary" Indigenous group) and limits AD specific information incorporation into VCs, spatial boundaries, existing conditions descriptions, project interactions/mitigation, residual effects analysis, and monitoring, follow-up, and management. This is prejudicial and self-perpetuating.

The Athabasca Denesųłiné, having met all of the characteristics of a primary Indigenous Group and shown that their traditional territory, Treaty area, and land/resource use areas overlap with the Project, believe that they should be <u>full</u> participants in the EA process.

With this in mind, the following areas of the EIS are of the highest concern for YNLR and the Athabasca Denesųłiné́. YNLR's comments are presented below by EIS Section with the EIS text or concern identified by blue font and YNLR's comments in ***black italicized*** font.

1. Acknowledgement

In general, sources of Indigenous Knowledge were identified through methods associated with the signed individual Study Agreements (e.g., Joint Working Groups, Indigenous Knowledge and Traditional Land Use Studies) with each primary Indigenous Group and through the Study Funding Agreement with Ya'thi Néné Lands and Resources (page 24-4, EIS).

NexGen views ongoing engagement and knowledge sharing as a critical success factor for the Project; this practice would continue throughout the EIS review and into all future Project phases. As NexGen proceeds through the regulatory process and advances development of the Project, engagement activities would evolve as necessary to include Indigenous Groups and local communities in a manner that provides the opportunity for effective information exchange and dialogue specific to each stage of the Project (page 24-27, EIS).

As noted as a critical issue, YNLR and our respective communities need to be fully acknowledged within the EIS. YNLR is interested in establishing a collaborative and mutually beneficial relationship with NexGen.

2. Certainty

The Project is predicted to benefit local communities and broader society in the following ways: increased employment, increased income, increased education and training, broader economic benefits, and specific enhancement measures through Benefit Agreements (page 24-23, EIS).

Unlike the performance of past northern developments that have occurred with Nuhenéné, YNLR expects this project to deliver on the economic benefits promised to local and Indigenous people, while at the same time protecting the ecological health of the surrounding lands and waters. To this end, YNLR is interested to advance discussions related to a Benefit Agreement in order to facilitate increased certainty for the communities in Nuhenéné.

3. Project Residual and Cumulative Effects

The individual discipline sections predicted Project-specific residual effects for each VC or intermediate component as well as residual cumulative effects from the Project, other previous and existing projects and activities, and RFDs, where applicable (Table 20-3.1, pages 20-4 to 20-14).

There are a total of 24 VCs plus a number of other 'intermediate components' in the EIS, yet the residual and cumulative effects analyses are 'significant' for only one VC, the woodland caribou. While YNLR understands the important role of mitigation in reducing predicted impacts, we find this overall outcome somewhat questionable. YNLR believes that this overly optimistic conclusion results from a number of sources, ranging from a poor

selection of VCs to the largely subjective and qualitative nature of the impact assessment analyses, including the erroneous conclusions drawn for some VCs.

For example, the residual and cumulative impacts of the year-round work camps have been largely ignored in the EIS, especially with respect to the additional harvest pressure on fish and wildlife resources, both locally and regionally. This is particularly the case for the lake fish surveys in the EIS, which indicated that their populations were already too low to sustain additional harvest pressure from project workers. YNLR believes that this potential cumulative impact cannot be overlooked, and suspects there may be others.

4. Project Impacts on Woodland Caribou

The wildlife and wildlife habitat assessment concluded that effects on woodland caribou in the Base Case are already significant, as the amount of disturbance in the SK2 West is greater than the 35% threshold value as described in the federal woodland caribou recovery strategy (ECCC 2020). Therefore, any amount of incremental habitat loss from any development, including residual losses of habitat associated with the proposed Project, is considered significant for woodland caribou (page 24-22, EIS). *However, the Project is predicted to contribute little to the existing cumulative effects on woodland caribou.* (YNLR emphasis)

The situation for this important species in the region is already precarious and the Project will exacerbate this. The concluding sentence highlighted above is therefore overly optimistic and not in line with the actual effects assessment performed in the EIS, which concluded both residual and cumulative effects as 'significant' for woodland caribou. An Offset Plan for caribou has been proposed, which YNLR agrees with. However, YNLR would like to be involved with the development of this plan, and would like to see the plan largely finalized and agreed to before construction begins on the Project.

5. Project Monitoring

Monitoring has been proposed in the EIS to address uncertainties associated with the effects predictions. While the EIS has tended to minimize these uncertainties, YNLR would prefer to think that these uncertainties represent another opportunity for further collaboration between NexGen and the Denesųłiné people. Monitoring and follow-up programs are to be implemented to not only verify predicted effects, but also to evaluate the effectiveness of mitigation, and measure compliance with future permit conditions and statutory requirements. Monitoring will also be used to identify any unanticipated or unintended effects, and provide input into corrective actions or adaptive management to limit those effects (page 24-25, EIS).

While the physical footprint of the Project may be small, the nature and permanence of a uranium mine development does raise the risk level for Indigenous people. YNLR therefore expects to be fully involved with the design, implementation, and reporting of all monitoring programs for the Project, and expects such programs to be statistically robust and transparent to our communities.

NexGen EIS Review – Detailed Comments
From Ya'thi Néné Lands and Resources (YNLR)

YNLR's comments are presented below by EIS Section with the EIS text or concern identified by blue font and YNLR's comments in ***black italicized*** font. In addition, some parts of the EIS have been more or less duplicated prior to the comments for context and clarity for the reader

Section 1. Introduction (Page 1-1, EIS)

Our primary concern is the improper categorization of the YNLR as an "Other Indigenous Group" rather than a "Primary Indigenous Group".

Because the Athabasca Denesųłiné were not identified as a potential impacted group during early engagement, they were not considered in the LPA. This exclusion meant the Athabasca Denesųłiné missed out on NexGen developing "impactful community programs that focus on youth, with an emphasis on education, health and wellness, and building economic capacity" (p 1-11), and being part of NexGen processes aimed at (p 1-12, 1-13):

- Recognizing, accepting, and respecting the local communities' rights and cultural links and reliance upon the land and its resources to support current and future generations;
- Minimizing disturbances, to the extent possible and protecting the quality of the water, air, land, wildlife, and human health through all phases of the Project;
- Continued, effective, and respectful engagement with the local communities through all phases of the Project, including consideration of valuable feedback;
- Maximizing potential business and employment opportunities for local people through all phases of the Project to support current and future generations;
- Respecting the diverse cultures and perspectives of those with whom the Project interacts;
- Proactively and transparently engaging with Project -affected communities
- Enhancing workers' awareness of the history, traditions, and rights of Indigenous Peoples;
- Supporting the economic participation of local communities;
- seeking to provide opportunities resulting from a Project benefit agreement to local communities, especially opportunities with the ability to last beyond the Project lifespan;
- Providing clear and timely information to those who have a direct interest in the Project;
- Early and continuous Indigenous & public engagement on environmental protection;
- Designing and operating for responsible closure and long-term land use;
- Monitoring and adaptively managing the Project based on rigorous scientific practice and in consideration of Indigenous and Local Knowledge; and,
- Working with local Indigenous Groups to implement independent environmental monitoring.

1.2.2 Project Location and Setting

The NexGen Rook 1 Project is "*located entirely on Provincial Crown Land within Treaty 8 territory and the Métis Homeland, and adjacent to Treaty 10 territory*" (p 1-18).

For reference, there are only three First Nations in Saskatchewan that are signatories to Treaty 8. Two of these are Athabasca Denesųłiné (AD) communities: Black Lake Denesųłiné First Nation, and Fond du Lac Denesųłiné First Nation. Another of the communities represented by YNLR is Hatchet Lake Denesųłiné First Nation who is a signatory to Treaty 10, like many of the other Indigenous communities discussed within the NexGen EIS.

"*There are currently no land use plans that encompass the Project location*". (p 1-19)
This statement is questionable. The Athabasca communities approved a regional land use plan in 2008. The multiple use zone of this plan encompasses the NexGen Rook 1 project area. This information has been available to the public since 2008 prior to the beginning of NexGen's Rook 1 project. This plan is referenced on the YNLR website (www.yathinene.ca) and was available on the sites of our predecessor organizations through the Prince Albert Grand Council. This information was contained within the report - Provision of Athabasca Denesųłiné Traditional Knowledge, Land Use and Occupancy Information for the NexGen Rook 1 Project Environmental Assessment - provided to NexGen in December 2020. Lastly, we include a copy of the plan here as **Figure 1**.

1.2.2 Indigenous and Community Setting
Of particular relevance in this section of the EIS (P 1- 20, 1-21, 1-22) are:
Figures 1.2-1 Location of the Rook 1 Project
Figures 1.2-2 Regional Area of the Rook 1 Project
Figures 1.2-3 Indigenous groups and communities in the regional area of the Rook 1 Project.

Figures 1.2-1, 1.2-2, and 1.2-3 show the Athabasca Denesųłiné reserves but do not name the First Nations or show community locations. Further, the maps do not show the Athabasca Denesųłiné traditional territory. The maps should show this information. This information has been available to the public since 2008 - prior to the beginning of NexGen's Rook 1 project. Our traditional territory is referenced on the YNLR website (www.yathinene.ca) and was available on the sites of our predecessor organization's through the Prince Albert Grand Council. This information was contained within the report - Provision of Athabasca Denesųłiné Traditional Knowledge, Land Use and Occupancy Information for the NexGen Rook 1 Project Environmental Assessment - provided to NexGen in December 2020. Lastly, we include a map of the Athabasca Denesųłiné traditional territory here as **Figure 2**.

1.2.3 Indigenous and Community Setting
"Since 2013, NexGen has worked closely with the local communities and those expressing an interest in the Project to help develop meaningful relationships based on trust and respect. Prior to commencement of the EA process in 2019 through the submission of the Project Description for the Rook I Project (NexGen 2019), NexGen regularly engaged with local Indigenous Groups and communities on proposed exploration activities and early Project development aspects." (p 1-24)".

Unfortunately, NexGen did not seek to involve Athabasca Denesųłiné until May 2019. In 2020, the Report - Provision of Athabasca Denesųłiné Traditional Knowledge, Land Use and Occupancy Information for the NexGen Rook 1 Project Environmental Assessment – was prepared by the Athabasca Denesųłiné with financial support from NexGen. This report provided an overview of the Athabasca Denesųłiné (AD) including culture, history, Treaties, way of life and dependence on the barren-ground caribou herds and other wildlife, and Nuhenéné (AD traditional territory). Further, it provided a thematic analysis and mapping of cultural and land use activities including big game harvesting, small game and fur bearers harvesting, fish and bird harvesting, overnight sites and travel routes, traditional plants, special areas and Dene names. The later sections identify primary concerns of the Athabasca Denesųłiné, and potential impacts related to the NexGen Rook 1 Project and industrial development in general.

Figure 1. Athabasca Land Use Vision

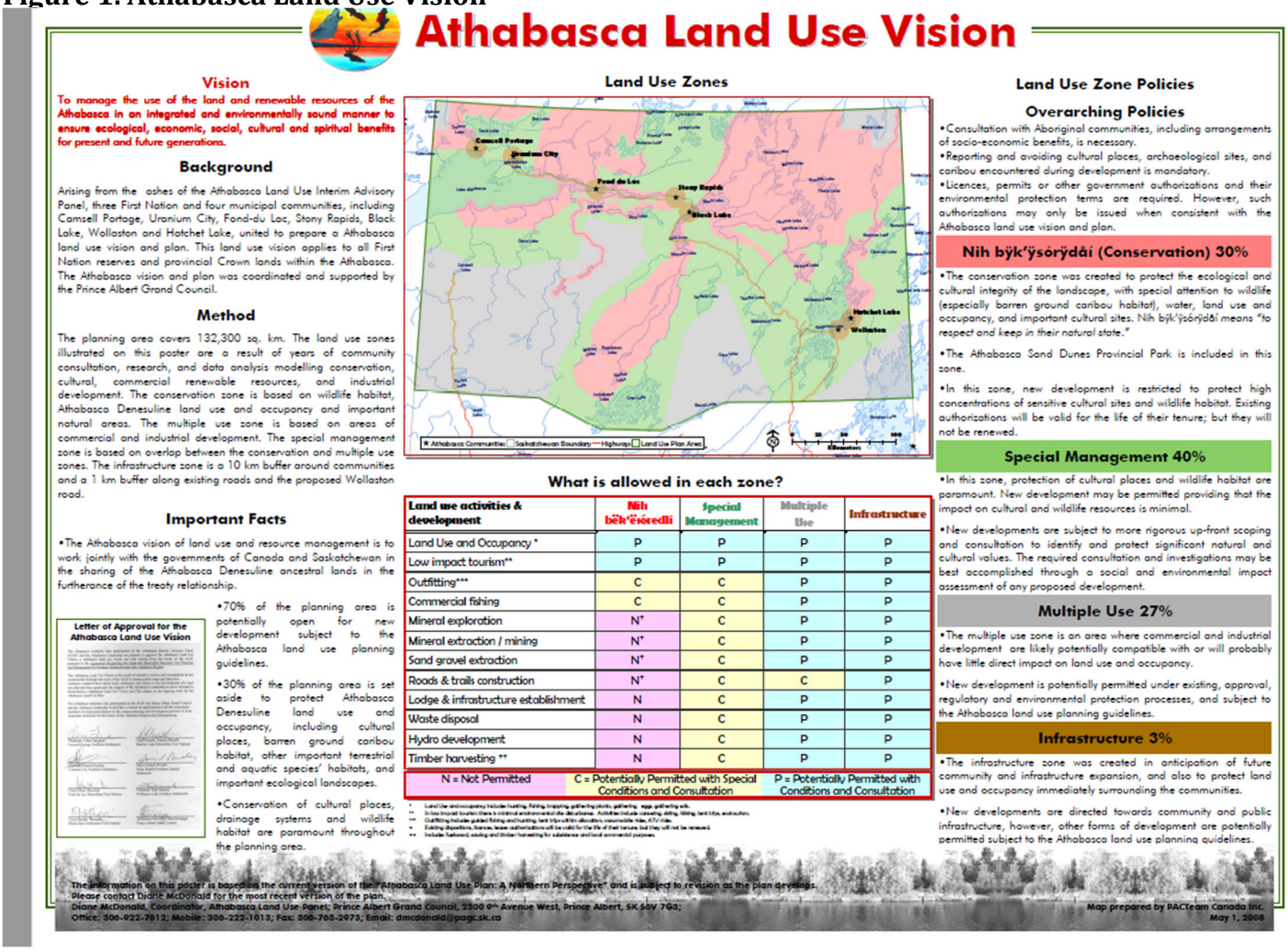


Figure 2. Athabasca Denesųłiné traditional territory (https://www.yathinene.ca/about).

"During early engagement, an Indigenous Group and stakeholder engagement identification process was undertaken to understand the individuals and groups that would most likely be affected by the proposed Project. The establishment of a local priority area (LPA) stemmed from this identification process." (p 1-24)"

The establishment of an LPA (local priority area) that followed on from the identification of the groups "that would most likely be affected by the proposed Project" <u>during early engagement</u> has two flaws. First, it ignores or disregards the information provided by the Athabasca Denesųłiné in 2020 that clearly demonstrates their interests in the vicinity of Rook 1. Second, because the inclusion of communities in the LPA is based on whether or not they had been previously identified in early stages, means that AD's exclusion is likely self-perpetuating, since the Athabasca Denesųłiné were not involved in the early stages NexGen indicates commenced in 2013.

The EIS notes that LPA communities are those *"located along or accessed by Highways 155 and 955 north of the intersection of Highways 155 and 925"* (p 1-24)

The LPA (first shown on a map in Section 3, p 3-2) emphasizes the area to the south of the Project area along the highway, with much less emphasis to the north of the Project location. Road access is not a good surrogate for a community or its people to be 'most likely affected'. The Athabasca Denesųłiné generally access their traditional territory in the vicinity of the Rook 1 Project by means other than road. Figure 3 illustrates that traditional use that occurs in the Athabasca Denesųłiné traditional territory near the Project regardless of roads. Figure 4 enlarges the area adjacent to ROOK 1 to better show ADKLUO. A version of this map was provided to NexGen in our December 2020, ADKLUO study report. Note that the Local Priority Area (LPA) is introduced in EIS Section 1 but first shown on a map in Section 3, Figure 3.1-1 Indigenous Land and Resource Use LSA and RSA shown here are introduced in Section 16 Figure 16.2-1).

The EIS specifies that all *"LPA communities are within the Métis Nation – Saskatchewan (MN-S) Northern Region 2"* (p 1-24).

The outline of the Métis Nation – Saskatchewan Northern Region 2 is found on each map throughout the EIS titled "Location of the Rook I Project". The Athabasca Denesųłiné Traditional territory overlaps the Métis Nation – Saskatchewan (MN-S) Northern Region 2 area by nearly 60% (Figure 5). The Athabasca Denesųłiné Traditional territory (see previous Figure 1) should also have been included on all reference maps. Its exclusion means that the Athabasca Denesųłiné Traditional territory is given no significance and is therefore not known or properly considered by those involved with the Project.

Identification of "Potentially affected or interested Indigenous Groups and communities was informed through":
Direct correspondence and discussion with Indigenous leaders, community members, and other organizations in the region
Review of publicly available information
Guidance provided by provincial and federal regulatory agencies
(p 1-24)

It appears that the Athabasca Denesųłiné were not considered to be potentially interested or affected. This seems at odds with publicly available information and the project-specific materials provided to NexGen by the Athabasca Denesųłiné since 2019.

Figure 3. Traditional use occurs in the Athabasca Denesųłiné traditional territory regardless of roads.

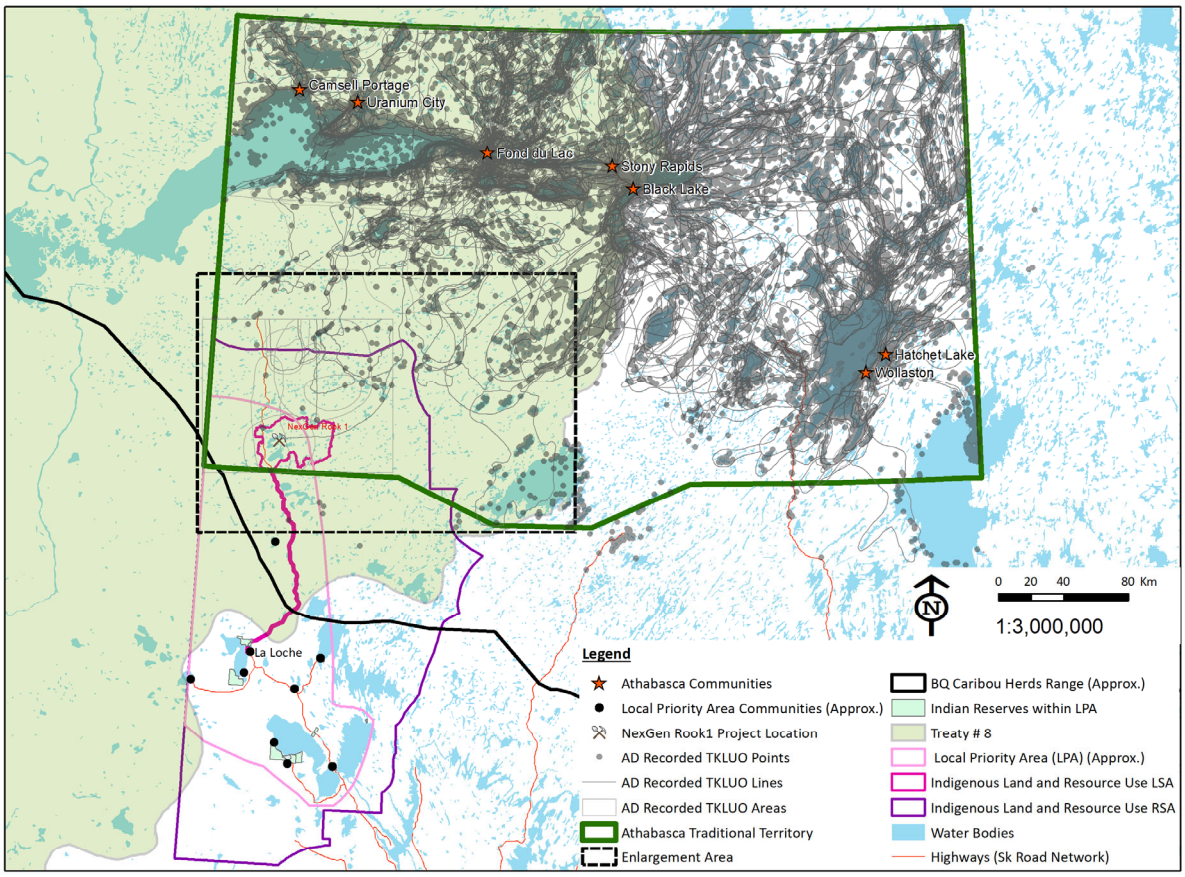


Figure 4. Athabasca Denesųłiné traditional territory and traditional use adjacent to ROOK 1.

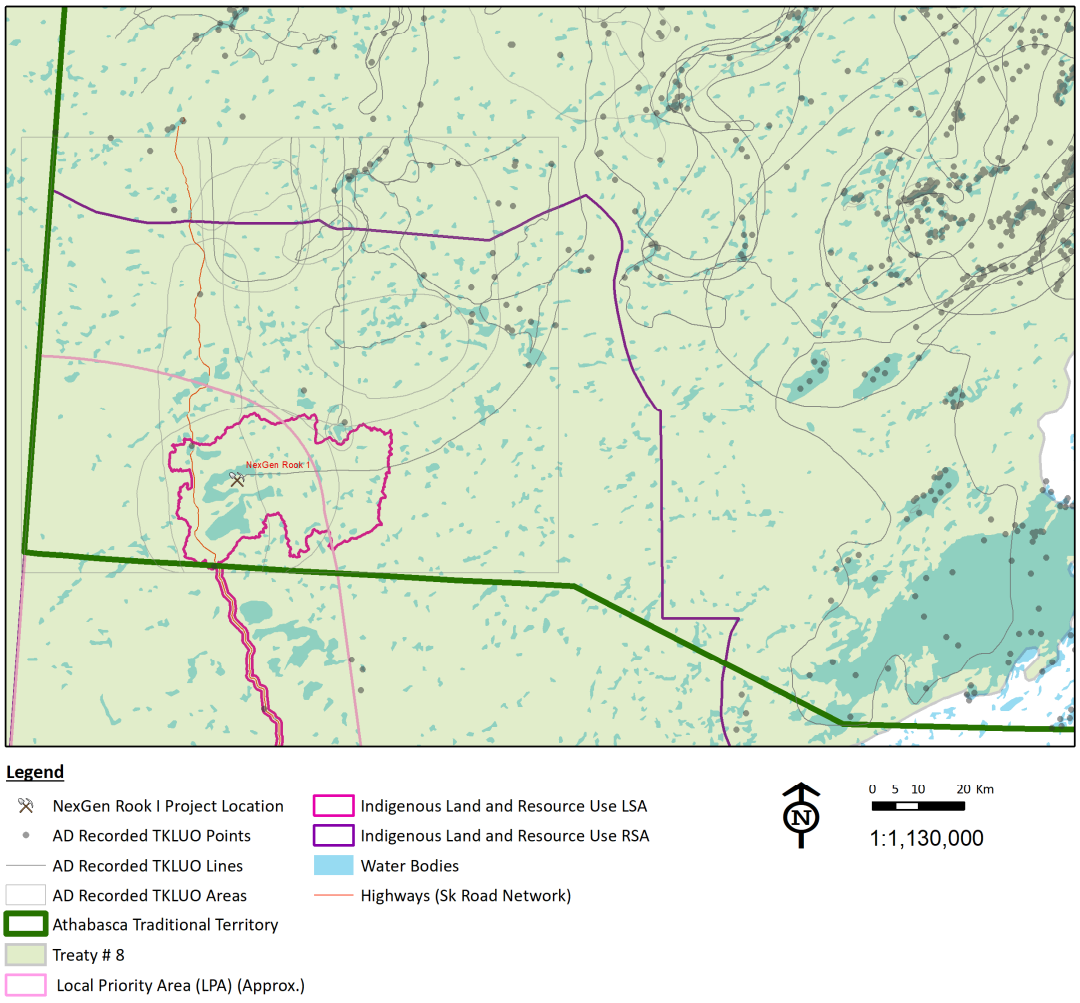
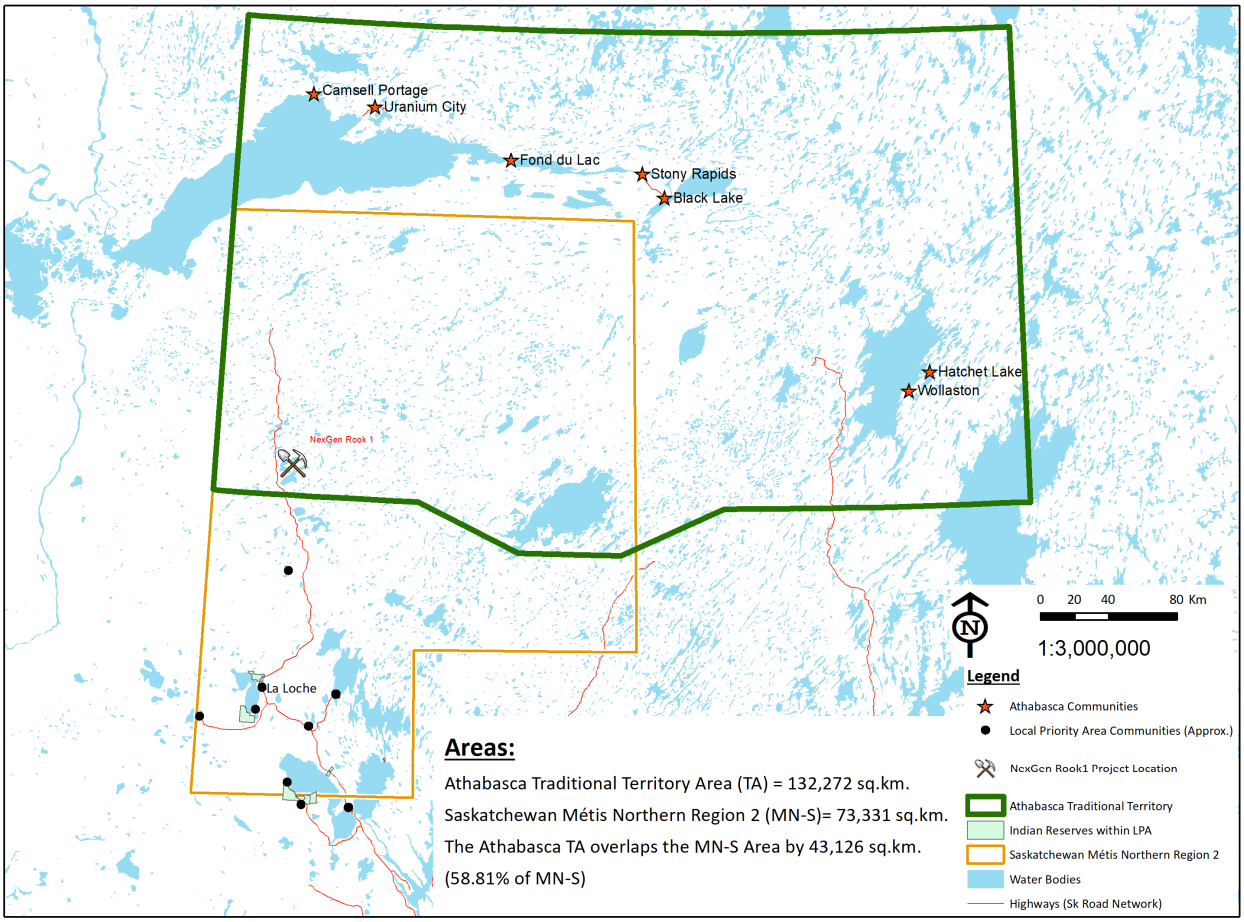


Figure 5. Overlap of Athabasca Denesųłiné Traditional Territory with Métis Nation – Saskatchewan (MN-S) Northern Region 2 (58.8% overlap)



The EIS states NexGen used CNSC REGDOC-3.2.2 Version 1.1, Indigenous Engagement (2019) when identifying Indigenous Groups for Engagement (p 1-25).

The key factors for determining the inclusion of an Indigenous Group as per the CNSC guidelines and the NexGen Rook 1 EIS (p 1-24, 1-25) are noted below, ***and key Athabasca Denesųłiné considerations follow.***

Historical and modern treaties in the region of the regulated facility

Key AD Considerations: The Rook 1 project is situated in Treaty 8 near the boundary of Treaty 10. There are only three First Nations in Saskatchewan that are signatories to Treaty 8: Two of these are Athabasca (AD) communities: Black Lake Denesųłiné First Nation, Fond du Lac Denesųłiné First Nation. Another of the communities represented by YNLR is Hatchet Lake Denesųłiné First Nation who is a signatory to Treaty 10 like many of the other Indigenous communities discussed in the NexGen EIS.

Potential impacts to the health and safety of the public, the environment and any potential or established Indigenous and/or treaty rights and related interests

Key AD Considerations: The Athabasca Denesųłiné has a long-established traditional territory and Treaty rights in the project area. Further there is documented Athabasca

Denesųłiné knowledge, land use, and occupancy in the project area. It is reasonable to conclude that the Athabasca Denesųłiné could be impacted.

Proximity of the regulated facility to Indigenous communities

Key AD Considerations: The Athabasca Denesųłiné has a long-established and documented traditional territory overlapping the area of the regulated facility. Further, our Treaty 8 Communities are180km and 260 km from the proposed Project. Generally, the area is not accessed via road. Travel to this part of our traditional territory is cross-country.

Existing relationships between Indigenous groups and licensees or the CNSC

Key AD Considerations: The Athabasca Denesųłiné have a well-established relationship with the CNSC. We have been developing a relationship with NexGen since 2019. Both should be aware of our Treaty and Traditional Territory.

Settled or ongoing litigation related to a potentially impacted group

Key AD Considerations: There is no on-going or settled litigation involving the Athabasca Denesųłiné in the project area. We believe that this is a positive condition.

Membership in a broader Indigenous collective or tribal council or Indigenous umbrella group

Key AD Considerations: YNLR is a not-for-profit organization established by the Black Lake Denesųłiné First Nation, Fond du Lac Denesųłiné First Nation, and Hatchet Lake Denesųłiné First Nation (collectively known as Athabasca Denesųłiné) and the municipalities of Camsell Portage, Uranium City, Stony Rapids and Wollaston Lake. YNLR has the authority to represent the communities in this EIS regulatory process. The three First Nations are also members of the Prince Albert Grand Council.

It is unknown what specific guidance was provided by provincial and federal regulatory agencies to NexGen with regards to identifying primary Indigenous Groups, but a comparison situation with the stated identification criteria clearly shows that we should be considered a primary Indigenous group. The key Athabasca Denesųłiné considerations should have been well known by both NexGen and CNSC given materials provided and discussions undertaken. This is further elaborated below.

The following table from the EIS (P 1-26, 1-27) describes NexGen's rationale for the categorization of Athabasca Denesųłiné communities (Black Lake and Fond du Lac) as "Other Indigenous Groups". The highlighting has been added by AD.

Table 1.2-2: Other Indigenous Groups Identified in Relation to Rook I Project Engagement

Indigenous Group	Location	Rationale
Athabasca Chipewyan First Nation	Located in Alberta, approximately 130 km from the Project to the reserve boundary, or 620 km by road, including portion on a winter road; approximately 1,350 km by all-season road.	▪ Treaty 8 signatory ▪ Previous engagement with the CNSC on the Cluff Lake Project ▪ Potential overlap with traditional territory but no access link or known residency/land use
Black Lake Denesųłiné First Nation[a]	Populated reserve located on Black Lake, approximately 260 km from the Project to the reserve boundary, or 1,230 km by road, a portion of which is a winter road.	▪ Treaty 8 signatory ▪ Previous engagement with the CNSC on uranium mining/milling projects in Saskatchewan
Fond du Lac Denesųłiné First Nation[a]	Populated reserve located on Lake Athabasca, approximately 180 km from the Project to the reserve boundary, or 1,335 km by road, a portion of which is a winter road.	▪ Treaty 8 signatory ▪ Previous engagement with the CNSC on uranium mining/milling projects in Saskatchewan

a) Fond du Lac Denesųłiné First Nation and the Black Lake Denesųłiné First Nation, as represented by YNLR.
CNSC = Canadian Nuclear Safety Commission; YNLR = Ya'thi Néné Lands and Resources.

Comparing the information in EIS Table 1.2-2 with the identification criteria discussed above, several gaps are immediately evident. The overlap of the Athabasca Denesųłiné traditional territory with the project area is missing. The documented traditional use in the vicinity of the project is missing. The proximity of our communities to the project site are downplayed by using a road distance measure rather than the well documented cross-country routes our members generally use to access this portion of our territory. In fact, Fond du Lac is closer to the project site than a number of other groups considered primary.

"NexGen confirmed the designation of primary Indigenous Groups for the EA process through the signing of Study Agreements in 2019." (p 1-27) These confidential Agreements included commitments to:

- Develop a Joint Working Group structure for each Indigenous Group to support the inclusion of Indigenous Knowledge into the EA process and to facilitate regular, ongoing engagement
- Assist in the identification of valued components (VCs) for the EA
- Explore special interest topics for each Indigenous Group
- Support Indigenous Knowledge and Traditional Land Use (IKTLU) Studies in various forms particular to each Indigenous Group
- Establish a community Coordinator position in Each Indigenous Group to act as the primary contact between NexGen and the Indigenous Group

"Each study Agreement formalized an engagement process between NexGen and individual Indigenous Groups to, among other things, identify and characterize potential effects on Indigenous rights and socio-economic interests resulting from the project, ….." (p 1-27)

Additionally, the Study Agreements commit NexGen to negotiate in good faith to formalize a Benefit Agreement and NG to provide funding to assist in negotiating such an agreement. (p 1-28).

The Athabasca Denesųłiné were not deemed by NexGen to be a primary Indigenous Group and were thus not afforded the opportunity to sign a fulsome Study Agreement that allowed for participation in a joint working group aimed at supporting the inclusion of Indigenous knowledge into the EA through ongoing dialogue, for the identification of valued components, for the discussion of other important issues (e.g., caribou, and traditional routes into the project study area, etc.), for the creation of a community liaison position and for the ultimate development of Benefits Agreement. The inclusion of Athabasca Denesųłiné within these activities would have allowed for a much more complete exploration of Athabasca Denesųłiné rights and interests and how they might be impacted by the Rook 1 Project and ensured that NexGen was able to better understand and appreciate the uniqueness of the Athabasca Denesųłiné. The exclusion of the Athabasca Denesųłiné from the primary Indigenous group category ensured that they were afforded less attention than other Indigenous peoples. This is prejudicial and self-perpetuating.

NexGen reports in the EIS that a limited Study Funding Agreement was signed with YNLR that was strictly for an IKTLU Study. (P 1-28).

In 2020, the Report - Provision of Athabasca Denesųłiné Traditional Knowledge, Land Use and Occupancy Information for the NexGen Rook 1 Project Environmental Assessment – was prepared by the Athabasca Denesųłiné with financial support from NexGen. This report provided an overview of the Athabasca Denesųłiné (AD) including culture, history, Treaties, way of life and dependence on the barren-ground caribou herds and other wildlife, and Nuhenéné (AD traditional territory). Further, it provided a thematic analysis and mapping of cultural and land use activities including big game harvesting, small game and fur bearers harvesting, fish and bird harvesting, overnight sites and travel routes, traditional plants, special areas and Dene names. The later sections identify primary concerns of the Athabasca Denesųłiné, and potential impacts related to the NexGen Rook 1 Project and industrial development in general. The Athabasca Denesųłiné information provided was, in our opinion, sufficient to positively address each of the CNSC and NexGen criteria for the identification of primary Indigenous Groups. It appears that this information was not considered when developing the list of primary Indigenous Groups and thus Athabasca Denesųłiné were excluded with all of the ramifications discussed above.

The EIS notes that information from the IKTLU shows that Indigenous Groups use the area near the Project for hunting, fishing, trapping, gathering and other activities. (p 1-28).

We find it ironic that our traditional use of the project area as demonstrated in our ADKLUO study appears to be recognized by the Proponent, but this has not led to a greater and more appropriate consideration with the EA process.

1.3.2 Assessment of Impacts on Indigenous Rights

This section describes that the Crown's duty to consult and accommodate prior to making decisions that may adversely impact established or claimed Aboriginal or Treaty rights protected by the Constitution remains despite the undertakings of NexGen. It is recognized that

results from this EA process may inform the Crown's consultation process. Further, the EIS notes that Benefit Agreements reached between NexGen and Indigenous Peoples is indicative of Indigenous group support and consent for the Project. (p 1-43)

The Athabasca Denesųłiné remind all parties that the consideration of the impacts of the NexGen project on our rights and interests is incomplete as discussed herein.

Sustainability is embedded in all of NexGen's business and operational decisions, and has been since the company's inception. NexGen is maximizing value to all stakeholders in a way that makes a lasting positive impact environmentally, socially, and economically. This is achieved through responsible development that is underpinned by effort and dedication towards environmental protection, cultural respect, health and wellness, education, careers, and training and economic capacity building (Page 1-4, EIS).

Transparent discussion and meaningful collaboration are at the core of NexGen's approach to Indigenous, regulatory, and public engagement. Encouraging progressive, broader thinking balanced with technical competence and a deep and abiding respect for the local Indigenous Peoples' and communities' understanding of the local area, site specifics, and industry best practice, is key in this approach (Page 1-11, EIS.)

Recognizing the importance of Indigenous Group and community input, NexGen continually considers and strives to acknowledge and incorporate key community feedback in the design and development of the proposed Project. Key themes NexGen has heard and addressed include (Page 1-12, EIS):

Recognizing, accepting, and respecting the local community's rights and cultural links to and reliance upon the land and its resources to support current and future generations
Minimizing disturbances, to the extent possible, and protecting the quality of the water, air, land, wildlife, and human health through all phases of the Project
Continued, effective, and respectful engagement with the local communities through all phases of the Project, including consideration of valuable feedback
Maximizing potential business and employment opportunities for local people through all phases of the Project to support current and future generations

YNLR identifies with this company philosophy and approach, which mirrors its own for the sustainable development of northern resources that provides long-lasting benefits for its aboriginal people. As such, YNLR expects to be closely engaged by NexGen as the Project unfolds.

NexGen is dedicated to minimizing potential effects on the environment throughout all phases of the Project, incorporating proven best practices and designs around mine planning, tailings, and mine rock management, and reducing the operational footprint. NexGen delivers innovative solutions to complement proven technologies while recognizing and valuing the importance of protecting and preserving the environment throughout the Project lifespan and beyond (Page 1-13, EIS).

Following meaningful engagement with YNLR community members, YNLR places the protection and conservation of the natural environment as a very high priority. The local people will still be living in the area long after the uranium ore has been mined out. The quality of their lives, and the lives of their descendants should not be impacted by any social, economic, or environmental damage that could result from the Project.

Knowledge of community values, commitment to high standards, and understanding of lessons learned from other mining operations complement NexGen's life cycle engagement for the Project that is early, often, lasting, and transparent (Page 1-14, EIS).

Identification, presentation, and due consideration of local Indigenous Groups' input through the early and ongoing engagement processes has validated, informed, and influenced aspects of Project design. These aspects include the deposition of all tailings underground, minimization of the total site disturbance footprint, optimization of water management strategies and infrastructure, and commitment to fund and support independent Indigenous Monitors chosen by each primary Indigenous Group for opportunities to participate in environmental monitoring programs for the Project through all phases (Page 1-14, EIS).

YNLR concurs with these statements. Too many mining projects ignore the context and lessons from the past, and indigenous people are rarely involved with such aspects as project monitoring.

Some key aspects of the Project design that reflect NexGen's commitment to protecting the environment and the safety of workers and the public include (Page 1-31, EIS:

Deposition of tailings underground (i.e., the UGTMF), as opposed to on or near surface, to eliminate surface infrastructure and the associated risk
Intentional consolidation and limiting of the total Project footprint as much as practical to minimize the loss of land use by Indigenous Peoples and others; minimize loss of wildlife habitat; and increase the ease and rate of progressive reclamation
Use of primarily liquid natural gas for power generation to reduce Project GHG emissions

YNLR supports these decisions that minimize the footprint and associated environmental risks of the Project.

Year-round vehicle and heavy equipment access to the proposed Project would involve upgrading the existing all-season access road from Highway 955. The access road would be used to transport equipment, materials, personnel, and supplies to and from the Project, as well as for hauling the uranium concentrate product off site.
During Construction, contractors would be transported by bus to site from La Loche until the airstrip is completed. During Operations and Closure, Project staff and contractors would be transported to and from site by aircraft (Page 1-32, EIS).

YNLR supports the planning that precludes new roads, which act to increase the direct and indirect disturbance to fish and wildlife.

Section 2: Indigenous, Regulatory, and Public Engagement

This section documents Indigenous (First Nation and Métis), regulatory, and public engagement activities for the Project in support of the Environmental Assessment (EA).

2.1 Introduction

Footnote on p 2-2 notes that "engagement efforts for the Project were specifically focused on communities local to the proposed Project". (p 2-2)

Given that engagement efforts are directed at local communities, the exclusion of the Athabasca Denesųłiné is prejudicial and ensures that our rights and interests cannot be fully considered. It is the opinion of the Athabasca Denesųłiné that we are a local community.

Figure 2.1-1. Location of the Rook 1 Project (p 2-4)

Figures 2.1-1 shows the Athabasca Denesųłiné reserves but does not name the First Nations or show community location. Further, the map does not show the Athabasca Denesųłiné traditional territory. The maps should show this information. This information has been available to the public since 2008 - prior to the beginning of NexGen's Rook 1 project. Our traditional territory is referenced on the YNLR website (www.yathinene.ca) and was available on the sites of our predecessor organisations through the Prince Albert Grand Council. This information was contained within the report - Provision of Athabasca Denesųłiné Traditional Knowledge, Land Use and Occupancy Information for the NexGen Rook 1 Project Environmental Assessment - provided to NexGen in December 2020. Lastly, we include a map of the Athabasca Denesųłiné traditional territory herein as Figure 2.

2.2.2 Community Initiatives

Initiatives noted in the EIS include (p 2-7, 2-8):
Summer student program (starting 2016), scholarships for local students (since 2017 for students in LPA), School breakfast program (since 2017), Youth sports program (since 2017), Recreational program (since 2018), Other community initiatives (since 2018), Dog adoption program (since 2015).

Athabasca Denesųłiné were not included in such programs.

2.3 Engagement Framework

The EIS notes that engagement is primarily focussed on collaboration with "directly affected (i.e., primary) Indigenous Groups for meaningful information sharing, Indigenous and Local Knowledge to be captured and appropriately considered within the EA and promotion of a life cycle planning approach by starting with the end in mind." (p 2-8, 2-9)

Further the EIS notes that YNLR is considered a stakeholder in the broader region and will be informed and presented an opportunity to provide comments and feedback. (p 2-9)

The process to identify primary Indigenous communities and the development of a Local Project Area (LPA) began in 2013. Unfortunately, NexGen did not seek to involve Athabasca Denesųłiné until May 2019. In 2020, the Report - Provision of Athabasca Denesųłiné Traditional Knowledge, Land Use and Occupancy Information for the NexGen Rook 1 Project Environmental Assessment – was prepared by the Athabasca Denesųłiné with financial support from NexGen. This report provided an overview of the Athabasca Denesųłiné (AD) including culture, history, Treaties, way of life and dependence on the barren-ground caribou herds and other wildlife, and Nuhenéné (AD traditional territory). Further, it provided a thematic analysis and mapping of cultural and land use activities including big game harvesting, small game and fur bearers harvesting, fish and bird harvesting, overnight sites and travel routes, traditional plants, special areas and Dene names. The later sections identify primary concerns of the Athabasca Denesųłiné, and potential impacts related to the NexGen Rook 1 Project and industrial development in general. The Athabasca Denesųłiné information provided was, in our opinion, sufficient to meet the CNSC and NexGen criteria for the identification of primary Indigenous Groups. It appears that this information was not considered when developing the list of primary Indigenous Groups.

As the Athabasca Denesųłiné were not deemed by NexGen to be a primary Indigenous Group and were not afforded the opportunity to sign a fulsome Study Agreement that would have allowed for participation in a joint working group aimed at supporting the inclusion of Indigenous knowledge into the EA through ongoing dialogue, for the identification of valued components, for the discussion of other important issues (e.g., caribou, and traditional routes into the project study area, etc.), for the creation of a community liaison position and for the ultimate development of Benefits Agreement. The involvement of Athabasca Denesųłiné within these activities would have allowed for a much more complete exploration of Athabasca Denesųłiné rights and interests and how they might be impacted by the Rook 1 Project and would have helped ensure that NexGen was able to better understand and appreciate the uniqueness of the Athabasca Denesųłiné. The exclusion of the Athabasca Denesųłiné from the primary Indigenous group category ensured that they were afforded less attention than other Indigenous peoples. This is prejudicial and self-perpetuating.

2.3.1 NexGen Standards

EIS page 2-10 lists key engagement objectives that are incorporated specific to the Project and approach to engagement for the EA.

Since Athabasca Denesųłiné were not considered a "primary" Indigenous group, but rather "other", the Athabasca Denesųłiné were perhaps not provided with an opportunity for meaningful engagement; full consideration of our rights, interests, traditional knowledge; and the chance to have our issues and concerns understood and responded to adequately.

2.3.2.1 Federal Regulatory Guidance

EIA states that NexGen's approach to consultation and engagement aligns with the approach outlined in these documents (p 2-13).

REGDOC-3.2.2 Version 1.1, Indigenous Engagement (CNSC 2019) (http://www.nuclearsafety.gc.ca/pubs_catalogue/uploads/REGDOC-3-2-2-Aboriginal-Engagement-version-1.1-eng.pdf)
REGDOC-3.2.1, Public Information and Disclosure (CNSC 2018)

As noted in our comments on section 1.2.3 above and section 2.4.1 below, Athabasca Denesųłiné believes that we have fully met the "key factors" for consideration as a primary Indigenous group deserving of consultation on the high end of the spectrum.

The EIS references Technical Support Document (TSD) I, Indigenous Engagement Report that was prepared and submitted with the EIS. This report provides information on Indigenous engagement activities completed up to 28 February 2022 (p 2-13)

We don't believe that we have received this report.

2.3.2.2 Provincial Regulatory

The EIS indicates that Provincial guidance is found in 3 documents (p 2-14))

1. First Nation and Métis Consultation Policy Framework (Govt of Saskatchewan)

https://pubsaskdev.blob.core.windows.net/pubsask-prod/98187/98187-Consultation_Policy_Framework.pdf

2. Proponent Handbook – Voluntary Engagement with First Nations and Métis Communities to Inform Government's Duty to Consult Process (Government of Saskatchewan)

https://pubsaskdev.blob.core.windows.net/pubsask-prod/94455/94455-Proponent_Handbook.pdf

3. Proponents Guide – Consultation with First Nations and Métis in Saskatchewan Environmental Impact Statement (Government of Saskatchewan)

http://www.environment.gov.sk.ca/eaproponentconsultationguidelines

The Athabasca Denesųłiné believe that the information provided to the Proponent including the 2020 Report - Provision of Athabasca Denesųłiné Traditional Knowledge, Land Use and Occupancy Information for the NexGen Rook 1 Project Environmental Assessment – which was prepared by the Athabasca Denesųłiné with financial support from NexGen substantially contributes to meeting the many aspects of the identified guidelines. The report provided an overview of the Athabasca Denesųłiné (AD) including culture, history, Treaties, and way of life and their dependence on the barren-ground caribou herds and other wildlife, Nuhenéné (AD traditional territory) and provided a thematic analysis and mapping of cultural and land use activities including big game harvesting, small game and fur bearers harvesting, fish and bird harvesting, overnight sites and travel routes, traditional plants, special areas and Dene names. The later sections identify primary concerns of the Athabasca Denesųłiné, and potential impacts related to the NexGen Rook 1 Project and industrial development in general. Based on this information greater consultative efforts and considerations are required.

2.4 Indigenous Group and Stakeholder Identification

The EIS states "Prior to commencement of the EA process in 2019 through the submission of the Project Description, NexGen regularly engaged with local Indigenous Groups and communities on proposed exploration activities and early Project development aspects" (p 2-14)

Further the EIS says "A key focus of the Indigenous Group …identification process was to understand [those] that would most likely be affected by the proposed Project. The establishment of an LPA stemmed from this identification process. The LPA consists of the local communities closest to the Project that would experience most of the Project effects and for which NexGen would prioritize local training, employment, and business opportunities for the Project." (p 2-14, 2-15)

NexGen began engaging with communities as early as 2013. Unfortunately, discussions with the Athabasca Denesųłiné did not begin until 2019.

Based on the early engagement (e.g., pre-2019) primary communities deemed most likely affected by the proposed Project were identified. Then using these identified communities as a guide, a LPA (local priority area) was established. NexGen engagement activities were focused on primary communities in the LPA. This approach has at least three flaws. First, it ignores or disregards the information provided by the Athabasca Denesųłiné in 2020 that clearly demonstrates their interests in the vicinity of Rook 1. Clearly processes need to respond to the information available. Second, because the inclusion of communities in the LPA (and indeed the geographic extent of the LPA) is based on whether or not they were previously identified means that AD's exclusion is likely self-perpetuating. The Athabasca Denesųłiné were not involved in the early stages so they could not possibly have been considered nor could the LPA area include them. Third, the proximity of our communities to the project site is downplayed in the EIS by using a road distance measure rather than the well documented cross-country routes our members generally use to access the portion of our territory near the Project. In fact, Fond du Lac is closer to the project site than a number of other groups considered primary!

2.4.1 Identification of Indigenous Groups for Engagement

The EIS states that the NexGen process to determine engagement requirements for Indigenous Groups included consideration of (CNSC 2019) the key points of which are outlined below (p 2-17), ***and key Athabasca Denesųłiné considerations follow:***

- Historical and modern treaties
  - ***Key AD Considerations: The Rook 1 project is situated in Treaty 8 near the boundary of Treaty 10. There are only three First Nations in Saskatchewan that are signatories to Treaty 8. Two of these are Athabasca (AD) communities: Black Lake Denesųłiné First Nation, and Fond du Lac Denesųłiné First Nation. Another of the communities represented by YNLR is Hatchet Lake Denesųłiné First Nation who is a signatory to Treaty 10 like many of the other Indigenous communities discussed in the NexGen EIS.***
- Proximity of the Project to Indigenous communities
  - ***Key AD Considerations: The Athabasca Denesųłiné has a long-established and documented traditional territory overlapping the area of the regulated facility. Further, our Treaty 8***

Communities are180 km and 260 km from the proposed Project. Generally, the area is not accessed via road. Travel to this part of our traditional territory is cross-country.

- Traditional territories
- ***Key AD Considerations: Athabasca Denesųłiné has a long-established and documented traditional territory. This information has been available to the public since 2008 - prior to the beginning of NexGen's Rook 1 project. In addition, our traditional territory has been previously discussed in other regulatory proceedings as well as in interactions with the CNSC, the Province, and industry. Further our traditional territory is referenced on the YNLR website (www.yathinene.ca) and was available on the sites of our predecessor organisations through the Prince Albert Grand Council. This information was contained within the report - Provision of Athabasca Denesųłiné Traditional Knowledge, Land Use and Occupancy Information for the NexGen Rook 1 Project Environmental Assessment - provided to NexGen in December 2020. Lastly, for reference, we include a map of the Athabasca Denesųłiné traditional territory herein as Figure 2.***
- Traditional and current land uses
- ***Key AD Considerations: In 2020, the Report - Provision of Athabasca Denesųłiné Traditional Knowledge, Land Use and Occupancy Information for the NexGen Rook 1 Project Environmental Assessment – was prepared by the Athabasca Denesųłiné with financial support from NexGen. This report provided an overview of the Athabasca Denesųłiné (AD) including culture, history, Treaties, way of life and dependence on the barren-ground caribou herds and other wildlife, and Nuhenéné (AD traditional territory). Further, it provided a thematic analysis and mapping of cultural and land use activities including big game harvesting, small game and fur bearers harvesting, fish and bird harvesting, overnight sites and travel routes, traditional plants, special areas and Dene names. The later sections identify primary concerns of the Athabasca Denesųłiné, and potential impacts related to the NexGen Rook 1 Project and industrial development in general. Additional information was provided during the few engagement sessions held with YNLR and our communities.***
- Settled or ongoing land claims and/or litigation
- ***Key AD Considerations: There is no on-going or settled litigation involving the Athabasca Denesųłiné in the project area. We believe that this is a positive condition.***
- Existing relationships between Indigenous communities and NexGen or the CNSC; and
- ***Key AD Considerations: The Athabasca Denesųłiné have a well-established relationship with the CNSC. We have been developing a relationship with NexGen since 2019. Both should be aware of our Treaty and Traditional Territory.***
- Potential Project effects on health and safety, the environment, and any potential or established Aboriginal or treaty rights and related interests of Indigenous Groups
- ***Key AD Considerations: The Athabasca Denesųłiné has a long-established traditional territory and Treaty rights in the project area. Further there is documented Athabasca Denesųłiné knowledge, land use, and occupancy in the project area. It is reasonable to conclude that the Athabasca Denesųłiné could be impacted.***

It is unknown what specific guidance was provided by provincial and federal regulatory agencies to NexGen with regards to identifying primary Indigenous Groups, but a

comparison with the stated identification criteria clearly shows that we should be considered a primary Indigenous group. The key Athabasca Denesųłiné considerations should have been well known by both NexGen, CNSC, and the Province given materials provided and discussions undertaken. This is further elaborated below.

The EIS further describes a process involving engagement requirements, the CNSC consultation spectrum, and CNSC/ENV letters to Indigenous groups that resulted in the identification of primary Indigenous groups. These groups are then listed and the rationale for their designation described in Table 2.4-3. NexGen noted that this designation was confirmed through the signing of Study Agreements in 2019. (p 2-17, 2-18, 2-19, 2-20).

Despite the information provided by the Athabasca Denesųłiné and the interest shown in the Project, they were not categorized as a primary Indigenous Group. They were relegated to the "other" Indigenous group category that ensured less interaction and interaction at the lower end of the consultation spectrum.

The following table from the EIS (Table 2.4-4, p 2-20) describes NexGen's rationale for the categorization of Athabasca Denesųłiné communities (Black Lake and Fond du Lac) as "Other Indigenous Groups".

Table 2.4-4: Other Indigenous Groups Identified in Relation to the Rook I Project

Indigenous Group	Location	Rationale
English River First Nation	Population centre located on Highway 918, approximately 130 km from the Project to the closest reserve parcel, or 465 km by road from the Project	▪ Proximity of reserve land to the Project but no access link or known residency/land use ▪ Potential overlap with traditional territory ▪ Participation in engagement related to the Cluff Lake operation
Athabasca Chipewyan First Nation	Located in Alberta, approximately 130 km from the Project to the reserve boundary, or 620 km by road, including portion on a winter road; approximately 1,350 km by all-season road	▪ Treaty 8 signatory ▪ Previous engagement with the CNSC on the Cluff Lake Project ▪ Potential overlap with traditional territory but no access link or known residency/land use
Black Lake Denesųłiné First Nation[(a)]	Populated reserve located on Black Lake, approximately 260 km from the Project to the reserve boundary, or 1,230 km by road, a portion of which is a winter road	▪ Treaty 8 signatory ▪ Previous engagement with the CNSC on uranium mining/milling projects in Saskatchewan
Fond du Lac Denesųłiné First Nation[(a)]	Populated reserve located on Lake Athabasca, approximately 180 km from the Project to the reserve boundary, or 1,335 km by road, a portion of which is a winter road	▪ Treaty 8 signatory ▪ Previous engagement with the CNSC on uranium mining/milling projects in Saskatchewan

a) Fond du Lac Denesųłiné First Nation and the Black Lake Denesųłiné First Nation, as represented by Ya'thi Néné Lands and Resources
CNSC = Canadian Nuclear Safety Commission.

Comparing the information in EIS Table 12.4-4 with the identification criteria discussed above, several gaps are immediately evident. The overlap of the Athabasca Denesųłiné traditional territory with the project area is missing. The documented traditional use in the vicinity of the project is missing. The proximity of our communities to the project site are downplayed by using a road distance measure rather than the well documented cross-country routes our members generally use to access this portion of our territory. In fact, Fond du Lac is closer to the project site than a number of other groups considered primary.

2.5 Engagement Approach

The EIS states "During early engagement activities, NexGen developed an initial understanding of the Indigenous Groups and stakeholders with a potential interest in the Project, social

context and relationships, preferred engagement processes (e.g., formal and informal communication channels), and preferred engagement methods and needs". (p 2-24).

Further, NexGen and the primary Indigenous Groups defined the specific parameters for engagement through Study Agreements (Section 2.5.2.1) (P 2-24).

As the Athabasca Denesųłiné were not included during early engagement activities, nor were we considered a primary Indigenous Group, nor are we included with in the resultant LPA, it would have been difficult for NexGen to develop an understanding of the Athabasca Denesųłiné including our rights and interests and determine preferred engagement process and techniques as well as participate in a fulsome Study Agreement. Unfortunately, the Athabasca Denesųłiné were not engaged until 2019, and then only at the low end of the consultative spectrum, but it appears that the overall EIS process had difficulties incorporating and adjusting to new information.

The EIS also states that "NexGen …sought feedback from Indigenous Groups and stakeholders regarding future items to be discussed. This feedback resulted in customized engagement such as tailored presentations to Indigenous Groups on caribou and the EA process, as well as cultural share presentations by Indigenous Groups including stories, historical documents, animal furs, crafts, and culturally significant foods." (p 2-26)

Regrettably, the Athabasca Denesųłiné were not included in these engagements. Assuredly, the Athabasca Denesųłiné communities would have welcomed the opportunity to both learn more about the EA undertakings and to share their knowledge of the land, their traditional territory and their rights and interests.

2.5.1 General Communications Methods

There were multiple means and methods of communications during Project engagement including Face-to face meetings, Noticeboards, social media, websites, radio/television, newspapers, mail-outs, community events. (p 2-27, 2-28).

Most of these methods were targeted at, and specific to communities in the LPA, and therefore the Athabasca Denesųłiné were excluded.

2.5.2 Indigenous Engagement Methods

The EIS states that "primary Indigenous Groups were invited to engage fully with NexGen, while other Indigenous Groups were initially informed of the Project by the CNSC and ENV and invited by NexGen to remain informed throughout the EA process." (p 2-29)

Further the EIS notes that "The level to which any Indigenous Group has been and will continue to be engaged is determined through a process that includes consultation between the potentially affected Indigenous Group and NexGen and can evolve as the Project progresses." (p 2-29)

Mistakenly, the Athabasca Denesųłiné were categorized as "other" Indigenous Group rather than a "primary" Indigenous Group due to the engagement process followed and

were thus relegated to an "inform" designation along the spectrum of engagement. Following the provision of detailed information in our 2020 report and in discussions with NexGen and the CNSC, it was expected that our participation would evolve to reflect our situation, rights, and interests and be moved into the primary Indigenous Group category and to move further along the spectrum of engagement. Unfortunately, any increased consultation and engagement efforts and consideration were limited.

2.5.2.1 Study Agreements

Primary Indigenous Groups entered Study Agreements that were signed in September and October of 2019 that included:

- Develop a Joint Working Group structure for each Indigenous Group to support the inclusion of Indigenous Knowledge into the EA process and to facilitate regular, ongoing engagement
- Assist in the identification of valued components (VCs) for the EA
- Explore special interest topics for each Indigenous Group
- Support Indigenous Knowledge and Traditional Land Use (IKTLU) Studies in various forms particular to each Indigenous Group
- Establish a community Coordinator position in each Indigenous Group to act as the primary contact between NexGen and the Indigenous Group

Additionally, the Study Agreements commit NexGen to negotiate in good faith to formalize a Benefit Agreement and NexGen to provide funding to assist in negotiating such an agreement

The Athabasca Denesųłiné were not deemed by NexGen to be a primary Indigenous Group and were thus not afforded the opportunity to sign a fulsome Study Agreement that allowed for participation in a joint working group aimed at supporting the inclusion of Indigenous knowledge into the EA through ongoing dialogue, for the identification of valued components, for the discussion of other important issues (e.g., caribou, and traditional routes into the project study area, etc.), for the creation of a community liaison position and for the ultimate development of Benefits Agreement. The inclusion of Athabasca Denesųłiné within these activities would have allowed for a much more complete exploration of Athabasca Denesųłiné rights and interests and how they might be impacted by the Rook 1 Project and ensured that NexGen was able to better understand and appreciate the uniqueness of the Athabasca Denesųłiné. The exclusion of the Athabasca Denesųłiné from the primary Indigenous group category ensured that they were afforded less attention than other Indigenous peoples. This is prejudicial and self-perpetuating.

NexGen notes in the EIS that a limited Study Funding Agreement was signed with YNLR that was strictly for an IKTLU Study. (p 2-30).

In 2020, the Report - Provision of Athabasca Denesųłiné Traditional Knowledge, Land Use and Occupancy Information for the NexGen Rook 1 Project Environmental Assessment – was prepared by the Athabasca Denesųłiné with financial support from NexGen. This report provided an overview of the Athabasca Denesųłiné (AD) including culture, history,

Treaties, way of life and dependence on the barren-ground caribou herds and other wildlife, and Nuhenéné (AD traditional territory). Further, it provided a thematic analysis and mapping of cultural and land use activities including big game harvesting, small game and fur bearers harvesting, fish and bird harvesting, overnight sites and travel routes, traditional plants, special areas and Dene names. The later sections identify primary concerns of the Athabasca Denesųłiné, and potential impacts related to the NexGen Rook 1 Project and industrial development in general. The Athabasca Denesųłiné information provided was, in our opinion, sufficient to positively address each of the CNSC and NexGen criteria for the identification of primary Indigenous Groups. It appears that this information was not considered when developing the list of primary Indigenous Groups and thus Athabasca Denesųłiné were excluded with all of the ramifications discussed above.

2.5.2.2 Indigenous Group Engagement Methods Summary

Primary Indigenous Groups were engaged by:
JWG meetings, meeting information presentations, engagement update letters to community Coordinators, JWG presentation summaries, JWG breakout sessions, project information packages, additional information (JWG), KP (key person) interviews, Site tours, Project Liaison Manager. The purpose of these engagements was wide-ranging. (Table 2.5-1, p 2-32, p 2-33)

YNLR as an "other Indigenous Group" was engaged by:
Meetings (with a focus on informing), and project information updates. (Table 2.5-2).

The Athabasca Denesųłiné were engaged with using far fewer methods and with a much narrower focus than primary Indigenous groups. The greater involvement of Athabasca Denesųłiné within the engagement activities would have allowed for a much more complete exploration of Athabasca Denesųłiné knowledge, land uses, rights and interests and how they might be impacted by the Rook 1 Project and ensured that NexGen was able to better understand and appreciate the uniqueness of the Athabasca Denesųłiné. The exclusion of the Athabasca Denesųłiné from the primary Indigenous group category ensured that they were afforded less attention than other Indigenous peoples. This is prejudicial and self-perpetuating.

2.5.4 Public Engagement Methods (includes LPA communities identified as primary target audience

LPA communities were engaged by:
Project information packages, Newsletters, Emails, Letters, Telephone, in-person and virtual Meetings, Surveys and questionnaires, KP (key person) interviews, Community information sessions, Site tours, Project Liaison Manager. The purpose of these engagements was wide-ranging. (see Table 2.5-4) (p 2-36, 2-37)

Regrettably, the Athabasca Denesųłiné communities were not engaged in this manner. It constituted a lost opportunity for joint learning and sharing between Athabasca Denesųłiné and NexGen.

2.5.5 Incorporation of Indigenous and Local Knowledge

The EIS states that "Indigenous and Local Knowledge for the Project was collected through the IKTLU Studies, JWGs, community information sessions, site tours with community members, other formal and informal meetings, and research conducted as part of environmental and socio-economic baseline data collection programs" … "The majority of Local Knowledge was shared through EA baseline activities or other formal or informal individual and community events, including the community information sessions held in 2019 and KP interviews" (p 2-37).

With the exception of an Athabasca Denesųłiné IKTLU study, which was impacted by the COVID pandemic, the Athabasca Denesųłiné were not included in any of the other noted knowledge sharing processes.

The greater involvement of Athabasca Denesųłiné within these engagement activities would have allowed for a much more complete exploration of Athabasca Denesųłiné knowledge, land uses, rights and interests and how they might be impacted by the Rook 1 Project and ensured that NexGen was able to better understand and appreciate the uniqueness of the Athabasca Denesųłiné. The exclusion of the Athabasca Denesųłiné from the majority of these opportunities ensures that they are afforded less attention than other Indigenous peoples. This is prejudicial and self-perpetuating.

2.6.1 Indigenous Engagement

In the EIS Table 2.6-1 (p 2-40) summarizes Key Engagement Activities (but not all communication) with the four primary Indigenous Groups. A total of 631 Key Engagement Activities are recorded.

Table 2.6-2 summarises YNLR key engagement activities, including correspondence. (p 2-40)

This means there is an average of over 157 Key Engagement Activities per primary Indigenous Group. For comparison, YNLR had only 29 key engagement activities including 20 emails/letters of correspondence, and 9 meetings (in-person/video). The greater involvement of Athabasca Denesųłiné within these engagement activities would have allowed for a much more complete exploration of Athabasca Denesųłiné knowledge, land uses, rights and interests and how they might be impacted by the Rook 1 Project and ensured that NexGen was able to better understand and appreciate the uniqueness of the Athabasca Denesųłiné. The exclusion of the Athabasca Denesųłiné from the majority of these opportunities ensured that they were afforded less attention than other Indigenous peoples. This is prejudicial and self-perpetuating.

2.6.1.1.1 Summary of Joint Working Group Activities

"Joint Working Groups were established in late 2019…as a means of early engagement and collaboration…to facilitate regular, ongoing engagement during the EA process. A Community Coordinator for each Indigenous Group acts as a liaison and helps coordinate planning…the position is funded by NexGen" (p 2-41). JWG meeting Topics are listed in Table 2.6-3 and include VCs, assessments, Caribou, IKTLU, baseline studies, Monitoring and many more. (p 2-42)

Unfortunately, the Athabasca Denesųłiné were not included in the Joint Working Groups. Athabasca Denesųłiné may have had some good information to share and would have appreciated the opportunity to learn from others.

2.6.1.1.2 Joint Working Group Breakout Sessions

The EIS notes that additional JWG breakout sessions were held (p2-44).

Unfortunately, the Athabasca Denesųłiné were not included in the Joint Working Groups and their breakout sessions. Athabasca Denesųłiné may have had some good information to share and would have appreciated the opportunity to learn from others.

2.6.1.2.1 Primary Indigenous Groups

Detailed summaries of identified topics of interest, issues, and concerns for of each Primary Indigenous Group's issues are identified in text and in tables (p 2-46, 2-47, 2-48, 2-49, 2-50, 2-51) (Tables 2.6-5, 2.6-6. 2.6-7, 2.6-8)

AD notes that more meetings and engagement result in more detail. While fewer meetings and engagement result in less detail.

2.6.1.2.2 Other Indigenous Groups

The EIS states "Through their IKTLU Study (TSD VI: YNLR), the YNLR provided topics of interest, issues and concerns. In general, the YNLR have indicated an interest in economic opportunities being provided to communities across the Athabasca Basin. General concerns outlined by YNLR included potential effects to water quality within the Athabasca Basin, noise disturbances associated with increased traffic, and the potential impacts to community members' ability to access traditional land and resource, and the ability to utilize those resources." (p 2-51)

We are pleased that there is some reference to the Athabasca Denesųłiné, but we believe the summary is incomplete. The 2020 Report - Provision of Athabasca Denesųłiné Traditional Knowledge, Land Use and Occupancy Information for the NexGen Rook 1 Project Environmental Assessment –provided an overview of Athabasca Denesųłiné (AD) culture, history, Treaties, way of life, and Nuhenéné (AD traditional territory).Further, it provided information on traditional (including contemporary) land use and knowledge, provided thematic maps of cultural and land use activities including big game harvesting, small game and fur bearers harvesting, fish and bird harvesting, overnight sites and travel routes, traditional plants, special areas, and Dene names. The report also identified primary concerns of the Athabasca Denesųłiné, and potential impacts related to the NexGen Rook 1 Project and industrial development in general that include:
1.wildlife harvest and habitat
2.water resources,
3.the continued ability to exercise Treaty and Aboriginal Rights and the protection of Athabasca Denesųłiné rights.
Any reference to economic activities in the ADKLUO report was indirect, though important. To be clear, there was no reference to the wider Athabasca Basin. Further Athabasca

Denesųłiné Treaty and Aboriginal Rights and their protection seemed to be excluded from the NexGen summary.

These issues and concerns along with others were raised during meetings between AD and NexGen and/or the CNSC.

Again, we note that more meetings and engagement mean more detail. While fewer meetings and engagement mean less detail. Clearly more engagement with primary Indigenous groups lead to a greater elaboration and understanding of their issues. Less engagement with the YNLR lead to less elaboration and less understanding and appreciation of Athabasca Denesųłiné issues.

2.6.1.3 Validation of Identified Issues

Restates that JWG meetings have been a primary means by which Indigenous Group interests and issues were identified and discussed…and that the issues were accurately understood and recorded by

- Having an open discussion when raised
- Recording meeting minutes to be reviewed
- Opportunities to revisit or review previous issues
- Published presentation summaries (p 2-51)

The Athabasca Denesųłiné were not included in this process and therefore did not have the same opportunity to further discuss their issues and interests.

2.6.3 Public Engagement

2.6.3.1 Summary of Public Engagement Activities

2.6.3.1.1 Summary of Community Information Sessions

These EIS sections detail the various public engagement and community information activities. (p 2-54, 2-55, 2-56, 2-57). While many topics were discussed, a key one was the June 2019 community information sessions where attendees were surveyed about important components (VCs) and identified most commonly water, wildlife, plants, and employment/job opportunities. Additional information was provided in Appendices.

The Athabasca Denesųłiné were not included in these activities and sessions.

2.6.3.1.2 Summary of Key Person Interview Research Program

78 Key Person (KP) interviews were conducted as part of the socio-economic baseline program. (p 2-58)

The Athabasca Denesųłiné were not included in the KP Research Program.

2.6.3.1.3 Summary of Youth Workshop

Held March 2020 in La Loche. Incorporated into the KP interview program and the EIS as applicable.
(also Women's Interviews and Trappers Workshops) (p 2-58)

The Athabasca Denesųłiné were not included in the Youth or other Workshops.

2.7 Moving Forward
2.7.1 Ongoing and Planned Engagement Activities

There is no mention of "other Indigenous Groups", Athabasca Denesųłiné, or YNLR in this section. There should be.

Appendix 2A Summary of Indigenous Group Engagement Activities
Ya'thi Néné Lands and Resources Table 2A-7 (p 44)
These materials detail NexGen's interactions/engagement with the Athabasca Denesųłiné (YNLR, Black Lake Denesųłiné First Nation, Fond du Lac First Nation).

The Athabasca Denesųłiné acknowledges that discussions have occurred concerning project descriptions and updates, roles and responsibilities of the Proponent and the CNSC, administrative issues, the ADKLUO study, possible future engagement opportunities, and others.

Appendix 2B Summary of Issues Identified by Indigenous Groups
YNLR summary in Table 2B-5 (p 20) includes 4 issues (economic opportunities, water contamination, noise, access of traditional lands and resources and the ability to use those resources).

AD reminds NexGen that our concerns and issues go further than the four identified in their summary and we urge the reader to look at comments under 2.6.1.2.2 Other Indigenous Groups.

The 2020 Report - Provision of Athabasca Denesųłiné Traditional Knowledge, Land Use and Occupancy Information for the NexGen Rook 1 Project Environmental Assessment – provided an overview of Athabasca Denesųłiné (AD) culture, history, Treaties, way of life, and Nuhenéné (AD traditional territory). Further it provided information on traditional (including contemporary) land use and knowledge in thematic maps of cultural and land use activities including big game harvesting, small game and fur bearers harvesting, fish and bird harvesting, overnight sites and travel routes, traditional plants, special areas and Dene names. The report also identified primary concerns of the Athabasca Denesųłiné, and potential impacts related to the NexGen Rook 1 Project and industrial development in general that include:

1. ***wildlife harvest and habitat***
2. ***water resources,***
3. ***the continued ability to exercise Treaty and Aboriginal Rights and the protection of Athabasca Denesųłiné rights.***

Any reference to economic activities in the ADKLUO report was indirect, though important. To be clear, there was no reference to the wider Athabasca Basin. Further Athabasca Denesųłiné Treaty and Aboriginal Rights and their protection seemed to be excluded from the NexGen summary.

Section 3: Indigenous and Local Knowledge

3.1 Introduction

The EIS notes NexGen's commitment to the "meaningful inclusion and consideration of Indigenous and Local Knowledge in the EA process, which contributes to a holistic and robust EIS for the Project. NexGen has been meeting with potentially affected or interested First Nation and Métis Groups (collectively referred to as Indigenous Groups) and local communities on the Project since 2013 (i.e., prior to exploration drilling), and is committed to fostering relationships that facilitate collaboration and respect diverse perspectives. NexGen will continue to work with Indigenous Groups to provide meaningful opportunities for Indigenous and Local Knowledge to be shared and incorporated into the EA." (p 3-1)

The Athabasca Denesųłiné are pleased with NexGen's commitments but have concerns about NexGen's approach to identifying primary and other Indigenous groups and the local priority area (LPA). The lesser level of involvement afforded to us due to our characterisation as a non-primary Indigenous Group, the modest consideration of our traditional territory, way-of-life, knowledge, land and resource use, and Treaty and Aboriginal rights is problematic. We have elaborated on these concerns in previous sections and will continue to elaborate on them within this section.

Figure 3.1-1 Project Location and Local Priority Area (p 3-2)

Figure 3.1-1 shows the reserves but does not name the First Nations or show community locations. Further, the maps do not show the Athabasca Denesųłiné traditional territory. The maps should show this information. This information has been available to the public since 2008 - prior to the beginning of NexGen's Rook 1 project. Our traditional territory is referenced on the YNLR website (www.yathinene.ca) and was available on the sites of our predecessor organisations through the Prince Albert Grand Council. This information was contained within the report - Provision of Athabasca Denesųłiné Traditional Knowledge, Land Use and Occupancy Information for the NexGen Rook 1 Project Environmental Assessment - provided to NexGen in December 2020. Lastly, we include a map of the Athabasca Denesųłiné traditional territory here as Figure 2.

3.1.1 Inclusion of Indigenous and Local Knowledge in the Environmental Assessment – General Context

Section 3.1.1 (p 2-4) of the EIS begins with the ways Indigenous Knowledge is valuable to the EA process and to decision makers, and can contribute to:

- Key issues and interests of Indigenous Groups early in the process (AD Emphasis).
- Influencing the selection of Valued Components (VCs)
- Informing study design…based on Indigenous Knowledge…including important traditional use areas or culture sites
- Past and existing environmental or social conditions, including trends over time, based on experiences and long-term observations over multiple generations, and improve the understanding of the extent of potential cumulative effects on Indigenous Peoples, their rights, and other interests
- Links between components of the environment and understanding their relationships together and with spiritual and cultural contexts

- Understanding potential effects on VCs. Especially those important to Indigenous Peoples
- Mitigation measures to avoid or minimize effects on culturally sensitive sites and traditional resources.
- More effective long-term monitoring programs including involving IK holders to observe and collect monitoring data

The Athabasca Denesųłiné agree that Indigenous Knowledge is incredibly important and a cornerstone of modern EA. That is why we lobbied for greater involvement, prepared our report "Provision of Athabasca Denesųłiné Traditional Knowledge, Land Use and Occupancy Information for the NexGen Rook 1 Project Environmental Assessment", participated in every meeting to which we were invited, and are commenting on the EIS.

NexGen began engaging with communities as early as 2013. Unfortunately, discussions with the Athabasca Denesųłiné did not begin until 2019.

Our ADKLUO report provided an overview of the Athabasca Denesųłiné (AD) including culture, history, Treaties, and way of life and their dependence on the barren-ground caribou herds and other wildlife, Nuhenéné (AD traditional territory). It further provided a thematic analysis and mapping of cultural and land use activities including big game harvesting, small game and fur bearers harvesting, fish and bird harvesting, overnight sites and travel routes, traditional plants, special areas and Dene names. The later sections identified our primary concerns and potential impacts related to the NexGen Rook 1 Project and industrial development in general.

3.2 Indigenous Groups and Local Priority Area Communities

3.2.1 Indigenous Groups

Section 3.2.1 describes one of the "formative means by which Indigenous Groups were initially identified for inclusion in the EA process…through letters of notification issued by the CNSC and the Saskatchewan Ministry of Environment inviting Indigenous Groups to participate" (p 3-5). The letters "established those groups who should be considered as primary groups for engagement based on likely Project effects, and those who should be considered as other groups for NO] engagement." The primary Indigenous Groups (Clearwater River Dene, Métis Nation, Birch Narrows Dene, Buffalo River Dene) were "actively consulted" and given opportunities to be involved and were collaborated with throughout project development. Further NexGen has explored socio-economic and history and settlement patterns with those groups (p 3-6). Athabasca Denesųłiné is to be "informed" as the project advances.

Mistakenly, the Athabasca Denesųłiné were categorized as an "other" Indigenous Group rather than a "primary" Indigenous Group due to the engagement process followed and were thus relegated to an "inform" designation along the spectrum of engagement. Following the provision of detailed information in our 2020 report and in discussions with NexGen and the CNSC, it was expected that our participation would evolve to reflect our situation, rights, and interests and be moved into the primary Indigenous Group category

and to move further along the spectrum of engagement. Unfortunately, any increased consultation and engagement efforts were limited.

As noted in our comments on 2.6.1 above, there was an average of over 157 Key Engagement Activities per primary Indigenous Group while there were only 29 key engagement activities for YNLR. Greater involvement of Athabasca Denesųłiné within these engagement activities would have allowed for a much more complete exploration of Athabasca Denesųłiné knowledge, land uses, rights and interests, and how they might be impacted by the Rook 1 Project. This would have assisted NexGen (and the Regulators) to better understand and appreciate the uniqueness of the Athabasca Denesųłiné. Our exclusion from the majority of these opportunities ensured that we were afforded less attention than other Indigenous peoples. This is prejudicial and self-perpetuating

See additional comments under 3.3.2 below.

3.2.1.5 Ya'thi Néné Lands and Resources

Section 3.2.1.5 (p 3-7) notes that the YNLR represents the Black Lake Denesųłiné First Nation, Fond du Lac Denesųłiné First Nation, and Hatchet Lake Denesųłiné First Nation (collectively known as Athabasca Denesųłiné) and the municipalities of Camsell Portage, Uranium City, Stony Rapids and Wollaston Lake in this EIS regulatory process. The EIS acknowledges the traditional territory of the Athabasca Denesųłiné, and that the First Nation's are signatory to Treat 8 and Treaty 10. Further, the EIS states that "current land use activities [of the AD] are well documented in the vicinity of the proposed Project."

Given these acknowledgements, it is difficult to understand why the Athabasca Denesųłiné were not categorized as a Primary Indigenous Group. This shortcoming is discussed throughout this document.

3.2.2 Local Priority Area Communities

Section 3.2.2 describes again the **LPA** being communities with access from the highways north of the intersection of Highway 155 and Highway 955.

NexGen began engaging with communities as early as 2013. Unfortunately, discussions with the Athabasca Denesųłiné did not begin until 2019.

Based on the early engagement (e.g., pre-2019), primary communities that were deemed most likely affected by the proposed Project were identified. Then using these identified communities as a guide, a LPA (local priority area) was established. NexGen engagement activities were focused on primary communities in the LPA. This approach has at least three flaws. First, it ignores or disregards the information provided by the Athabasca Denesųłiné in 2020 that clearly demonstrates their interests in the vicinity of Rook 1. Clearly processes need to respond to the information available. Second, because the inclusion of communities in the LPA (and indeed the geographic extent of the LPA) is based on whether or not they were previously identified means that AD's exclusion is likely self-perpetuating. Since the Athabasca Denesųłiné were not involved in the early stages they could not possibly have been considered nor could the LPA area include them. Third. the

proximity of our communities to the project site is downplayed in the EIS by using a road distance measure rather than the well documented cross-country routes our members generally use to access the portion of our territory near the Project. In fact, Fond du Lac is closer to the project site than a number of other groups considered primary!

This exclusion of Athabasca Denesųłiné is erroneous and detrimental to the Athabasca Denesųłiné who are known to use the area around the proposed Project and who may be impacted by the Project.

Figure 3.2-1 Indigenous Groups and Local Priority Area Communities in the Vicinity of the Project

Figure 3.2-1 (p 3-8) ***shows the Athabasca Denesųłiné reserves but does not show our First Nations or community locations. Further, the maps do not show the Athabasca Denesųłiné traditional territory. The maps should show this information. This information has been available to the public since 2008 - prior to the beginning of NexGen's Rook 1 project. Our traditional territory is referenced on the YNLR website (www.yathinene.ca) and was available on the sites of our predecessor organisations through the Prince Albert Grand Council. This information was contained within the report - Provision of Athabasca Denesųłiné Traditional Knowledge, Land Use and Occupancy Information for the NexGen Rook 1 Project Environmental Assessment - provided to NexGen in December 2020. Lastly, we include a map of the Athabasca Denesųłiné traditional territory herein as*** **Figure 2**.

3.3 Indigenous and Local Knowledge Framework
3.3.2 Study Agreements

Study agreements (Section 3.3.2, p 3-11) were signed in 2019 with primary Indigenous groups. The study Agreements are confidential but each agreement with Primary Indigenous Groups contained

- Develop a Joint Working Group structure for each Indigenous Group to support the inclusion of Indigenous Knowledge into the EA process and to facilitate regular, ongoing engagement
- Assist in the identification of valued components (VCs) for the EA
- Explore special interest topics for each Indigenous Group
- Support Indigenous Knowledge and Traditional Land Use (IKTLU) Studies in various forms particular to each Indigenous Group
- Establish a community Coordinator position in Each Indigenous Group to act as the primary contact between NexGen and the Indigenous Group

Additionally, the Study Agreements commit NG to negotiate in good faith to formalize a Benefit Agreement and to provide funding to assist in negotiating such an agreement

The Athabasca Denesųłiné were not deemed by NexGen to be a primary Indigenous Group and were thus not afforded the opportunity to sign a fulsome Study Agreement that allowed for participation in a joint working group aimed at supporting the inclusion of Indigenous knowledge into the EA through ongoing dialogue, for the identification of valued components, for the discussion of other important issues (e.g., caribou, and traditional routes into the project study area, etc.), for the creation of a community liaison

position and for the ultimate development of Benefits Agreement. The inclusion of Athabasca Denesųłiné within these activities would have allowed for a much more complete exploration of Athabasca Denesųłiné rights and interests and how they might be impacted by the Rook 1 Project and ensured that NexGen was able to better understand and appreciate the uniqueness of the Athabasca Denesųłiné. The exclusion of the Athabasca Denesųłiné from the primary Indigenous group category ensured that they were afforded less attention than other Indigenous peoples. This is prejudicial and self-perpetuating.

NexGen notes in the EIS that a limited Study Funding Agreement was signed with YNLR in 2020 that was strictly for an IKTLU Study. (p 3-12).

In 2020, the Report - Provision of Athabasca Denesųłiné Traditional Knowledge, Land Use and Occupancy Information for the NexGen Rook 1 Project Environmental Assessment – was prepared by the Athabasca Denesųłiné with financial support from NexGen. This report provided an overview of the Athabasca Denesųłiné (AD) including culture, history, Treaties, way of life and dependence on the barren-ground caribou herds and other wildlife, and Nuhenéné (AD traditional territory). Further, it provided a thematic analysis and mapping of cultural and land use activities including big game harvesting, small game and fur bearers harvesting, fish and bird harvesting, overnight sites and travel routes, traditional plants, special areas and Dene names. The later sections identify primary concerns of the Athabasca Denesųłiné, and potential impacts related to the NexGen Rook 1 Project and industrial development in general. The Athabasca Denesųłiné information provided was, in our opinion, sufficient to positively address each of the CNSC and NexGen criteria for the identification of primary Indigenous Groups. It appears that this information was not considered when developing the list of primary Indigenous Groups and thus Athabasca Denesųłiné were excluded with all of the ramifications discussed above.

3.3.3 Application of Indigenous Knowledge in the Environmental Assessment (p 3-12)
This EIS section (p 3-12, 3-13) discusses the application/ incorporation of Indigenous Knowledge in the EA and feedback received from Indigenous groups on this approach.

Unfortunately, most of the Indigenous Group feedback was provided via the JWGs that did not include the Athabasca Denesųłiné. For instance, seven (7) of the nine (9) comments raised were via JWGs.

3.5.1 Joint Working Groups
Section 3.5.1 (p 3-20) provides information about Joint Working Groups.

Unfortunately, the Athabasca Denesųłiné were not included in the Joint Working Groups.

3.5.2 Indigenous Knowledge and Traditional Land Use Studies
Section 3.5.2 (p 3-21) notes that YNLR prepared an Indigenous Knowledge and Traditional Land Use Study in 2020. This section further notes that some Indigenous groups, in addition to

preparing IKTLU studies, also undertook traditional foods studies and/or community led household harvest surveys.

Indeed, the YNLR prepared the 2020 Report - Provision of Athabasca Denesųłiné Traditional Knowledge, Land Use and Occupancy Information for the NexGen Rook 1 Project Environmental Assessment – was prepared by the Athabasca Denesųłiné with financial support from NexGen. This report provided an overview of the Athabasca Denesųłiné (AD) including culture, history, Treaties, way of life and dependence on the barren-ground caribou herds and other wildlife, and Nuhenéné (AD traditional territory). Further, it provided a thematic analysis and mapping of cultural and land use activities including big game harvesting, small game and fur bearers harvesting, fish and bird harvesting, overnight sites and travel routes, traditional plants, special areas and Dene names. The later sections identify primary concerns of the Athabasca Denesųłiné, and potential impacts related to the NexGen Rook 1 Project and industrial development in general.

3.5.3 Sources of Local Knowledge

Section 3.5.3(p 3-21, 3-22) mentions that Local Knowledge for environmental and socio-economic baseline programs were derived through key person (KP) interviews, and workshops. Further there was employment from local Indigenous Groups and communities, and a summer student program that hired students from the LPA communities.

YNLR communities were not included in these programs.

3.6.2 Approach and Methods

3.6.2.1 Gathering Indigenous and Local Knowledge

At JWG meetings in late 2019 and mid 2021 (3.6.2.1 p 3-24 – 3-25), NexGen presented the list of preliminary Valued Components (VCs) for fish and fish habitat, vegetation, wildlife and wildlife habitat, and social, cultural, and economic VCs, which were informed in part by input received during community information sessions. Feedback from Indigenous Groups was then used to refine the list of VCs.

The Athabasca Denesųłiné were not part of these community information sessions or the JWGs. Therefore, we were not able to effectively participate in VC selection. Continued JWG meetings with other topics also excluded the Athabasca Denesųłiné.

3.6.2.2 Incorporating Indigenous and Local Knowledge
and
3.7 Influence on Project Planning and Design
and
3.8 Influence on the Environmental Assessment

Table 3.8-1 (p 3-36 to 3-39) Incorporation of Indigenous and Local Knowledge in the EA in each discipline (Air quality, noise, Climate change, Hydrogeology, Hydrology, Surface water quality and sediment quality, Fish and fish habitat, Terrain and soils, Vegetation, Wildlife and wildlife habitat, Human health, Cultural and heritage resources and Indigenous land and resource use, Other land and resource use, Economy, Community well-being,

The EIS (p 3-26) notes that the guidance document included instructions to discipline leads to include Indigenous and Local Knowledge alongside scientific information in the relative assessment subsections by incorporating and viewing Indigenous and Local Knowledge as equally valuable, complementary, and influential information alongside Western science. Discipline leads were also instructed to limit any analysis or interpretations of the Indigenous and Local Knowledge shared, to present it as closely as possible to the original source, and to quote directly where appropriate. To guide discipline leads in considering how Indigenous and Local Knowledge influenced their respective assessments, they were asked if Indigenous and Local Knowledge:

- Confirmed or verified currently known information;
- Improved or enhanced known information;
- Contradicted current information, and if so, whether there were any perspectives shared that were critical to the Project assessment; and
- Informed methods, mitigation, analysis, or the monitoring approach/design.

The incorporation of Indigenous and Local Knowledge into each discipline assessment was reviewed by an EA coordinator with experience incorporating Indigenous and Local Knowledge into EAs for accuracy and consistency, and to determine if there was any additional information to be considered by cross-referencing Indigenous and Local Knowledge that was used in the assessments with what was available in the sources provided. This step served as an additional check that available and applicable Indigenous and Local Knowledge was captured in the appropriate way and was not misinterpreted or taken out of context.

The AD would caution that EAs need to be able to respectfully and meaningfully, incorporate Indigenous knowledge (e.g., ways of knowing) and that this is not something easily achieved. Effective incorporation needs to go beyond checks, balances, comparisons, and verifications to move towards a shared understanding. When discussing the balancing or melding of traditional knowledge with northern Canadian resource management boards, White (2020)[1] discusses that traditional knowledge is really about a way of life or ways of knowing. While resource management focuses much on the natural environment and human interactions elements of traditional knowledge, they find it difficult to deal with social, philosophical, and spiritual aspects. Key challenges include Language (and the lack of concepts and terms); inadequacy of communications methods; formal, written, and impersonal procedures; and confidentiality concerns. Perhaps the NexGen EA approach was less effective with regards to incorporation and influence of YNLR information since Athabasca Denesųłiné traditional territory and Traditional knowledge seem not to have been incorporated in a fulsome way. AD had limited or non-existant contributions to such issues as "selection of VCs, existing conditions, Project interactions and mitigation measures, residual effects analysis, monitoring programs" (p 3-27), or "VCs and intermediate components; component methods; existing conditions; scoping and pathways analysis; mitigation measures; and monitoring, follow-up, and adaptive management" (3.8

[1] White, G. 2020. Indigenous empowerment through co-management: land claims boards, wildlife management, and environmental regulation. UBC Press. Vancouver.

Influence on the Environmental Assessment p 3-34). Further, Athabasca Denesųłiné knowledge was not sought -during the EA process (Joint Working Groups, ongoing engagement, scoping, environmental assessment Figure 3.1-6 p 3-28)

Table 3.8-1 p 3-39 "The spatial boundary selected for the LSA reflects shared Indigenous and Local Knowledge regarding the specific locations of travel routes used to access trapping and other harvesting areas, including travel from routes from Highway 955, along the existing access road and east to destinations on the Clearwater and Mirror rivers."

Unfortunately, the delineation of the spatial boundary for the LSA does not appear to include inputs and information from the Athabasca Denesųłiné.

3.9 Use of Indigenous and Local Knowledge through the Project Lifespan

Section 3.9 states that "NexGen is committed to incorporating Indigenous and Local Knowledge throughout the Project lifespan. This approach has been consistent through early engagement activities (starting in 2013) and during the EA process, and will continue as more opportunities to share knowledge become available through engagement activities with Indigenous Groups and LPA communities" (3-40)

As noted throughout this document, the Athabasca Denesųłiné believe that we should have been included in the many processes undertaken for the collection and use of Indigenous Knowledge. The inclusion of Athabasca Denesųłiné within the many engagement activities noted within the EIS would have allowed for a much more complete exploration of Athabasca Denesųłiné rights and interests and how they might be impacted by the Rook 1 Project and ensured that NexGen was able to better understand and appreciate the uniqueness of the Athabasca Denesųłiné. In particular, the exclusion of the Athabasca Denesųłiné from the primary Indigenous group category ensured that they were afforded less attention than other Indigenous peoples. This is prejudicial and self-perpetuating.

Section 4. Project Alternatives (Page 4-1, EIS)

This section of the EIS outlines the alternatives assessments completed for the proposed Rook I Project, and includes the purpose of, alternatives to, and the analysis conducted to evaluate alternative means of carrying out the Project (Page 4-1, EIS)

The assessment of alternatives has been informed by NexGen's vision and values (Section 1.1.2, NexGen Vision, Values, and Approach) and input received from potentially affected First Nations and Métis Groups (collectively referred to as Indigenous Groups) (including Indigenous Knowledge), local communities, and regulatory authorities through engagement activities (Section 2, Indigenous, Regulatory, and Public Engagement, and Section 3, Indigenous and Local Knowledge) (Page 4-1, EIS).

Through planning for consistent and reliable operation of equipment and processes, design standards would promote the protection of the public, workers, and the environment in all phases of the Project. The approach to carrying out the Project would be routinely reviewed

and optimized as updates are issued by legislative and guiding bodies, additional data are collected, feedback from Indigenous Groups and the public are received, experience is gained based on site-specific operations, new technologies are introduced, and research is advanced (Pages 4-1,2, EIS).

YNLR supports the iterative and adaptive approach to improving sustainability performance of the mine over time, especially with ongoing input from indigenous people.

Reducing carbon emissions in Saskatchewan's electricity production by 2030 is a stated objective of the Government of Saskatchewan's Growth Plan, with a target of a 40% reduction in carbon emissions from 2005 levels by 2030 (Government of Saskatchewan 2020). Even if achieving this target reduction through increasing the amount of renewable electricity, 50% or more of the Saskatchewan's power would continue to come from fossil fuels, requiring additional strategies as part of the energy mix. Incorporating nuclear power into Saskatchewan's energy mix could provide up to 80% of the province's electricity through zero-emission sources, and the province is pursuing small modular reactor operation in the early to mid 2030s (Government of Saskatchewan 2020) (Page 4-4, EIS).

As previously stated, YNLR supports the efforts to reduce the release of GHGs in Saskatchewan and Canada. However, the benefits to indigenous people from such a strategy must also be maximized, notwithstanding their desire to also protect the northern environment that they are dependent on.

Key themes NexGen heard and considered in the alternatives assessments included:

Environment: minimizing disturbances to and protecting the quality of the air, water, land and wildlife, protection of Patterson Lake, and preference for alternatives with smaller footprints and thus lesser potential effects on vegetation and wildlife throughout all phases of the Project, including post-closure (Page 4-12, EIS).

YNLR supports the use of environmental sustainability as a key theme in the Project alternatives assessment.

YNLR also notes the use of the terms 'ecological integrity' and 'ecological health' throughout the EIS. However, neither term seems to be defined in the EIS, and seem to be used interchangeably. What does NexGen mean by ecological integrity and ecological health?

After evaluation of the relative advantages and disadvantages of the range of feasible alternatives, the selected alternative for primary mining method for the Project was underground mining. Key considerations included (Page 4-20, EIS):

- Technical and economic feasibility of accessing the full extent of the target ore
- Ability to minimize surface disturbance and the overall Project footprint
- Significantly reduced water management quantity and complexity for surface and groundwater flows

- Avoiding the permanent storage of tailings on surface
- Minimizing direct and indirect effects on Patterson Lake

YNLR supports the selection of underground mining as the primary mining method due to its much-reduced environmental impacts.

Aligned with the gypsum assessment summary (Table 4.5-12) and with the majority of cases in the sensitivity analysis (Table 4.5-13), the selected alternative for mine waste storage of gypsum for the Project was underground with tailings in UGTMF (Under Ground Tailings Management Facility)(Page 4-47, EIS).

YNLR also concurs with this decision and the waste rock management decision (Page 4-59, EIS) as it reduces environmental risks and impacts.

After evaluation of the relative advantages and disadvantages of the range of feasible alternatives, the selected alternative for fuel delivery method for the Project was fuel delivery by truck. This selection is based on the prohibitive costs and timeline associated with pipeline construction, as well as large surface area disturbance that would be associated with a new pipeline right-of-way. Air transport was not considered feasible due to costs, logistics, and additional emissions associated with transporting large volumes of LNG by air (Page 4-68, EIS).

YNLR has concerns with the resulting increase in traffic between La Loche and the Project. Aside from human safety considerations, there will be additional direct and indirect impacts on wildlife.

After evaluation of the relative advantages and disadvantages of the range of feasible alternatives, the selected alternative for camp location for the Project was the west location. As discussed in Section 4.4.2.1, consolidating the site footprint to reduce the overall Project disturbance area (e.g., integrating the camp within the main mine development area and less additional on-site road development) was a key consideration in the selection of this alternative (Page 4-72, EIS).

This decision for a permanent on-site worker camp seems to be at odds with statements regarding the transportation of workers to the Project (Page 1-32, EIS).

It is acknowledged many alternative options are not mutually exclusive, and that different alternative options could be employed in parallel, in series, or in conjunction to meet the long-term needs of the proposed Project. Given that multiple alternative options could be utilized, the selected alternative for each waste type for the Project was determined based on the certainty of achievability and in consideration of the precautionary (i.e., conservative) approach for determining potential effects of the Project on the environment (Page 4-135, Table 4.6-1, page 4-136, EIS).

This summary of selected alternatives for the Project is very clear and useful. In general, YNLR supports the selections made.

Section 5. Project Description (Page 5-1, EIS)

5.1.3 Indigenous and Community Feedback

The EIS (p 5-8) notes that NexGen worked closely with "local communities" from 2013 and prior to starting "the EA process in 2019 through the submission of the Project Description for the Rook I Project (NexGen 2019)"

NexGen began engaging with communities as early as 2013. Unfortunately, discussions with the Athabasca Denesųłiné did not begin until 2019.

Based on the early engagement (e.g., pre-2019), primary communities that were deemed most likely affected by the proposed Project were identified. Then, using these identified communities as a guide, a LPA (local priority area) was established. NexGen engagement activities were focused on primary communities in the LPA. This approach has at least three flaws. First, it ignores or disregards the information provided by the Athabasca Denesųłiné in 2020 that clearly demonstrates their interests in the vicinity of Rook 1. Clearly processes need to respond to the information available. Second, because the inclusion of communities in the LPA (and indeed the geographic extent of the LPA) is based on whether or not they were previously identified means that AD's exclusion is likely self-perpetuating. Since the Athabasca Denesųłiné were not involved in the early stages they could not possibly have been considered nor could the LPA area include them. Third, the proximity of our communities to the project site is downplayed in the EIS by using a road distance measure rather than the well documented cross-country routes our members generally use to access the portion of our territory near the Project. In fact, Fond du Lac is closer to the project site than a number of other groups considered primary!

5.2.4 Local Indigenous Groups and Communities

This section of the EIS describes the categorization of primary and other Indigenous Groups and what this means in terms of EA participation.
It also re-states that "a Study Funding Agreement was also signed with the YNLR … as the YNLR identified an interest in sharing Indigenous Knowledge through an IKTLU Study

The Athabasca Denesųłiné were not deemed by NexGen to be a primary Indigenous Group (and were excluded from the LPA) and were thus not afforded the opportunity to sign a fulsome Study Agreement that allowed for participation in a joint working group aimed at supporting the inclusion of Indigenous knowledge into the EA through ongoing dialogue, for the identification of valued components, for the discussion of other important issues (e.g., caribou, and traditional routes into the project study area, etc.), for the creation of a community liaison position and for the ultimate development of a Benefits Agreement. The inclusion of Athabasca Denesųłiné within these activities would have allowed for a much more complete exploration of Athabasca Denesųłiné rights and interests and how they might be impacted by the Rook 1 Project and ensured that NexGen was able to better understand and appreciate the uniqueness of the Athabasca Denesųłiné. The exclusion of the Athabasca Denesųłiné from the primary Indigenous group category ensured that they were afforded less attention than other Indigenous peoples (e.g., 29 key meetings for the

AD as compared to an average of 157 key meetings on average for each "primary" Indigenous group (See EIS Table 2.6-1)) and limits AD specific information incorporation into VCs, spatial boundaries, existing conditions descriptions, project interactions/mitigation, residual effects analysis, and monitoring, follow-up, and management. This is prejudicial and self-perpetuating

The YNLR prepared (with financial support from NexGen under a limited Study Agreement) the 2020 Report - Provision of Athabasca Denesųłiné Traditional Knowledge, Land Use and Occupancy Information for the NexGen Rook 1 Project Environmental Assessment – on behalf of the Athabasca Denesųłiné communities including Black Lake Denesųłiné First Nation, Fond du Lac Denesųłiné First Nation, and the Hatchet Lake Denesųłiné First Nation. This study clearly shows that our traditional territory, Treaty, and land use overlap the Project Area.

5.3 Project Design Considerations

The EIS notes that the Project will provide meaningful opportunities for local Indigenous Groups and communities.

The Athabasca Denesųłiné were not deemed by NexGen to be a primary Indigenous Group (and were excluded from the LPA) and were thus not afforded the opportunity to sign a fulsome Study Agreement that allowed for participation in a joint working group aimed at supporting the inclusion of Indigenous knowledge into the EA through ongoing dialogue, for the identification of valued components, for the discussion of other important issues (e.g., caribou, and traditional routes into the project study area, etc.), for the creation of a community liaison position and for the ultimate development of Benefits Agreement. The greater involvement of Athabasca Denesųłiné within these activities would have allowed for a much more complete exploration of Athabasca Denesųłiné knowledge, land uses, rights and interests and how they might be impacted by the Rook 1 Project and ensured that NexGen was able to better understand and appreciate the uniqueness of the Athabasca Denesųłiné. The exclusion of the Athabasca Denesųłiné from the primary Indigenous group category ensured that they were afforded less attention than other Indigenous peoples. For example, the EIS identified an average of 157 key engagement activities for each primary Indigenous group while the YNLR (and AD communities) had only 29. This is prejudicial and self-perpetuating.

5.3.2 Design Objectives and Guiding Principles

The EIS notes:

- "In addition to developing and operating the Project in accordance with …standards…NexGen's goal is to leave lasting benefits to local communities…with consideration of current and future generations…incorporating environmental stewardship, social advancement, and sustainable long-term economic benefits for local Indigenous Groups, communities and other stakeholders."
- "commitment to fund and support independent Indigenous Monitors chosen by each primary Indigenous Group for opportunities to participate in environmental monitoring programs for the Project through all phases."

The Athabasca Denesųłiné believe that their categorization as an "other" Indigenous group is incorrect since they have the attributes of a primary Indigenous group. As such, they should be <u>full</u> participants in engagement activities and in any environmental committees and independent monitoring endeavours.

5.6.3 Business and Contracting Opportunities

The EIS discusses "developing and maintaining a business opportunities workplan that would describe the steps that NexGen and each primary Indigenous Group would follow to qualify for business opportunities with the Project."

The Athabasca Denesųłiné believe that their categorization as an "other" Indigenous group is incorrect because they have the attributes of a primary Indigenous Group. The Athabasca Denesųłiné were also excluded from the LPA. The Athabasca Denesųłiné should be categorized as a primary Indigenous group, be part of the LPA, and further, they should be <u>full</u> participants in business and contracting opportunities.

This section of the EIS provides a description of the proposed Rook I Project, including information on the setting, design, components, and activities. It also includes information on the Project's human resource requirements, management system framework, and ongoing review and optimization process during the Project's lifespan. The purpose of the section is to provide the Project details necessary to support the assessment of potential effects on components and attributes of the biophysical, cultural, and socio-economic environments, including ecological health and human health.

The Project would span a 43-year period from the beginning of Construction, through Operations, to the end of Closure. Construction is expected to take place over approximately four years and include activities such as site preparation and infrastructure development. Operation is expected to last for 24 years and include mining and processing and the associated tailings, waste, and water management. Closure would follow, with an expected duration of 15 years. The anticipated physical footprint of the mine site and access road is approximately 228 ha, and would include the following key facilities (Page 5-5, EIS):

- Underground mine development
- Process plant buildings, including uranium concentrate packaging facilities
- Paste tailings distribution system
- Underground tailings management facility (UGTMF)
- Potentially acid generating (PAG) waste rock storage area (WRSA)
- Non-potentially acid generating (NPAG) WRSA
- Special low grade mineralized waste rock and ore storage stockpiles
- Surface and underground water management infrastructure, including water management ponds, effluent treatment plant (ETP), and sewage treatment plant (STP)
- Conventional waste management facilities and fuel storage facilities
- Ancillary infrastructure, including maintenance shop, warehouse, administration building, and camp
- Airstrip and associated infrastructure

- Access road to the Project and site roads

YNLR recognizes NexGen's efforts at minimizing the Project's footprint. However, given the 43-year Project window and the additional decades for full vegetation recovery, YNLR feels that any wildlife habitat destroyed should be offset in the same manner as destroyed fish habitat is under federal law. YNLR generally supports the alternatives assessment selection for each of the above facilities as outlined in Section 4 of the EIS. If there are temporary and permanent camps, YNLR expects that the increased pressure on fish and wildlife harvest in the area will be assessed and mitigated for in some fashion.

Approximately 92 active mineral dispositions, issued to twelve companies, exist within the general area of the proposed Project (Figure 5.2-2). Although mineral dispositions are in the area, they do not necessarily lead to the development of resources due to many factors (e.g., resource geology, environment, technical and economic feasibility, markets). The proposed Patterson Lake South Property, which is planned by Fission Uranium Corp. and is also located on Patterson Lake, approximately 5 km from the proposed Project, recently commenced the EA process per the requirements of The Environmental Assessment Act (Page 5-11, EIS).

YNLR believes that if NexGen is adopting the precautionary principle as stated in earlier sections of the EIS, it cannot minimize the potential of other mining developments in the area in a cumulative effects analysis. This is especially true given the substantial length of time the Rook Project will be operating over, including the decommissioning and reclamation phases, and the fact that uranium will be in increasing demand.

As NexGen has advanced development of the Project, review has been undertaken to confirm those Indigenous communities who may be affected by or have an interest in the Project. Identification of potentially affected or interested Indigenous Groups and communities has been informed through direct correspondence and discussion with Indigenous leaders, community members, and other organizations in the region; review of publicly available information; and guidance provided by provincial and federal regulatory agencies. Further information on the process for the identification of local Indigenous Groups and communities can be found in Section 2.4, Indigenous Group and Stakeholder Identification (Page 5-17, EIS).

YNLR expects to be involved throughout the lifetime of this project. Perhaps NexGen would be interested in co-signing a 'development agreement' of some sort with YNLR in order to facilitate this collaboration?

NexGen's overall philosophy is to design, construct, commission, operate, decommission, reclaim, and close the Project with fit-for-purpose approaches to mine design, management, and operations to deliver enhanced environmental, social, and economic performance. Design of the proposed Project considered the following key principles:

- The Project will be designed and operated to ensure the safety of workers, Indigenous and local communities, and the public.

- The Project will provide site-specific, industry-leading environmental, social, and economic performance.
- The Project will provide meaningful opportunities for local Indigenous Groups and communities.

Project design to date has incorporated applicable regulatory guidance, design standards, and the local environment and been influenced by Indigenous and Local Knowledge (Page 5-25).

NexGen's development philosophy largely meshes with that of YNLR. However, YNLR expects the interaction between the company and indigenous people to be ongoing throughout the lifetime of the project.

NexGen is dedicated to minimizing potential effects on the environment throughout all phases of the Project; incorporating proven best practices and designs around mine planning, tailings and mine rock management; and reducing the operational footprint. NexGen delivers innovative solutions to complement proven technologies while recognizing and valuing the importance of protecting and preserving the environment throughout the Project lifespan and beyond. NexGen's approach to responsible development includes (Page 5-29, EIS):

- Early and continuous Indigenous and public engagement on environmental protection
- Exercising responsible stewardship of air, land, and water resources
- Applying economically viable best available technology and techniques
- Avoiding or minimizing Project effects
- Designing and operating for responsible closure and long-term land use
- Minimizing the generation of waste
- Responsibly managing tailings and waste facilities
- Respecting the principles of pollution prevention
- Responsibly managing energy use and greenhouse gas emissions
- Maximizing the application of the reduce, reuse, and recycle principles
- Monitoring and adaptively managing the Project based on rigorous scientific practice and in consideration of Indigenous and Local Knowledge
- Working with local Indigenous Groups to implement independent environmental monitoring

NexGen's environmental protection philosophy largely meshes with that of YNLR. However, YNLR expects the interaction between the company and indigenous people to be ongoing throughout the life of the project. Indigenous people are not stakeholders; they are rights-holders.

The Project's decommissioning and reclamation objectives are intended to establish a closure landscape that would be (Page 5-29, EIS):

- Geotechnically, geochemically, and radiologically stable and remain stable under a natural disturbance regime typical for the Project location
- Able to support the sustainable management of surface water and groundwater quantity and quality on and off site such that it safely sustains fish and wildlife populations and is safe for human use

- Capable of supporting a functioning, self-sustaining ecosystem with diverse fish and wildlife habitats that retains the landscape and its function as designed over time and that requires no or minimal maintenance post-closure
- Accessible for unrestricted traditional use by Indigenous Groups and local communities
- Integrated with the adjacent natural landforms and drainage systems in the Patterson Lake watershed and have a natural appearance

Key documents in planning for the effective closure of the Project would include decommissioning and reclamation plans. A Preliminary Decommissioning and Reclamation Plan is currently under development and will provide a conceptual overview of the strategy for decommissioning and reclaiming the proposed Project (Page 5-30, EIS).

YNLR believes that effective follow up and monitoring is one of the key measures of sustainability, whether social, economic, or environmental. As such, YNLR expects to be involved in the design and implementation of monitoring programs over the life of the Project.

The Project components are summarized within this subsection by key area (Page 5-41, EIS):

- Mining
- Processing
- Tailings management
- Mine rock management
- Site water management
- Conventional waste management
- Supporting infrastructure
- Off-site infrastructure

Other than the direct and indirect surface disturbance generated by the Project, YNLR is highly concerned with the potential for contamination of soils and water from these components, especially in Patterson Lake. This concern also holds for the various Project activities including construction, commissioning, operation, decommissioning, and reclamation of the Project.

During Construction and Operations, an increase in traffic volumes is expected along Highway 155 and 955 associated with the proposed Project. Details associated with predicted traffic volumes during Construction and Operations are provided in Table 5.5-4 and Table 5.5-5, respectively.

The predicted traffic tables referred to are somewhat confusing to understand and don't reference any baseline conditions, hence it is difficult to assess the impact of increased vehicular traffic created by the Project.

NexGen is committed to the following measures to enhance employment opportunities at the proposed Project (Page 5-110, EIS):

- Implementing a tailored local workforce recruitment strategy to confirm that local residents are fully aware of and understand how to access Project employment opportunities
- Working with local communities to develop culturally sensitive employment policies, including addressing recruitment and retention barriers
- Using best efforts to provide qualified local residents with a first preference for employment and training opportunities to achieve a long-term aspirational target of 75% of the Project's workforce being compose of local residents
- Establishing a mentoring program to support long-term participation of local residents in the Project workforce
- Prioritizing advancement opportunities for qualified local residents into increasingly senior positions
- Providing dedicated space for Elders to be available to support Indigenous employees and assist with employee retention

YNLR is hopeful that this Project will generate the promised significant employment, training, business, and contracting opportunities for local and indigenous people. However, ongoing dialogue is needed.

The purpose of this Project description is to provide the Project details necessary to support the assessment of potential effects on components and attributes of the biophysical, cultural, and socio-economic environments, including ecological health and human health. The proposed Project components, activities, and systems described herein have been developed following NexGen's design objectives, guiding principles, and commitment to protecting the environment and the safety of workers and the public as described in Section 5.3.2. Some key aspects of the Project description that reflect this approach include (Page 5-116, EIS):

- Deposition of tailings underground (as opposed to on or near surface), to eliminate surface tailings storage infrastructure and the associated risks and the potential long-term effects on the lands and waters, including water quality and fish habitat
- Permanent underground tailings storage with engineered barriers to minimize seepage into groundwater and potential effects on aquatic organisms in Patterson Lake and the people who may use these resources
- Intentional consolidation and limiting of the total Project footprint (e.g., clustering buildings, optimizing the use of cleared areas, using existing road infrastructure) as much as practical to minimize the loss of land use by Indigenous Peoples and others, minimize loss of wildlife habitat, increase the ease and rate of reclamation, and focus on end land use
- Separate management and storage strategies for PAG and NPAG materials
- Installation of an engineered cover on PAG material to minimize the long-term risks from seepage of constituents of potential concern into the ground and surface waters, and subsequent uptake by vegetation and transfer up the food chain
- A focus on holistic water management that maximizes non-contact water diversion and provides for controlled and flexible release of contact water meeting discharge criteria
- Design and placement of the treated effluent diffuser to reduce potential effects on the water and fish habitat of Patterson Lake
- Use of primarily LNG for power generation to reduce Project greenhouse gas emissions

YNLR supports NexGen's design efforts to minimize the environmental impacts of the Project to date. However, ongoing dialogue will be needed.

It is recognized that review and optimization of Project components and activities described herein would be undertaken throughout the Project lifespan with the objective of identifying opportunities to further enhance the environmental, technical, economic, and social performance of the Project. Where potential adverse effects are identified, either during design, Construction, Operations, or Closure, feasible environmental design features and/or mitigation practices would be implemented to avoid and minimize the potential adverse effects (Page 5-116, EIS).

YNLR supports the application of adaptive management throughout the Project's lifespan, but expects such changes to be open, transparent, and collaborative in nature.

Project review and optimization would be proactively pursued following the precautionary principle, and with the intent that any potential design iterations and mitigations would be improvements on, and within the current considerations of, the assumptions carried within the EA (i.e., within the scope of the Project as defined for assessment). The precautionary principle states "where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation" (Page 5-116, EIS).

YNLR supports the application of the Precautionary Principle throughout the Project's lifespan.

Section 6. Environmental Assessment Approach and Methods (Page 6-1, EIS)

The purpose of Section 6, Environmental Assessment Approach and Methods, is to describe the scope and general approach and methods applied for the Project EA. The scope and general approach and methods have been designed to meet both the Terms of Reference for the Project submitted to the Saskatchewan Ministry of
Environment and the Canadian Nuclear Safety Commission (CNSC) Generic Guidelines for the Preparation of an Environmental Impact Statement – Pursuant to the Canadian Environmental Assessment Act, 2012 (Appendix 1A, Concordance Tables) (Page 6-5, EIS).

The general approach to an EA entails a systematic consideration of how project components and activities may interact with the environment and result in effects on the biophysical, cultural, and socio-economic environments. Where potential adverse effects are identified, either from normal operating activities or from potential accidents and malfunctions, feasible environmental design features and/or mitigation practices are implemented to avoid or minimize these potential adverse effects. Applying such mitigation follows the Precautionary Principle, which states "where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation" (Page 6-5, EIS).

YNLR understands and supports the use of the Precautionary Principle. However, at what point is it usual to say we have too little, or too much information? Isn't that being somewhat subjective?

The existing or current conditions of the biophysical, cultural, and socio-economic environments are described in the Environmental Impact Statement (EIS) as a basis to identify, assess, and determine the significance of potential adverse effects of the Project. Baseline studies were conducted to support the characterization of the environment before disturbance from the Project. Baseline studies involved the collection of data from field programs and socio-economic studies. The understanding of the existing conditions also informed Project design features and potential mitigation measures that might be required (Page 6-5, EIS). In addition to assessing the effects from a project, the assessment must include an analysis of the cumulative effects that are likely to result from a project in combination with other developments (Page 6-6, EIS).

YNLR is very concerned about the long-term ramifications of cumulative effects, especially when northern Saskatchewan is facing a time of greatly accelerating development. One species, woodland caribou, already seems to have fallen victim to such effects.

The following EA approach was applied to individual components such as air quality, hydrology, Indigenous land and resource use, etc., as described in Sections 7 to 19 of the EIS, and included the following steps (Page 6-6, Figure 6.1-4, EIS):

- Describe how Indigenous Knowledge was collected and incorporated into the EIS (Section 6.2)
- Define the valued components (VCs) and intermediate components, as well as the associated assessment endpoints and measurement indicators, for the biophysical, social, heritage, cultural, and economic aspects of the environment that could be potentially affected by the Project (Section 6.3)
- Define the spatial and temporal boundaries of the EA (Section 6.4)
- Describe the assessment cases, which consider existing conditions, the Project, and other reasonably foreseeable developments (Section 6.5)
- Describe the existing conditions, which include the combined effects of previous, existing, and approved projects, to provide context for evaluating potential incremental project effects (i.e., Project-specific) and cumulative effects (Section 6.6)
- Provide the definitions of pathways and general approach and methods for evaluating relevant effects' pathways (i.e., interactions) between the Project and biophysical, cultural, socio-economic, and human health VCs (Section 6.7). This step included consideration of environmental design features and mitigation
- Complete an assessment for associated primary pathways to predict Project-specific residual effects for each VC and as well as residual cumulative effects from the Project (Section 6.8)
- Classify and tabulate residual effects using the following criteria: direction, magnitude, geographic extent, duration, frequency, reversibility, and probability of occurrence to provide structure and comparability across VCs. Once residual effects were defined, a significance determination for VCs was completed (Section 6.9)

- Identify key uncertainties in the EA and describe how these uncertainties were addressed to achieve a precautionary assessment. Discuss the implications of the approaches used to address uncertainties and the level of confidence in the residual effects analysis (Section 6.10)
- Propose monitoring and follow-up activities to verify the predicted residual effects; evaluate the effectiveness of planned mitigation designs, policies, and practices; and address key sources of uncertainty (Section 6.11)

YNLR will be interested to see how indigenous knowledge is incorporated into this standard EA approach, together with how it is integrated with knowledge derived from more conventional scientific methods.

Valued Components (VCs) are aspects of the biophysical, cultural, and socio-economic environments that are considered to have scientific, social, cultural, economic, historical, archaeological, or aesthetic importance (CNSC 2021). Valued components are identified to be of concern by the proponent, scientists, government agencies, Indigenous Peoples, or the public (CEA Agency 2018). The selection of appropriate VCs allows an EA to be focused on those aspects of the biophysical, cultural, and socio-economic environments that are of greatest importance to both society and species conservation (Page 6-9, EIS).

In addition, the local indigenous BNDN and BRDN define VCs as tangible biophysical resources (e.g., particular places and species) and less tangible (i.e., intangible, not physical) social, economic, cultural, health, and knowledge-based values
(e.g., social cohesion, place names, Indigenous language). Additionally, the Canadian Environmental Assessment Agency (CEA Agency 2015) was cited in an IKTLU study, which stated (Page 6-9, EIS):

Physical and cultural heritage refers to the "important aspects of human history and culture [that] encompass various social, economic, political, environmental, scientific, natural and cultural dimensions . . . Spiritual and cultural practices of Aboriginal Groups" are often integrally linked to specific locations and surrounding landscape features, as well as objects of social significance.

Valued components were selected using the results from baseline studies and IKTLU Studies and feedback from engagement with regulators, Indigenous Groups, and the public. The following factors were considered when developing the list of VCs for the Project (Page 6-9, EIS):

- Potential for interaction with the Project and degree of interaction, including presence, abundance, and amount of spatial overlap of a VC with the Project
- Sensitivity of a VC to potential Project effects and level of damage or harm that could be realized should an adverse effect occur
- Species conservation status or concern (e.g., rarity, sensitivity, uniqueness)
- Indigenous and Local Knowledge obtained from feedback during community engagement sessions for the Project in La Loche, Turnor Lake, Buffalo River, and Buffalo Narrows (Sections 2 and 3); information provided by IKTLU Studies, including YNLR, and obtained through discussions with the JWGs

- Ecological and socio-economic/cultural value to communities, government agencies, and the public
- Inclusion in Appendix C of REGDOC 2.9.1 (CNSC 2020)
- Recent experience with similar projects in Saskatchewan and other jurisdictions in Canada
- Avoidance of redundancy with other VCs; if two potential VCs represent the same issues, mitigation actions, and potential effects from the Project, only one was evaluated as part of the assessment

The correct selection of VCs is critical to the successful outcome of an EA. Poorly thought out VC selection can lead to erroneous conclusions from the modeling, resulting in potential harm to people and the environment. YNLR is pleased that the YNLR study and other indigenous knowledge and values were included in the analysis. However, YNLR questions the statement regarding avoidance of VC redundancy – strictly speaking, a species can only indicate itself because every species has its own ecological niche. For example, two songbird species can inhabit the same habitat and serve as indicators for that habitat, but other aspects of their ecological niches (e.g. diet, behaviour) can be entirely different. Arbitrarily dropping one from an impact analysis could therefore lead to erroneous results.

Each VC assessment used assessment endpoints and measurement indicators to structure the analyses and facilitate assessment conclusions and determination of significance. Assessment endpoints are qualitative expressions that represent the key properties of VCs that should be protected. These endpoints provide additional definition to VCs to support the residual effects assessment and significance determination. Measurement indicators represent physical and biological/human attributes of the biophysical, cultural, and socio-economic environments that can be measured to help inform the assessment of VCs (Page 6-10,EIS).

Assessment endpoints incorporate the concept of sustainability. In this context, sustainability means "the ability to protect the environment, contribute to the social and economic well-being of the people of Canada, and preserve their health in a manner that benefits present and future generations" (IAAC 2020a). At a high level, sustainability means meeting this generation's needs without compromising the ability of future generations to meet their own needs. Environmental sustainability considers the maintenance of ecological integrity, and social sustainability considers economic stability and healthy communities (Page 6-10, EIS).

This definition of sustainability meshes with that of YNLR. However, while YNLR understands that measurement indicators need to be more quantitative than endpoints, it is not clear at this stage (Table 6.3-1 notwithstanding) which measurement indicators could be readily used to calibrate an endpoint like 'cultural integrity' or 'indigenous resource use' in the same way as they are used to calibrate ecological integrity.

Valued Components and Associated Assessment Endpoints and Measurement Indicators (Table 6.3-1, Page 6-12, EIS).

Notwithstanding the rationale behind VC selection provided in earlier sections, YNLR questions some of the resulting selections in Table 6.3-1. Why are some species and habitats selected but not others? For example, upland and riparian ecosystems are identified but only from amount, distribution, and integrity perspectives. Shouldn't post fire age of upland ecosystems be considered here, especially from the perspective of woodland caribou or other species dependent on older forest seral stages? The same applies to the mammal species selected as VCs. Why only one species of furbearer? Why was the wolverine omitted? Canada Lynx etc? For birds, why are species like olive-sided flycatcher and rusty blackbird selected, but not a variety of other forest songbirds that are considered at risk, such as the bank swallow, barn swallow, and Canada warbler. No aerial feeders are included, such as common nighthawk, also a species at risk. Two species of ducks are selected as VCs, but not the horned grebe, again an at risk species. What about the validity of the leopard frog as a VC?

On the human side, YNLR questions how the VC of Indigenous Land and Resource Use is effectively measured from the following somewhat vague and subjective measurement indicators (Table 6.3-1):

- ***Changes to access to and area available for Indigenous land and resource use***
- ***Changes to the availability and quality of fish, plants, and wildlife for harvesting***
- ***Changes to the quality of the Indigenous land use***

The same is true for the VCs such as 'Other Land and Resource Use' and 'Community Well-Being. Their measurement indicators are again somewhat vague and subjective.

Intermediate components of the biophysical environment were also assessed to support VC assessments. Intermediate components include physical attributes of the biophysical environment or media upon which VCs rely, such as air quality and hydrology (Table 6.3-2). Intermediate components are identified using the same process described for VCs (Section 6.3.1, Valued Components). Similarly, VCs and intermediate components are assessed using the same steps. However, unlike
VCs, intermediate components do not have assessment endpoints or significance criteria (Page 6-14).

The maintenance of air and water quality over the long term is a very high priority for YNLR, which expects monitoring programs to be properly designed and implemented with YNLR participation in order to detect significant deviations from baseline conditions.

An environmental risk assessment (ERA) was completed for the Project that included a human health risk assessment and an ecological risk assessment. The ERA examined both aquatic and terrestrial ecosystems. Healthy lakes, rivers, plants, fish, and wildlife are important to Indigenous land and resource use in the area of the Project. People from the local communities and Indigenous Groups expressed concerns about potential contaminants entering the environment and making it unsafe for people to drink the water and eat the plants and animals (Page 6-16, EIS).

The ERA is a holistic assessment of the overall ecosystem and human environment that considers multiple pathways from potential sources of chemical and radiological exposure through environmental media to biological receptors. Receptors represent people and aquatic and terrestrial plants and animals that might be exposed to air pollutants, metals, and other harmful substances related to Project activities. These harmful substances are called constituents of potential concern (COPCs). The receptor selection process for the ERA considered some of the same criteria as for VCs, such as the presence and abundance of the species in the area of the Project, value or importance to Indigenous communities and other land and resource users in the area, and species conservation status or concern (Page 6-16, EIS).

The human health assessment is provided in Section 15, Human Health, and results from the ecological health risk assessment are provided in relevant sections such as Fish and Fish Habitat (Section 11), Vegetation (Section 13), and Wildlife and Wildlife Habitat (Section 14) (Page 6-17, EIS).

YNLR supports the use of an ERA to predict the potential exposure of people and the environment to harmful contaminants. We will carefully consider its findings.

The biophysical VCs and assessment endpoints in Table 6.3-1 were selected in a manner that allowed potential effects on biodiversity to be evaluated. Biodiversity can be defined as the abundance and variety of living organisms and ecosystems on Earth, and it includes life at all levels of biological and ecological organization such as species, communities, habitats, ecosystems, and their interactions as well as the ecosystem services they provide. Biodiversity conservation often considers both a coarse-filter and fine-filter approach. The coarse-filter approach involves maintaining a diversity of structures within forest stands and a diversity of ecosystems across the landscape to meet most of the habitat requirements for the majority of the native species. The fine-filter approach is directed toward particular habitats or species that may be threatened or endangered and might fail to be identified through a coarse filter (Page 6-17, EIS).

Project-specific and cumulative effects on biodiversity were evaluated for the biophysical VCs in the fish and fish habitat, vegetation, and wildlife and wildlife habitat disciplines in Section 11, Section 13, and Section 14 of the EIS, respectively. The effects assessment for biodiversity was completed through the assessment of changes in measurement indicators for fish and fish habitat, vegetation ecosystems and traditional use plants, and wildlife and wildlife habitat. Combined, these discipline sections provide a holistic coarse- and fine-filter assessment of the potential effects of the Project on biodiversity (Page 6-17, EIS).

YNLR supports the conservation of all living things as represented by the concept of biodiversity, and supports the application of both fine (species) and coarse (ecosystem) filter management approaches in achieving this. However, YNLR recognizes that the few biological VCs selected for this EIS represent a very small fraction of the many thousands of species that exist in the boreal forest. <u>It is misleading to suggest that a handful of species can represent the many other thousands of species in the boreal forest and its ecological</u>

***health/integrity*. In addition, the likelihood of the EIS effects modeling committing Type 2 statistical errors cannot be dismissed, which is why rigorous follow up and statistically valid monitoring are so critical.**

Assessment boundaries define the geographic (spatial) and temporal extents of the assessment for each technical discipline. Although additional spatial scales are possible for individual VCs and intermediate components, spatial scales typically include a minimum of a site study area (the Project), a local study area (LSA), and a regional study area (RSA; CNSC 2021). The LSAs used within discipline assessments were defined at a scale that contains most or all of the expected effects of the Project on a VC and supporting intermediate components; as such, more detailed data were collected in the LSA to describe existing conditions. The RSAs used within discipline assessments included larger areas designed to provide broader context for the assessment of Project effects on VCs and intermediate components and the appropriate scale to assess cumulative effects from the Project combined with existing conditions and other 'reasonably' foreseeable developments. For VCs with extensive distributions, such as fish that can move within a watershed and wildlife species (e.g. woodland caribou) that move within large seasonal ranges, effects from the Project have a higher likelihood of combining with effects from other human developments and activities at a larger geographical scale. Regional study area boundaries were defined to capture such potential interactions for each VC. The spatial boundaries considered for VCs and intermediate components and the rationale for the selection of these boundaries are identified in each discipline section of the EIS (Page 6-18, EIS).

YNLR believes a figure for illustration purposes would have been useful here, although the text suggests that more than one LSA and RSA were used for the assessments. Certainly, the RSA(s) for woodland caribou and larger carnivores need to be large enough to reflect the home ranges of the species under consideration. YNLR is very concerned with cumulative effects, and will carefully consider what the EIS decides on what is a 'reasonably' foreseeable development and what is not. For example, the area is covered with mineral claims.

The temporal scope of the EA focuses on the 43-year period from initial Construction to the end of Decommissioning and Reclamation (i.e., Closure). The temporal scope of the EA is intended to evaluate the shorter- and longer-term changes from the Project and the associated Project-specific and cumulative effects on the biophysical, cultural, and socio-economic environments. While the temporal scope varies by VC, the minimum temporal boundary for the EA is defined by the following Project phases (Page 6-19, EIS):

- Construction 4 years
- Operations 24 years
- Decommissioning and reclamation 15 years

In certain circumstances, the duration of effects may extend beyond specific phases of the Project, including Closure, depending on the physical, biological, social, and/or cultural properties and resilience of VCs and intermediate components. Under these circumstances, effects from the Project that may occur well beyond closure were also assessed using a far-

future scenario. This far-future scenario is not a Project phase; it encompasses the long-term period during extremely slow migration of COPCs from the underground tailings management facility and waste rock storage areas to the environment are anticipated (i.e., more than 5,000 years).
The temporal boundaries used in the EA were specific to the VCs and intermediate components and considered the identified Project phases. For some VCs and intermediate components, residual effects were assessed for all phases of the Project. For other VCs and intermediate components, residual effects were only relevant to specific Project phases (Page 6-19, EIS).

As with spatial boundaries, there appears to be more than one temporal boundary. The presence of the far-future scenario really underscores the need for the Project to be carefully designed and implemented, and for thorough follow up and monitoring. It also reinforces the need for open and transparent involvement with the local and indigenous people.

Assessment cases are development scenarios that distinguish between existing, proposed, and future projects so that the results of each scenario can be compared to each other. The concept of assessment cases was applied to the assessment boundaries of the associated VCs and intermediate components to estimate the incremental and cumulative effects from the Project and other developments. The approach incorporated temporal boundaries for analyzing the potential effects from previous, existing, and approved projects and RFDs before, during, and after the anticipated lifespan of the Project. The assessment cases comprised (Page 6-20, EIS):

- Base Case (Existing)
- Application Case (Base + Project)
- RFD Case (Application + Reasonable Foreseeable Developments)

For the purposes of the EA, RFDs are defined as projects and activities that fit any of the first three and both of the last two criteria from the list below (Page 6-20, EIS):

- Are currently under regulatory review or have officially entered a formal regulatory application process
- Have been publicly disclosed by other proponents
- May be induced by the Project
- Have the potential to change the Project or the effects predictions
- Occur in the spatial assessment boundary defined by the VCs and intermediate components

An additional key criterion for selecting other projects to include in the EA for a discipline is that those projects must cause similar effects on the same VCs or intermediate components influenced by the Project (Hegmann et al. 1999).
Accordingly, an RFD Case was not required for all VCs and intermediate components as it depended on whether or not effects from the RFDs would have the potential to overlap with the selected VCs and intermediate components within the spatial and temporal assessment boundaries defined for the Project (Page 6-20, EIS).

YNLR believes these criteria are very restrictive and/or subjective in nature and will preclude many RFDs that might otherwise increase cumulative effects in conjunction with

the NexGen Project. Why so narrow an approach? Why not instead model various levels of RFD to generate future potential scenarios of cumulative effects? Furthermore, it appears that a lower number of VCs leads to a lower likelihood of a CEA being triggered, which shouldn't be the case. The two variables should be independent of one another.

Indigenous Knowledge indicated concerns about cumulative effects from human development and policies and climate change. The CRDN specifically mentioned the risk of cumulative effects from the Project and the nearby proposed Fission Patterson Lake South Property, which is planned by Fission Uranium Corp (Page 6-21, EIS).

The Fission Patterson Lake South Property was therefore designated as an RFD in the EA and applied to the RFD Case for VCs and intermediate components. Exceptions were climate change, hydrogeology, and terrain and soils, which did not assess an RFD Case and the rationale is provided in these discipline sections. Additional RFDs were identified and included in the assessment of cumulative effects for applicable VCs (e.g., woodland caribou). The minimum temporal overlap of potential cumulative effects from the Project and the Fission Patterson Lake Property was assumed to be 15 years. Depending on the amount of time for effects to be reversed, the duration of cumulative effects from the two projects would vary among VCs and intermediate components (Page 6-22, EIS).

YNLR has echoed these indigenous concerns to both Fission and NexGen so is pleased a CEA was triggered in this case. YNLR will pressure Fission to do the same. However, we note that an overlap of 15 years is a <u>minimum</u> and it should be treated as such. In the case of woodland caribou, it is been established for some time now that their populations decline due to the cumulative effects of both human and natural disturbance, so this analysis should be taken seriously.

Pathways analysis is a process that is used to develop an understanding of how a project may affect VCs and intermediate components. Potential Project effect pathways are identified, and mitigation that can be incorporated into the Project to minimize adverse effects is reviewed to assess if, after incorporation of mitigation, there is still potential for a project to cause residual effects (Page 6-23, EIS). Following pathway identification, the next step of pathway analysis includes the development of environmental design features and mitigation that could be incorporated into a project to remove a pathway or limit the effects on VCs and intermediate components. This step includes the application of the precautionary principle. Mitigation involves measures to avoid, eliminate, minimize, control, reclaim or offset the adverse effects of a project, and it includes restitution for any damage caused by those effects through replacement, restoration, compensation, or other means (Page 6-24, EIS).

Proponents should offset effects that cannot be fully mitigated through avoidance, minimization, and reclamation measures or when temporal losses to the environment would compromise the viability or function of aspects of the environment. Offsetting measures typically counterbalance this loss through positive contributions to the ecosystem. Offsets may include compensation or community enhancement. Offsetting requirements are determined through regulatory processes and engagement, and monitoring is needed to determine effectiveness (Page 6-25, EIS).

YNLR understands the concept of pathways analysis and the resulting mitigation measures, including offsetting. Earlier in this review, YNLR argued that wildlife habitats functionally lost for several decades should be offset in the same way that fish habitats are under federal law. The above statement referring to temporal losses to the environment would appear to support this.

Given the uncertainty and time lag inherent in reclamation and offsetting, a precautionary approach was applied to the assessment, and reclamation and offsetting were not used to remove pathways (Page 6-25, EIS).

YNLR questions why uncertainty and time lag would always preclude offsets. In fact, the longer that habitats are non-functional, the stronger the case for offsetting them. For some reason, fish habitat offsets under federal law are not mentioned in this part of the EIS, which is unfortunate.

To focus the residual effects analysis on the most important and meaningful changes from a project, pathways are screened for each VC and intermediate component. For the Project, each potential effect pathway was evaluated using proposed mitigation to predict whether the pathway had the potential to cause residual adverse effects. The effectiveness of mitigation proposed for each pathway analysis was assessed to determine whether the mitigation would address the potential Project effect such that the pathway was eliminated or would result in a negligible adverse effect on a VC or intermediate component (Page 6-26, EIS).

Residual effects are those effects that remain after mitigation has been applied with known or expected success. A residual effects analysis is a method to determine the residual effects for a given VC or intermediate component. As part of the residual effects analysis, the predicted environmental changes for primary pathways were evaluated using methods appropriate for each discipline. The methods used to make predictions varied by VC and intermediate component and are described in the applicable discipline section (Sections 7 to 19). Where possible and appropriate, each analysis was quantitative and included data from field studies, modeling results, scientific literature, government publications, monitoring reports, and personal communications. Environmental changes were then predicted for the Application Case (Project effects) and RFD Case (Cumulative effects – see above) for VCs and intermediate components within the defined spatial and temporal assessment boundaries (Page 6-27, EIS). The methods and results of the residual effects analysis for VCs and intermediate components are provided in each discipline section (Section 7 to Section 19) with appendices to provide comprehensive details associated with data, analysis, and modeling, where appropriate (Page 6-28, EIS).

YNLR will reserve comments on this for the results section of the residual effects analysis.

The residual effects analysis generated the information required for the classification of effects and determination of significance. For VCs, the outcomes of the residual effects analysis were described considering the influence on assessment endpoints (Page 6-29, EIS).

The purpose of the residual effects classification is to describe the residual incremental and cumulative adverse effects from previous and existing developments and the Project (Application Case) and potential future developments (i.e., RFD Case). Residual effects on VCs and intermediate components are described using a set of common words or effects criteria. The use of effects criteria to facilitate classification of adverse residual effects is an accepted practice in EAs (CEA Agency 2018; CNSC 2021). The residual effects classification uses direction, magnitude, geographic extent, duration, reversibility, frequency, and probability of occurrence as criteria. It is not possible to define meaningful effects criteria and significance that are universally applicable to all VCs and intermediate components. Consequently, definitions for each effect criterion are presented in each discipline section (Page 6-29, EIS).

Following the classification of residual adverse effects, a determination of significance was completed for VCs, as VCs have assessment endpoints or qualitatively defined significance thresholds (Section 6.3.1). Significance determination was binary, such that adverse effects were either deemed significant or not significant for each VC. Although the positive residual effects associated with the Project are reported in the EIS, these residual effects were not assessed for significance (Page 6-31, EIS).

Given the binary, and therefore somewhat subjective application of significance, YNLR wonders whether the precautionary principle was applied in this exercise? Furthermore, why only binary? Why not additional degrees of significance?

The Canadian Environmental Assessment Agency (CEA Agency 2015, 2018a) recommends that significance be determined for both the residual effects of the Project alone and the cumulative effects of the Project combined with other developments (CEA Agency 2015, 2018a). Generally, a determination of significance cannot be accomplished without a cumulative effects assessment because the effects of a single project seldom cause an environmentally significant effect on their own (McCold and Saulsbury 1996), and many environmental effects of primary concern are cumulative (Canter and Ross 2010). Significance was determined for the Application Case and RFD Case, as applicable (Page 6-31, EIS).

YNLR questions the statement that a single project seldom causes an environmentally significant effect on its own. Surely this is a scale dependent question, depending on the extent of the spatial and temporal boundaries selected?

Key factors that were considered in the determination of significance for VCs are summarized as follows: Magnitude, geographic extent, and duration were the primary criteria used to determine significance, while other criteria such as frequency, reversibility, and probability of occurrence were used as modifiers.
Effects were predicted to be less harmful if the probability of occurrence of the effect was unlikely as supported by the assessment results and scientific studies (Page 6-31, EIS)

YNLR notes that much of the overall effects analysis is fairly qualitative and therefore subjective in nature. It will be interesting to see how this translates under the various discipline sections of the EIS.

Applicable ecological or socio-economic context and uncertainty in effects predictions were also evaluated against assessment endpoints for each VC.
A major element of the EA is the prediction of future conditions of the biophysical, cultural, and socio-economic environments as a result of the Project, previous, existing, and approved projects, and RFDs. Given that biophysical, cultural, and socio-economic environments change naturally and continually through time and across space, assessments of effects and predictions about future conditions embody some degree of uncertainty (CEAA 2018). The purpose of the Prediction Confidence and Uncertainty sections of the EIS is to identify the key sources of uncertainty and qualitatively describe how uncertainty was addressed to increase the level of confidence that effects would not be larger than predicted. Additionally, this information can be used to inform the monitoring and follow-up programs that can reduce uncertainty over time (Page 6-33, EIS).

Each discipline section includes a discussion of how uncertainty was addressed and provides a qualitative evaluation of the resulting level of confidence. The implications of uncertainty are also included in the residual effects analysis and classification (i.e., probability of occurrence criterion) and the determination of significance. Where necessary, residual uncertainty is addressed by proposing additional mitigation, compliance monitoring programs, and/or follow-up monitoring programs (Page 6-34, EIS).

See previous comment on the largely qualitative nature of the assessment.

Once a project is approved, environmental monitoring is used to verify the predicted effects and to measure compliance with future permit conditions. Monitoring is also used to identify any unanticipated effects and provide input into adaptive management to limit these effects. Typically, monitoring includes one or more of the following categories, which may be applied during the development of the Project (Page 6-34, EIS):

- Regulatory compliance monitoring to confirm the implementation of approved design standards, mitigation, conditions of approval, and NexGen commitments. Compliance monitoring also confirms that project activities do not exceed environmental conditions within or below protective thresholds.
- Follow-up monitoring to test the accuracy of effects predictions, reduce or address uncertainties, determine the effectiveness of mitigation, or provide adaptive management for operations.

Given the significant nature of the Project and its impact assessment, YNLR is strongly supportive of well-designed, transparent, and statistically valid monitoring programs and expects YNLR community member involvement with their inception and implementation.

Section 7. Air Quality, Noise, and Climate Change (Page 7-1, EIS)

This section of the Environmental Impact Statement (EIS) provides a comprehensive assessment of potential effects of the Project on the atmospheric environment. The assessment of the atmospheric environment encompassed the following three discipline components:

- Air quality

- Noise
- Climate change

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This atmospheric assessment included consideration of both potential effects from the Project and cumulative effects from the Project and other reasonably foreseeable developments (RFDs). The assessment for Section 7 used widely accepted scientific practices and incorporated Indigenous and Local Knowledge (Page i, Section 7, EIS).

YNLR is concerned with how the Project is going to affect both air quality (including dust) and noise, not only from the standpoint of people, but also from the standpoint of wildlife and the general environment. Are roads and the increased associated traffic considered to influence air quality and noise in the EIS?

Air quality represented an intermediate component in the Environmental Assessment (EA); the selection was based on the connection of air quality to soil and water and the health of vegetation, wildlife, and people. Unlike VCs, intermediate components, such as air quality, were not assessed for significance.

The local study area (LSA) for the air quality assessment was defined as a 90,000 ha (900 km2) area centred on the Project. The LSA is the area within which air quality effects due to the Project may be highest and can be predicted or measured with reasonable certainty. The LSA encompasses the local lakes surrounding the Project (e.g., Patterson Lake, Broach Lake, Jed Lake, Forrest Lake, Beet Lake, Naomi Lake) that are important to the assessments of other disciplines. The regional study area (RSA) was defined as a 640,000 ha (6,400 km2) area centred on the Project. The RSA encompasses large waterbodies (e.g., Preston Lake and Lloyd Lake) and areas that are more than 20 km from the proposed Project site. The RSA was designed to provide broader context for the assessment of Project effects on air quality and was the appropriate scale for the assessment of cumulative effects (Page i, Section 7, EIS).

The air dispersion modeling domain was defined as a 1,000,000 ha (10,000 km2) area centred on the Project and included the entire LSA and RSA. This area was designed to be large enough so that the predictions made within the RSA either reach background levels or are less than 10% of the air quality criteria.

These airshed study areas seem to be reasonable and cover very important aquatic ecosystems. YNLR understands that air quality effects are scale dependent, but doesn't completely follow the logic behind the statement referencing '10% of the air quality criteria'.

A baseline field study and desktop study were undertaken to characterize air quality within the LSA and RSA. Ambient levels of SO2 exceeded the provincial guideline. Background concentrations of PM2.5, PM10, total suspended particulates (TSP), carbon dioxide, nitrogen dioxide, sulphur dioxide were modeled as required by Saskatchewan Ministry of Environment guidance. The background concentrations are representative of a rural setting, being relatively unaffected by outside influences on air quality. Based on the monitoring results, existing air

quality conditions were close to or lower than the prescribed background concentrations in the Saskatchewan Air Quality Model Guideline.

An analysis was completed to evaluate Project components and activities and associated effects pathways that could potentially affect air quality. The evaluation also considered similar combined effects from the Fission Patterson Lake South Property, the identified RFD for the air quality assessment. Project activities that would have the potential to affect air quality during the Project lifespan include:

- Combustion of fossil fuels in stationary, mobile, and heavy equipment
- Handling and stockpiling of waste rock, special waste rock, and ore
- Gypsum storage in waste rock storage areas
- Underground drilling and blasting
- Waste incineration

As part of the pathway analysis, proposed environmental design features and mitigation measures were considered to determine whether effects to the environment could be avoided or reduced to negligible levels, thereby removing the pathway. These included application of water and/or chemical suppressants to site roads, access road, and airstrip to mitigate dust emissions (Page ii, Section 7, EIS).

Airborne dust from local roads will apparently be mitigated, but what about the increased dust from the elevated traffic levels on Highway 955 between La Loche and the Project?

A residual effects analysis was conducted to determine the potential effects on air quality under two assessment cases: effects of the Project (i.e., Application Case), and combined effects of the Project and the Fission Patterson Lake South Property (i.e., the RFD Case). The residual effects analysis considered seven measurement indicators. A dispersion modeling approach was used to predict concentrations of CACs (criteria air contaminants) from the Project and the Fission Patterson Lake South Property. Model results were then compared to baseline conditions and the relevant air quality criteria. Air quality is predicted to change from existing conditions due to both the Project and the Fission Patterson Lake South Property.
However, most of the CACs are predicted to remain compliant with provincial guidelines or below the applicable ambient criteria for all Project phases within the RSA. Short-term concentrations of 24-hour PM10 and 24-hour TSP are predicted to be above the guideline but the exceedance frequencies remain low, and the exceedance areas are localized to within a few hundred metres of the maximum disturbance area for the Project. The duration of this effect will be 4 years (construction), 24 years (operation), and 5 years during closure, a total of 33 years. Monitoring and follow-up programs will be used to verify these predictions and the effectiveness of mitigation measures (Page iii-iv, Section 7, EIS).

YNLR understands that air quality standards will be somewhat exceeded in the local area of the Project and supports ongoing monitoring. However, shouldn't consideration be given for offsets given the length of time of these impacts? What will be the effect on the water quality of Patterson Lake?

Noise represented an intermediate component in the EA; the selection was based on the potential for increased noise emissions from the Project to influence wildlife and land users. The noise assessment provided information that was used to support VC assessments such as wildlife and wildlife habitat, Indigenous land and resource use, and other land and resource use. Intermediate components, such as noise, were not assessed for significance. A maximum disturbance area was delineated around the anticipated Project footprint, and an LSA (6,629 ha) and RSA (61,544 ha) were then defined for the noise assessment.

The LSA and RSA are generally composed of forested landscape intermixed with water and wetland features. Given the remote setting of the area, existing noise from anthropogenic (i.e., human-related) features and activities is mainly from Highway 955, mineral exploration, recreation (e.g., hunting, fishing), and Indigenous land and resource use. A baseline field study was undertaken at three locations within the LSA and RSA to measure existing noise levels that may be experienced by wildlife, Indigenous Peoples, and recreational users. The locations were selected to be representative of different settings within the LSA and RSA. Existing noise levels in the LSA and RSA vary based on time of day and local conditions, and existing noise level measurements at all locations in the LSA and RSA are less than noise thresholds outlined in federal and provincial guidelines (Page iv, Section 7, EIS). The measured baseline noise levels were used to determine existing daytime and nighttime noise levels at key receptor locations within the LSA and RSA. Sixteen noise receptor locations were identified through engagement and Joint Working Group meetings with Indigenous Groups (Page v, Section 7, EIS).

An analysis was completed to evaluate Project components and activities and associated effects pathways that could potentially affect noise. The evaluation also considered similar combined effects from the Fission Patterson Lake South Property, the identified RFD for the noise assessment.

Noise emissions from equipment and mining-related activities that would have the potential to increase noise levels during the Project lifespan include (Page v, Section 7, EIS):

- Land clearing
- Site preparation
- Construction of facilities and infrastructure
- Underground mine development
- Power plant operation
- Airstrip traffic
- Milling and underground operations
- Decommissioning and reclamation activities

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As part of the pathways analysis, proposed environmental design features and mitigation measures were considered to determine whether effects to the environment could be avoided or reduced to negligible levels, thereby removing the pathway.

What about the increased noise levels coming from the elevated traffic levels locally and on Highway 955?

A residual effects analysis was conducted to determine the potential effects on noise under two assessment cases: effects of the Project (i.e., Application Case), and combined effects of the Project and the Fission Patterson Lake South Property (i.e., RFD Case). The analysis indicated that noise from the Project and the Fission Patterson Lake South Property is predicted to result in detectable changes from existing conditions. However, cumulative noise levels are predicted to be
of low magnitude, and noise at all receptors considered in this assessment would remain below federal and provincial thresholds (Page vi, Section 7, EIS).

For the purposes of the EA, climate change represents the change in global or regional climate patterns primarily attributed to increased atmospheric concentrations of greenhouse gases (GHGs) (Government of Canada
2021). Assessing GHGs is the most effective method for estimating a project's effect on climate change, as GHGs contribute to the greenhouse effect by absorbing infrared radiation in the atmosphere, increasing temperature, and changing weather patterns (Government of Canada 2015). The climate change assessment considered effects from the Project in the context of provincial and federal GHG emission levels (Page vii, Section 7, EIS).

An analysis was completed to evaluate Project components and activities and associated effects pathways that could potentially contribute to climate change. A specific assessment of other RFDs was not completed as the Application Case provided all required information for the federal government to consider the Project relative to the cumulative effects of historical, existing, and future projects.
As part of the pathways analysis, proposed mitigation measures, policies, and actions were considered to determine whether the Project's GHG emissions and effects to the environment could be avoided or reduced to negligible levels, thereby removing the pathway. While mitigation measures would reduce potential GHG emissions, the Project is expected to emit GHGs throughout Construction, Operations, and Closure through different sources that produce carbon dioxide, methane, and nitrous oxide. Also, given the socio-economic and cultural importance of climate change, and international, federal, and provincial commitments to reduce GHGs, the Project GHG emissions and contributions to climate change were identified as a pathway and carried forward into the residual effects analysis (Page viii, Section 7, EIS).

The residual effects of the estimated maximum annual Project GHG emissions from each Project phase on provincial, national sector, and federal levels were assessed through the comparison to the most recent available emission totals for Saskatchewan and Canada. From this comparison, Project GHG emissions are predicted to have an adverse effect on climate change due to the global and permanent nature of GHG emissions; however, total Project emissions are expected to be low in magnitude, with the Project contributing less than 0.5% of the provincial annual total emissions and less than 0.1% of the federal annual total emissions. Effects to the climate change VC as a result of the Project were assessed to be not significant. The assessment determined that the Project GHG emissions would be of low magnitude and would not meaningfully affect Saskatchewan's and Canada's ability to reach climate change commitments within the current regulatory framework. In addition, the potential effects of the Project's emissions in the overall context of the downstream nuclear power generation were also considered. Due to the low GHG emissions associated with nuclear power generation compared

to coal and natural gas power generation, the downstream effects of the Project are predicted to increase Canada's ability to meet the national emission reduction targets (CNSC 2017)(Page ix, Section 7, EIS).

YNLR supports NexGen's efforts to reduce GHGs through the life of the Project, but recognizes that it will be a net contributor to the problem. However, the longer downstream effects of increased nuclear power generation as a result of the Project should presumably offset these impacts.

Section 8. Hydrogeology (Page 8-1, EIS)

Section 8 of the Environmental Impact Statement (EIS) provides a comprehensive assessment of potential effects of the Rook I Project (Project) on hydrogeology, which includes both groundwater quantity and quality. This assessment included consideration of both potential effects from the Project and cumulative effects from the Project and other reasonably foreseeable developments (RFDs). The hydrogeology assessment used widely accepted scientific practices and incorporated Indigenous and Local Knowledge. Hydrogeology represented an intermediate component in the Environmental Assessment (EA); the selection was based on how changes in groundwater quantity and quality could influence surface water quality and alter aquatic and terrestrial ecosystems, which could in turn affect the biota and people who use these natural resources. Intermediate components, such as hydrogeology, were not assessed for significance (Page i, Section 8, EIS)

YNLR is very concerned about the potential for groundwater and surface water contamination from the Project.

The hydrogeology assessment focused on a local study area (LSA), which is in the area of the Project where direct environmental effects are most likely, and a regional study area (RSA) where cumulative effects may occur. The LSA is defined by the Clearwater River watershed boundary up to the Naomi Lake outlet and covers a surface area of 685 km2. The RSA is defined by the Clearwater River watershed boundary upstream of the confluence with the Mirror River and covers an area of 1,076 km2 (Page i, Section 8, EIS).

Watershed boundaries are a logical way of delineating the extents of the LSA and RSA for groundwater and hydrology assessments.

An analysis was completed to evaluate Project components and activities and associated effects pathways that could potentially affect hydrogeology. The evaluation also considered combined effects from the Fission Patterson Lake South Property, the identified RFD for the hydrogeology assessment. Project activities that would have the potential to affect hydrogeology during the Project lifespan include (Page ii, Section 8, EIS):

- Underground mine development
- Underground operations
- Storage and handling of waste rock, special waste rock (low grade mineralized), and ore
- Storage of cemented paste tailings in the underground tailings management facility (UGTMF)

- Storage of cemented paste backfill in the mined-out underground production stopes

As the pathways associated with these activities do not have the potential to overlap with the pathways of the Fission Patterson Lake South Property, only the potential effects of the Project were considered in the subsequent steps of the assessment process (Page ii, Section 8, EIS).

It is not clear to YNLR why the pathways from both projects lack the potential to overlap? Can groundwater contamination from the Fission LSA reach the NexGen LSA and vice versa?

As part of the pathways analysis, proposed environmental design features and mitigation measures were considered to determine whether effects on the environment could be avoided or reduced to negligible levels, thereby removing the pathway. After mitigation measures were considered, the pathways screening analysis determined that the Project could adversely affect hydrogeology from the following pathways (Page iii, Section 8, EIS):

- Groundwater inflow to the underground mine
- Seepage from the waste rock storage areas (WRSAs) during Construction, Operations, and Closure
- Seepage from the WRSAs after Closure
- Seepage from the UGTMF and backfilled stopes after Closure

Therefore, these pathways were carried forward into the residual effects analysis. A residual effects analysis was conducted to determine the potential effects of the Project on hydrogeology. The residual effects analysis considered three measurement indicators:

- Groundwater elevations
- Groundwater flow directions and rates
- Groundwater quality

During Operations, seepage to the underground mine would result in a depressurization of the surrounding bedrock, which would be observed as a reduction in groundwater elevation at monitoring locations. The extent of the simulated groundwater drawdown in bedrock resulting from the mine dewatering at the end of Operations extends approximately 2 km to the north, 4 km to the south, and 3.5 km in both the east and west directions. The maximum simulated drawdown within the sandstone was estimated to be less than 5 m in the immediate area of the mine workings. During Operations, the groundwater seepage collected from the underground mine would be treated, monitored, and discharged to Patterson Lake. Assuming that all groundwater seepage collected at the underground mine originates as surface infiltration from the Patterson Lake catchment, the resulting long-term net change to the overall water balance of the surface water system was identified to be negligible. Based on the particle tracking modeling, groundwater originating at the UGTMF and production stope backfill source areas is predicted to migrate vertically upward primarily through the fault and shear zones, then laterally through the sandstone, before discharging within Patterson Lake. The approximate advective groundwater travel time from the upper horizon of the mine to the discharge location at Patterson Lake is estimated to be approximately 1,000 years. Seepage from beneath the WRSAs (waste rock storage areas) was predicted to infiltrate vertically to the water table,

then laterally towards Patterson Lake in both the northerly and southerly directions. For the overburden groundwater flow paths, the approximate advective groundwater travel time from the WRSAs to Patterson Lake was 43 years to the north and 77 years to the south (Page iv, Section 8, EIS).

YNLR understands that the impact of the Project on groundwater quantity (distribution) seems to be significant over time and space. The discharge of potentially contaminated water into Patterson Lake from the mine, TMF, and rock storage area is of high concern.

Based on modeling of groundwater quality, the magnitude of the effects was variable and specific to the solute being modeled. Solute-specific effects ranged from negligible effects beyond background values to multiple orders of magnitude above background values. Spatially, these effects were considered to be limited to the groundwater discharge within Patterson Lake. The temporal scale of these effects was long-term, spanning a period from the late stages of Operations to long-term following Closure (i.e., permanent). Changes to groundwater quality that affect surface water quality in the receiving environment were subsequently considered in the surface water and sediment quality assessment (Section 10) (Page iv, Section 8, EIS).

This result is somewhat alarming and raises questions about the long-term ecological health of Patterson Lake, and its connected waters.

Follow-up and monitoring programs would be implemented to monitor for changes in groundwater quantity and quality, including continued monitoring of background wells located upgradient of the Project footprint (Page iv, Section 8, EIS).

YNLR strongly supports this as a result of the groundwater modeling. However, YNLR wonders if a risk assessment and contingency plans should be developed should monitoring eventually reveal larger than expected impacts on the environment.

Section 9. Hydrology (Section 9-1, EIS)

Section 9 of the Environmental Impact Statement (EIS) provides a comprehensive assessment of potential effects of the Project on hydrology. Hydrology is the study of the distribution and circulation of water in the environment. This assessment included consideration of both potential effects from the Project and cumulative effects from the Project and other reasonably foreseeable developments (RFDs). The hydrology assessment used widely accepted scientific practices and incorporated Indigenous and Local Knowledge (Page i, Section 9, EIS). Hydrology represented an intermediate component in the Environmental Assessment (EA); the selection was based on water being the basis of healthy, functioning, and resilient aquatic and terrestrial ecosystems and a conduit for transportation. The hydrology assessment provided information that was used to support valued component (VC) assessments such as fish and fish habitat, vegetation, wildlife and wildlife habitat, as well as the assessments of other intermediate components such as surface water quality, sediment quality, terrain, and soils. Intermediate components, such as hydrology, were not assessed for significance (Page i, Section 9, EIS).

YNLR is very concerned about the potential for streams, rivers, wetlands, and lakes to become contaminated by the Project.

The LSA and RSA for the hydrology assessment was the same as for Hydrogeology (Section 8). The waterbodies in the LSA and RSA are used by humans for navigation, recreation, and fishing, and the river is an important aspect of culture and heritage. An analysis was completed to evaluate Project components and activities and associated effects pathways that could potentially affect hydrology. The evaluation also considered similar combined effects from the Fission Patterson Lake South Property, the identified RFD for the hydrology assessment. Project activities that would have the potential to affect hydrology during the Project lifespan include (Page ii, Section 9, EIS):

- Land clearing
- Site preparation
- Construction of facilities and infrastructure
- Handling of ore and waste rock
- Discharge of treated effluent and treated sewage
- Underground operations
- Removal of infrastructure during decommissioning and reclamation activities

As part of the pathways analysis, proposed environmental design features and mitigation measures were considered to determine whether effects on the environment could be avoided or reduced to negligible levels, thereby removing the pathway. After mitigation measures were considered, the pathways screening analysis determined that the Project could still adversely affect hydrology from the following pathways (Page iii, Section 9, EIS):

- Diversion of site runoff from its natural course and change in drainage areas during the life of the Project
- Activities may affect basin yields, and in turn, affect waterbody water surface elevations (WSEs) and watercourse flows through changes in water balance and hydrological processes in the upstream contributing area during the life of the Project
- Changes in watercourse flows during Construction and Operations that may cause erosion downstream, alter stream channel sediment transport and stream channel parameters, and affect shoreline integrity

Therefore, these pathways were carried forward into the residual effects analysis. A residual effects analysis was conducted to determine the potential effects on hydrology under two assessment cases: effects of the Project (i.e., Application Case), and combined effects of the Project and the Fission Patterson Lake South Property (i.e., RFD Case). The residual effects analysis considered four measurement indicators (Page iii, Section 9, EIS):

- Waterbody WSE (water surface elevation)
- Watercourse flow rate;
- Stream channel parameters
- Fluvial sediment transport

In the Application Case, the Project would result in a net discharge of water to Patterson Lake from Construction through the Active Closure Stage, which is predicted to result in small but

undetectable increases in WSEs and watercourse flow rates in the receiving environment. The magnitude of changes to WSEs and flows along the Clearwater River are predicted to be well within the range of natural seasonal and annual variability and are not expected to affect navigation. In the RFD Case, increases are expected in WSEs and in watercourse flow rates on the Clearwater River downstream of Patterson Lake. As with the Application Case, the magnitude of these effects is expected to be well within the range of seasonal and annual variability.

For both the Application Case and the RFD Case, increases to watercourse flow rates are predicted to result in both increased erosion at the upstream reach and increased sedimentation at downstream reaches. However, all assessment cases resulted in negligible changes in net transport of sediment for the Clearwater River reach between Patterson and Forrest Lake, compared to existing conditions.

Small changes in stream channel parameters are anticipated in both the Application Case and the RFD Case due to the increased mean annual daily flow downstream of the Project. However, in the RFD Case, there is predicted to be an increase in width and depth for the Clearwater River below Patterson Lake. In all scenarios, these changes are within the range of natural variation and are not expected to be large enough in magnitude to change how the watercourses are used by humans for navigation (Pages iii-iv, Section 9, EIS).

The predicted impacts to surface water hydrology appear to be negligible which is reassuring. However, the potential long-term impact of the groundwater disruption (Section 8) on surface waters still requires clarification. Surface water quality is also a question at present (Section 10).

Section 10. Surface Water Quality and Sediment Quality (Page 10-1, EIS)

Section 10 of the Environmental Impact Statement (EIS) provides a comprehensive assessment of potential effects of the Rook I Project (Project) on surface water quality and sediment quality. This assessment included consideration of both potential effects from the Project and cumulative effects from the Project and other reasonably foreseeable developments (RFDs). The surface water quality and sediment quality assessment used widely accepted scientific practices and incorporated Indigenous and Local Knowledge. Surface water quality and sediment quality represented intermediate components in the Environmental Assessment (EA); the selection was based on how changes in surface water quality and sediment quality could influence the health of fish, plants, wildlife, and the people that use natural resources. The surface water quality and sediment quality assessment provided information that was used to support valued component (VC) assessments such as fish and fish habitat, vegetation, wildlife and wildlife habitat. Intermediate components, such as surface water quality and sediment quality, were not assessed for significance (Page i, Section 10, EIS).

The maintenance of surface water quality is a very high priority for YNLR.

The LSA and RSA were delineated the same as for the groundwater and hydrology assessments. The conditions for surface waterbodies in the LSA were determined from baseline studies conducted between 2015 and 2020. The water quality of the waterbodies and watercourses in the LSA is consistent with typical lakes located in the Canadian Shield in that the water quality:

- Exhibits high water clarity, due to low amounts of total suspended solids
- Has near-neutral pH
- Has wide-ranging surface water temperatures that vary seasonally

In Patterson Lake, there was notable variability in sediment composition between basins and study years. Generally, sediment concentrations of metals and radionuclides in waterbodies in the LSA were low and below environmental thresholds. An analysis was completed to evaluate Project components and activities and associated effects pathways that could potentially affect surface water quality and sediment quality. The evaluation also considered similar combined effects from the Fission Patterson Lake South Property, the identified RFD for the surface water quality and sediment quality assessment. Project activities that would have the potential to affect surface water quality and sediment quality during the
Project lifespan include (Page ii, Section 10, EIS):

- Handling and storage of waste rock and special waste rock and ore
- Runoff and seepage from the waste rock storage areas (WRSAs)
- Groundwater flow from the underground tailings management facility (UGTMF) – see Section 8
- Discharge of treated effluent
- Discharge of treated sewage

Similar activities that could affect surface water quality and sediment quality would be expected to occur for the Fission Patterson Lake South Property, with the exception of potential effects associated with a UGTMF, as the Fission Patterson Lake South Property has been designed with an above-ground tailings management facility. As part of the pathways analysis, proposed environmental design features and mitigation measures were considered to determine whether effects on the environment could be avoided or reduced to negligible levels, thereby removing the pathway (Page ii, Section 10, EIS).

It seems that the potential cumulative effects of the Fission TMF has been dismissed because it is aboveground. However, doesn't it still have the potential to contaminate surface waters irrespective of where it's positioned?

After mitigation considerations, it was identified that the Project could still adversely affect surface water quality from the following pathways (Page iii, Section 10, EIS):

- Deposition of fugitive dust emissions (e.g., particulate matter, metals, radionuclides) on local and regional waterbodies and watercourses
- Deposition of criteria air contaminants emissions (e.g., particulate matter, sulphur, nitrogen oxides) on local and regional waterbodies and watercourses
- Direct discharge of treated effluent during Construction, Operations, and Closure to Patterson Lake
- Direct discharge of treated sewage during Construction, Operations, and Closure to Patterson Lake

- Seepage from the WRSAs during Construction and Operations to groundwater that may flow into Patterson Lake
- Runoff and seepage from the WRSAs and groundwater flow from the UGTMF to Patterson Lake after Closure

Only surface water quality pathways were carried forward into the residual effects analysis as no pathways were identified for potential sediment quality effects.

A residual effects analysis was conducted to determine the potential effects on surface water quality under two assessment cases: effects of the Project (i.e., Application Case), and combined effects of the Project and the Fission Patterson Lake South Property (i.e., RFD Case). The focus of the surface water assessment for the Project was to predict changes in surface water quality in the receiving environment from direct discharges from the Project, deposition of Project air emissions during the Project lifespan, and post-closure Project effects in the far future (e.g., runoff from the reclaimed Project footprint, groundwater inflows).

The residual effects analysis for surface water quality considered three measurement indicators (Page iii, Section 10, EIS):

- Constituent concentrations associated with water quality (i.e., those constituents that apply to the protection to aquatic and terrestrial life)
- Drinking water quality (i.e., those constituents that apply to the suitability of drinking water)
- Productivity status (i.e., the ability of a waterbody to support an aquatic food web)

During the lifespan of the Project in the Application Case and the RFD Case, overall COPC (constituents of potential concern) concentrations would increase locally, though the predicted concentrations would not result in any threshold exceedances in any measurement indicators during the Project lifespan. Similarly, air deposition effects during the Project lifespan in the Application Case and RFD Case would also result in minor, localized changes to the surface water COPC concentrations; however, such changes in COPC concentrations would not result in any COPC threshold exceedances.

In the Application Case and RFD Case far-future projections, seepage from the potentially acid generating (PAG) WRSA would cause a long-term continuous period of extremely slow migration of COPC metals and radionuclides to the receiving environment via shallow groundwater. The COPC concentrations in the far-future projection would be greater than peak concentrations for many of the COPCs modeled during the Project lifespan, because active water treatment was not assumed to continue after Closure. Under this scenario, concentrations of cobalt and copper were predicted to exceed surface water quality thresholds (Page iv, Section 10, EIS).

YNLR is very concerned with the far-future, cumulative contamination prediction for Patterson Lake.

To minimize the potential for effects to the receiving environment (e.g., aquatic habitat), source control measures would be implemented for the PAG WRSA. This mitigation would be expected

to result in reductions in the mass loading of cobalt and copper, and other COPCs, to Patterson Lake.

This statement does not assuage YNLR's concerns. In addition, the long-term contamination from the NexGen and Fission TMFs seems to be unresolved.

The Environmental Protection Program, Environmental Monitoring Plan, Effluent Monitoring Plan, and associated environmental monitoring would be implemented to verify effects predictions and effectiveness of mitigation on protection of the aquatic environment, identify unanticipated effects, and apply adaptive management (Page iv, Section 10, EIS).

YNLR believes this is absolutely critical given the contaminant predictions and expects to be consulted as a result. YNLR also expects the monitoring programs to be open, transparent, and statistically robust.

Section 11. Fish and Fish Habitat (Page 11-1, EIS)

Section 11 of the Environmental Impact Statement (EIS) provides a comprehensive assessment of potential effects of the Rook I Project (Project) on fish and fish habitat. This assessment included consideration of both potential effects from the Project and cumulative effects from the Project and other reasonably foreseeable developments (RFDs). The fish and fish habitat assessment used widely accepted scientific practices and incorporated Indigenous and Local Knowledge (Page i, Section 11, EIS).

The assessment of potential effects on fish and fish habitat was informed by the assessments completed for air quality, hydrogeology, hydrology, and surface water quality, as well as the results of the Project ecological risk assessment (EcoRA). The fish and fish habitat assessment provided information that was used to support other VC assessments such as wildlife and wildlife habitat, human health, Indigenous land and resource use, and other land and resource use (Page i, Section 11, EIS).

Assessment of the VC's selected (whitefish, lake trout, northern pike and walleye) included biological effects in a number of categories (hydrology, surface water quality, etc.). However, the EIS does not take into account changes in harvest pressure on these species due to increased human activity and access as a result of the Project.

Effects on aquatic biodiversity were evaluated based on the completed fish VC assessment. The EcoRA and aquatic health assessment results indicated that, after Closure and in the far future, limited effects would be possible on individual taxa or species that may be sensitive to elevated copper concentrations in Patterson Lake. However, based on the predicted level of exposure and limited spatial extent of elevated copper concentrations, population-level effects are not expected to occur. Therefore, the predicted effects of the Project and RFDs on aquatic biodiversity were considered negligible (Page v-vi, Section 11, EIS).

Effects on biodiversity were based on the completed fish VC assessment and were therefore determined to be negligible. The selected VC's while appropriate for fish use and sustainability may not be at all useful as indicators for overall biodiversity in the affected water bodies.

The weight of evidence from the analysis predicts that changes to the habitat availability, habitat distribution, and survival and reproduction of fish VCs (i.e., lake trout, lake whitefish, walleye, northern pike) in the RSA would be within the resilience and adaptability limits for these VCs. The residual effects on fish VCs in the Application Case are predicted to be not significant. The incremental and cumulative effects resulting from the Project, previous and existing developments, and the Fission Patterson Lake South Property on fish and fish habitat are also predicted to be not significant (Page vi, Section 11, EIS).

Again, the determination and assumptions leading to the fish species and habitat effects assessment are identified as "not significant". A broader range of factors (such as increased harvest levels) in fish management should be taken into account in developing this conclusion.

Indigenous and Local Knowledge included in the assessment of fish and fish habitat was shared by potentially affected First Nations and Métis Groups (collectively referred to as Indigenous Groups) and local priority area (LPA) community members through the Project engagement process. The overall approach and methods for the incorporation of Indigenous and Local Knowledge into the EA is discussed in detail in Section 3, Indigenous and Local Knowledge. Issues and concerns related to fish and fish habitat raised by Indigenous Groups and LPA community members, and how these comments were addressed, are summarized in Appendix 2B, Summary of Indigenous Concerns, and identified and addressed in this assessment, where applicable (Page 11-8, EIS).

Incorporating indigenous and local knowledge with scientific information provides a much more complete view of the issues of significance in the EIS. NexGen's report is to be complimented for taking the time to obtain and utilize the TK.

Fishing plays an important role in the relationship Indigenous Groups have with their traditional lands, especially in their connection to the lakes and rivers in the region (TSD II: BRDN). Their long history of fishing in the same lakes and rivers over generations contributes to sense of place, which is "intricately connected to land and place", is tied to people's attachment and affiliation with the land, and is an expression of identity and familiarity (TSD II: BNDN; TSD III: BRDN). Sense of place "depends on particular places… along with their particular features (physical, social, and symbolic) and the values and activities these features foster and enable"
(TSD II: BNDN). Indigenous Groups and LPA community members indicated that land users target a variety of fish species in lakes in the area of the Project (Table 11.2-1) (Page 11-13, EIS):

- The CRDN identified grayling, (Arctic grayling [Thymallus arcticus]), jackfish (northern pike [Esox lucius]), herring (cisco; Coregonus artedi), lake trout (Salvelinus namaycush), ling cod (burbot [Lota lota]), pickerel (walleye [Sander vitreus]), suckers (white sucker [Catostomus

commersonii] and/or longnose sucker[Catostomus catostomus]), and minnows as species that are considered important to community members (TSD V.1: CRDN; TSD V.2: CRDN)

- Members of the MN-S identified all manner of fish, including trout, whitefish, jack (jackfish, or northern pike), pickerel, suckers, burbot, and catfish as being consumed (TSD IV: MN-S; MN-S-JWG 2019a)
- Members of the BNDN pursue and rely on a variety of fish species, including lake trout, whitefish (lake whitefish [Coregonus clupeaformis]), jackfish, pickerel (walleye), suckers, and mariah (burbot) (TSD II: BNDN; BNDN-JWG 2019)
- Members of the BRDN described fishing for lake whitefish, lake trout, jackfish, pickerel, and perch (yellow perch [Perca flavescens]), and highlighted the importance of Patterson Lake as providing high quality fishing, particularly for species such as lake trout and lake whitefish (TSD III: BRDN; BRDN-JWG 2019a; BRDN-JWG 2020)
- The YNLR identified lake trout, whitefish, northern pike, suckers, and pickerel as species that are considered important to community members (TSD VI: YNLR)

Each discussion with community representatives demonstrated the historical, cultural and importance of fish as food. Note that the YNLR identified suckers as being important to community members. Despite this, these species (longnose and white suckers) were not identified as VCs.

Monitoring programs are proposed to address the uncertainties associated with the effects predictions and to evaluate the performance of mitigation. In general, monitoring is used to verify the effects predictions. Monitoring is also used to identify any unanticipated effects and to support the implementation of adaptive management to limit these effects. Typically, monitoring includes one or both of the following categories that may be applied during the Project lifespan (Page 11-42, EIS:

- Regulatory compliance monitoring: monitoring activities, procedures, and programs undertaken to confirm the implementation of approved design standards, mitigation and conditions of approval, and NexGen commitments (e.g., inspecting the installation of a silt fence, monitoring the quality of water discharge from the Project)
- Follow-up monitoring: programs designed to test the accuracy of effects predictions, reduce or address uncertainties, determine the effectiveness of mitigation, or provide appropriate feedback to operations for modifying or adopting new mitigation designs, policies and practices (e.g., implementation of adaptive management). Results from these programs can be used to increase the certainty of effect predictions in future EAs

The EIS suggests that "adaptive management measures may also be proposed to address uncertainties…". The implementation of long-term monitoring being very important and being requested by indigenous groups should also include an adaptive management process.

The results of field studies in Patterson Lake were corroborated by Indigenous and Local Knowledge shared by Indigenous Groups and LPA community members. The CRDN, BNDN, BRDN and MN-S identified Patterson Lake as an important area for fishing (TSD II: BNDN; TSD III: BRDN; TSD IV: MN-S; TSD V.1: CRDN; TSD V.2:

CRDN). The YNLR identified Patterson Lake as an important area for fish (TSD VI: YNLR). The CRDN noted that the Patterson Lake area has an abundance of resources and is intensively used by community members for harvesting. The BNDN noted that Patterson Lake supports numerous key fish species of historically high quality and large size (TSD II: BNDN). Species that are fished in Patterson Lake include lake trout (BRDN-JWG 2020; TSD II: BNDN; NexGen 2019), whitefish (TSD II: BNDN), walleye (TSD II: BNDN; NexGen 2019), suckers (TSD II: BNDN) and northern pike (TSD II: BNDN; NexGen 2019) (Page 11-61, EIS).

Patterson Lake was identified as being intensively used by community members for fish harvesting. This lake will continue to receive increasing fish harvest pressure with the increased number of individuals associated with the mining activity near the lake coupled with easy road access.

Morphology and catch data for walleye based on fishing efforts in the LSA and RSA are presented in Table 11.3-5. A total of 336 walleye were captured during baseline sampling in the LSA or RSA. However, a large majority of the walleye documented were captured in the Clearwater River above Patterson Lake (n = 298; Table 11.3-5). Of the 336 walleye captured, 109 were captured in Patterson Lake. In Patterson Lake, walleye ranged in size from 26.6 cm to 66.5 cm for length and 140 g to 2,720 g for weight (Table 11.3-5) (Page 11-69, EIS).

There appears to be a discrepancy between Table 11.3-5 (Page 11-70, EIS) which identified Patterson Lake Walleye at N = 10 and identification within the above text of Patterson Lake walleye n=109?

Table 11.4-1. Potential Effects Pathways for Fish and Fish Habitat (Page 11-73, EIS)

Table 11.4 -1 describes in some detail "Environmental Design Features and Mitigation" but it does not mention participation in management and harvest (recreational and commercial), which should be addressed at the onset of the predicted increased human activity in the Patterson Lake area. This will be one of the most important management tools that can be implemented to sustain the local fish populations.

Blasting for the Project would occur in conjunction with development of the underground mine and UGTMF at the locations of the production and exhaust shafts. All Project blasting would occur on land and not in Patterson Lake. The minimum separation distance between Patterson Lake and the anticipated location of Project blasting is 345 m; however, much of the blasting activity would occur at distances typically greater than away 450 m (UGTMF blasting) to 750 m (production blasting) from Patterson Lake. Peak pressure level and peak particle velocity vibration levels were predicted for Project blasting at the nearest anticipated location to Patterson Lake. Blasting activities would be located at distances greater than the DFO recommended setback distances referenced above (TSD X, Vibration Effects Analysis Report), and thus avoid harm to fish. If these setback distances are approached, site-specific operating mitigations could be implemented, as required, to protect fish. Thus, survival and reproduction rates of fish in nearby surface waters would remain unchanged as a result of the use of explosives during Project Construction and Operations. Therefore, the effect of pressure changes and vibrations from blasting on fish is considered as no pathway because blasting

would occur at a considerable distance from Patterson Lake. As a result, there are no predicted residual effects on lake trout, lake whitefish, walleye, and northern pike survival and reproduction, and this pathway was not carried forward in the assessment (Page 11-79,80, EIS).

While the EIS surmises that on site blasting is being carried out at a safe distance from Patterson Lake and therefore "there are no predicted residual effects on the VC's", monitoring should be carried out to confirm that this is indeed accurate considering that there were local concerns identified by YNLR (Page 11-79, EIS).

Through the described mitigation, the loading of phosphorus from Project activities and discharge to Patterson Lake is predicted to result in a minimal increase in TP concentration in the aquatic receiving environment with no changes to lake trophic status expected for any of the water bodies assessed. An increase in TP concentrations may result in minor changes to primary productivity and in potentially negligible and non-measurable effects on the productivity of lower trophic level consumers (e.g., zooplankton and benthic invertebrates). Effects on the productivity of fish, particularly piscivorous, upper trophic level consumers, are not expected. Therefore, this pathway is expected to have negligible effects on fish habitat quality and, survival and reproduction of fish VCs, and was not carried forward for further assessment (Page 11-102, EIS).

This section states that "An increase in TP (total phosphorus) may result in minor changes to primary productivity with virtually no effects on upper-level consumers" (i.e. piscivorous). Adding additional oligotrophic species such as suckers to monitoring programs would therefore be prudent.

Through the use of appropriate design, mitigation, and management practices, effects from installation of in-water developments are expected to have negligible effects on fish VCs. Overall, the physical habitat loss associated with these structures is predicted to result in a small change to habitat availability for fish VCs in
Patterson Lake and no change to distribution relative to existing conditions. If required by DFO, fish habitat lost or altered because of the developments would be offset with habitat created, restored, or enhanced. Therefore, this pathway was classified as a secondary pathway and not carried forward for further assessment (Page 11-109, EIS).

"…fish habitat lost or altered because of the development would be offset with habitat created, restored or enhanced." Restoring habitat is technically not an offset although it is important as part of the mitigation.

Development of the Project would result in an increase in the density of people in the area due to employees and contractors during Construction, Operations, and the Active Closure Stage. New roads would also be developed on the Project site, which would improve access to Patterson Lake for employees and contractors who may wish to fish recreationally during their time off shift while on site. The increase in density of people around the area of the Project, combined with the development of new site roads that improve access to Patterson Lake, could increase recreational angling in the area and, therefore, increase rates of fish injury or

mortality. The survival of fish VCs may be adversely affected due to an increase in harvesting of fish, or as a result of incidental injuries or mortality related to catch-and-release fishing. NexGen is exploring the possibility of implementing a policy that would prohibit or restrict fishing by employees and contractors on the Project site and along the existing access road while on rotation or residing in the camp. As NexGen plans to prioritize employment from local communities where possible, engagement with these communities would be undertaken to gather feedback on whether a no fishing policy is a desired mitigation to reduce effects on harvested fish populations from increased fishing pressure. However, for the purpose of the effects assessment, and to provide a conservative evaluation of potential effects on fish VCs, it was assumed that employees and contractors would be permitted to fish recreationally during their time off while on site, as well as along the existing access road Page 11-114, EIS).

NexGen "exploring the possibility of implementing a policy that would prohibit or restrict fishing" while laudable, would have a minimal effect on fish harvest. For example, the company cannot remove indigenous rights to fish. The EIS recognizes that changes to public access and the increased density of people may affect the viability of fish populations. It is therefore important for the company, indigenous representatives, and the Provincial Government to review and alter season and catch limits in the area at the onset of the project.

Estimated HQs for the far future were predicted to be below the benchmark of 1 for all COPCs, except for copper in the Application Case and reasonable upper bound scenario. Although cobalt concentrations were predicted to exceed surface water quality guidelines (Section 11.5.2.1), estimated HQs for cobalt were less than 1 in all assessment cases and for all aquatic receptors; therefore, cobalt was not considered further. The maximum HQ for copper was predicted to exceed 1 in Patterson Lake North Arm – West Basin for benthic invertebrates, zooplankton, and forage fish (represented by lake whitefish in the EcoRA) in the far future for the Application Case and the reasonable upper bound scenario. Additionally, the estimated HQ for copper was predicted to exceed 1 in Patterson Lake South Arm for the same three receptors in the far future in the reasonable upper bound scenario. All other modeled water bodies in the receiving environment had predicted HQs below 1 for the Application Case and reasonable upper bound scenario. There were no predicted exceedances of the 9.6 mGy/d radiation dose benchmark for aquatic biota (UNSCEAR 2008; CSA Group 2012) for the far future (Page 11-125, EIS).

The EIS recognizes that copper concentrations will exceed minimum acceptable levels during the life of the project; however, analysis indicated that there would be minimal effects on aquatic populations and communities. The only mitigation measure to affect this outcome would be to limit the copper concentration levels, if this is possible.

Overall, the predicted effects of the Project and RFDs on aquatic biodiversity were considered to be negligible. As exposure of aquatic biota to elevated copper concentrations would be restricted to Patterson Lake North Arm – West Basin, the geographic extent of effects was considered local. The duration and reversibility of the predicted effects would be permanent and not reversible. The probability of occurrence was characterized as possible, meaning that effects are unlikely, but may occur (Page 11-141, EIS).

Overall predicted effects on aquatic biodiversity considered as negligible neglects the cumulative effects of other mine sites such as Fission Uranium even though this factor has been identified in the EIS.

Overall, the predicted effects on fish habitat availability and survival and reproduction are expected to be negligible to low in magnitude and likely not distinguishable from natural background variability. Exposure of aquatic biota to maximum copper concentrations would be limited spatially to the North Arm – West Basin of Patterson Lake and temporally limited to dry climate years when there is a lower natural runoff to the lake. The predicted effects are considered possible, meaning that the changes may occur but are not likely permanent in duration and are irreversible. The effects of the Fission Patterson South Property on surface water quality during the far future are not expected to result in any changes to these effects predictions for fish VCs (Page 11-148, EIS).

Analysis of the residual effects on fish, particularly the VC's is concluded to be "not distinguishable from natural background variability" without any in-depth analysis of increased and persistent fish harvest due to the major changes in public access.

Section 12. Terrain and Soils (Page 12-1, EIS)

Section 12 of the Environmental Impact Statement (EIS) provides a comprehensive assessment of potential effects of the Rook I Project (Project) on terrain and soils. This assessment included consideration of both potential effects from the Project and cumulative effects from the Project and other reasonably foreseeable developments (RFDs). The terrain and soils assessment used widely accepted scientific practices and incorporated Indigenous and Local Knowledge.

The local study area (LSA) for the terrain and soils assessment is within the Firebag Hills Landscape Area of the Mid-Boreal Upland Ecoregion of the Boreal Plain Ecozone of Saskatchewan (Acton et al. 1998). No unique terrain or soil features were identified within the LSA, much of which has been burned by forest fires in the past 40 years. Fire is the primary disturbance factor in the region. Terrain in the LSA is primarily undulating to hummocky upland landscape. The slope of the local terrain ranges from relatively level to slopes of 25% or greater, with an average slope of about 7%. The LSA is composed of four terrain units, which are approximately distributed as follows (Page i, Section 12, EIS):

- 79% glaciofluvial deposits
- 14% water
- 4% fen peat (i.e., Organic)
- 4% anthropogenic (i.e., human-derived) disturbance

Project activities that would have the potential to affect terrain and soils during the Project lifespan include (Page ii, Section 12, EIS):

- Land clearing
- Site preparation
- Construction of facilities and infrastructure

- Handling of ore and waste rock
- Changes to air and water quality
- Other supporting mining construction, operation, and decommissioning and reclamation activities

With no overlap with Fission, no cumulative effects were assessed. As part of the pathways analysis, proposed environmental design features and mitigation measures were considered to determine whether effects to the environment could be avoided or reduced to negligible levels, thereby removing the pathway. After mitigation measures were considered, the pathways screening analysis determined that the alteration of soil and terrain conditions (i.e., quantity, quality, and distribution) could still adversely affect soil productivity and the types of ecosystems that could be reclaimed on the landscape. Therefore, this pathway was carried forward into the residual effects analysis. A residual effects analysis was conducted to determine the potential effects of the Project on terrain and soils under two assessment cases: effects of the Project (i.e., Application Case), and combined effects of the Project and the Fission Patterson Lake South Property (i.e., RFD Case). The residual effects analysis considered three measurement indicators (Page iii, Section 12, EIS):

- Quantity and distribution of terrain units
- Quantity and distribution of soil map units
- Soil quality, which focused on soil suitability for reclamation

The residual effects analysis followed a precautionary approach by using an assessment area, referred to as the maximum disturbance area, which assumes disturbance of an area approximately four times larger than the currently anticipated Project footprint. During the Application Case, 897.8 ha of new disturbance would be added to the 82.2 ha of existing disturbance in the maximum disturbance area for a total area of 980 ha. Effects on terrain and soil map units covered with permanent facilities of the Project (e.g., waste rock storage areas) would be irreversible. The effects from disturbance on terrain and soil map units not covered by permanent facilities would be reversible over a long-term duration.

YNLR understood that the waste rock would be put back underground as part of reclamation, so how can the impact on the waste rock storage areas be irreversible?

Section 13. Vegetation (Page 13-1, EIS)

Section 13 of the Environmental Impact Statement (EIS) provides a comprehensive assessment of potential effects of the Rook I Project (Project) on vegetation, including ecosystems and traditional use plants. This assessment included consideration of both potential effects from the Project and cumulative effects from the Project and other reasonably foreseeable developments (RFDs). The vegetation assessment used widely accepted scientific practices and incorporated Indigenous and Local Knowledge. Three vegetation ecosystems (i.e., upland ecosystems, wetland ecosystems, and riparian ecosystems) and traditional use plants represented valued components (VCs) in the Environmental Assessment (EA). The assessment of vegetation ecosystems and traditional use plants provided information that was used to

support VC assessments such as wildlife and wildlife habitat, human health, Indigenous land and resource use, and other land and resource use (Page i, Section 13, EIS).

YNLR believes that the use of only three vegetation ecosystem VCs is too coarse an approach that may miss many important finer elements. For example, woodland caribou are dependent on older seral stages of coniferous forest for lichens as food. Were the three ecosystems subdivided any further to enable more refined impact assessments? Isn't it possible to miss potential impacts by not doing so?

The local study area (LSA; 2,832 ha) and the anticipated Project footprint (228 ha) are located within the Mid-Boreal Upland Ecoregion of the Boreal Plain Ecozone of Saskatchewan (Acton et al. 1998). The regional study area (RSA) of 107,491 ha overlaps the transition between the Boreal Shield and Boreal Plain ecozones; Patterson Lake also overlaps this ecozone transition. The existing amounts of natural and human ecosystems follow:

Ecosystem Type	LSA	RSA
Upland	77%	70%
Wetland	20%	30%
Human	4%	<1%

Riparian ecosystems, which were identified as a subset of both upland and wetland ecosystems, cover 7% and 9% of the LSA and RSA, respectively. Over the last 40 years, 65,296 ha (61%) of the RSA has been burned in historical fires. However, historical fire extents overlap each other within the RSA; therefore, the amount of area within the RSA classified as burned is 61,997 ha (58%).

An analysis was completed to evaluate Project components and activities and associated effects pathways that could potentially affect vegetation. The evaluation also considered similar combined effects from the Fission Patterson Lake South Property, the identified RFD for the vegetation assessment. Project activities that would have the potential to affect vegetation during the Project lifespan include Page ii, Section 13, EIS):

- Land clearing
- Site preparation
- Construction of facilities and infrastructure
- Handling of ore and waste rock
- Changes to water and air quality
- Other supporting mining construction, operation, and decommissioning and reclamation activities

YNLR is very concerned about the introduction of invasive plant species into the forest ecosystems by the increased level of human disturbance.

As part of the pathways analysis, proposed environmental design features and mitigation measures were considered to determine whether effects on the environment could be avoided or reduced to negligible levels, thereby removing the pathway. After mitigation measures were considered, the pathways analysis determined that many of the potential pathways from the Project to the environment could be removed. However, it was identified that the Project could still adversely affect vegetation from the following pathways:

- Direct loss, alteration, and fragmentation of upland, wetland, and riparian ecosystems and traditional use plants
- Alteration of the final terrain, soil conditions, and/or plant species composition, which could change the types of ecosystems and traditional use plants that can be reclaimed on the landscape and adversely affect ecosystem availability, distribution, and condition

Therefore, these pathways were carried forward into the residual effects analysis. A residual effects analysis was conducted to determine the potential effects on vegetation ecosystems and traditional use plants under two assessment cases: effects of the Project (i.e., Application Case), and combined effects of the Project and the Fission Patterson Lake South Property (i.e., RFD Case). For upland, wetland, and riparian ecosystems, three measurement indicators were considered Page iii, Section 13, EIS):

- Ecosystem availability
- Ecosystem distribution
- Ecosystem condition.

For traditional use plant species, two measurement indicators were considered:

- Traditional plant habitat availability
- Traditional plant distribution

The residual effects analysis followed a precautionary approach by using an assessment area, referred to as the maximum disturbance area, which assumed disturbance of an area approximately four times larger than the currently anticipated Project footprint. In the RFD Case, a precautionary approach was used by applying a maximum disturbance area to the Fission Patterson Lake South Property using the same assumptions made for the Project; this approach resulted in a maximum disturbance area approximately six times larger than the footprint presented in the Fission (2019) prefeasibility study. Similar conservatism was incorporated into the overlapping temporal boundaries for the Project and RFD. The assessment assumed the period of residual effects from the Fission Patterson Lake South Property would completely overlap with similar effects associated with the Project for a maximum duration of 95 years.

YNLR believes that these residual effects assessment areas following application of the precautionary approach are reasonable.

Upland ecosystems would be expected to experience the following residual effects Page iii, Section 13, EIS):

- The Project is predicted to contribute to a loss in availability of approximately 868 ha of upland ecosystems, which represents 1.2% of upland ecosystems in the RSA (i.e., low magnitude)

- The Fission Patterson Lake South Property activities are predicted to contribute an incremental loss of 1,450 ha of upland ecosystems availability in the RSA
- In combination, the Project, Fission Patterson Lake South Property, and existing anthropogenic disturbance (e.g., Highway 955, seismic lines) would account for 2,390 ha (3.1%) of disturbance across upland ecosystem types in the RSA (i.e., low magnitude)

Despite the loss of upland ecosystems that would occur as a result of the Project and the Fission Patterson Lake South Property, the distribution of most upland ecosystems would remain abundant and well connected across the RSA.

If these upland ecosystems are either lost permanently or for several decades, YNLR believes that there should be some sort of no net loss offset applied, as it is for fish habitat under federal law (see before and below).

Wetland ecosystems would be expected to experience the following residual effects Page iv, Section 13, EIS):

- The Project is predicted to contribute to a loss in availability of approximately 28 ha of wetland ecosystems (i.e., less than 0.1% of the RSA), which would be limited to the Project's maximum disturbance area (i.e., low magnitude)
- Cumulatively, the Project and the Fission Patterson Lake South Property are predicted to contribute to a loss in availability of approximately 56 ha (i.e., 0.1% of the RSA) of wetland ecosystems (i.e., low magnitude)

Following Decommissioning and Reclamation (i.e., Closure), it is anticipated that wetland ecosystems would be reclaimed to the extent possible in an attempt to achieve no net loss of wetland functions, consistent with the guideline of the Federal Policy on Wetland Conservation (Government of Canada 1991). Although the establishment of functioning wetland ecosystems following the Active Closure Stage was considered possible, restoration of wetland species composition and ecological function similar to the wetland ecosystems observed under existing conditions would be unlikely. As such, the loss of all wetland ecosystems was conservatively assumed to be permanent.

This statement is somewhat confusing. Will lost wetlands be restored or not? If the wetland loss is permanent or long lasting, YNLR believes that a no net loss offset should be applied.

Riparian ecosystems would be expected to experience the following residual effects Page iv, Section 13, EIS):

- The Project is predicted to contribute to a loss in availability of approximately 40 ha of riparian ecosystems (i.e., 0.4% of the RSA), which would be limited to the Project's maximum disturbance area (i.e., low magnitude)
- Cumulatively, the Project and the Fission Patterson Lake South Property are predicted to contribute to a loss in availability of approximately 103 ha (i.e., 1.1% of the RSA) of riparian ecosystems (i.e., low magnitude).
- The majority of Project infrastructure would be set back from Patterson Lake, and the final disturbance with riparian ecosystems would be minimized

Despite the potential for fragmentation due to losses from the Project and the Fission Patterson Lake South Property, most riparian-associated wetland ecosystems would remain abundant and well connected across the RSA. The loss of riparian ecosystems in the RSA would result in localized minor changes in riparian distribution around Patterson Lake, and these effects were assumed to be long term for upland ecological land classification (ELC) units and permanent for wetland ELC units within riparian ecosystems.

What is the distance of the riparian set back? How was it arrived at? Again if riparian loss is permanent or long lasting, YNLR believes that a no net loss offset should be applied.

Under existing conditions, the total amount of traditional use plant habitat within the LSA is 721.6 ha (25.5%) and within the RSA is 24,988 ha (23.2%). Traditional use plants would be expected to experience the following residual effects (Page v, Section 13, EIS):

- The Project is predicted to contribute to a loss in availability of approximately 282 ha (1.1% of the RSA) of traditional use plant habitat, which would be limited to the Project's maximum disturbance area (i.e., low magnitude)
- Cumulatively, the Project and the Fission Patterson Lake South Property are predicted to contribute to a loss in availability of approximately 732 ha (i.e., 2.9% of the RSA) of traditional use plant habitat (i.e., low magnitude)
- Traditional use plant habitat is predicted to remain abundant across the RSA

Again, YNLR believes that permanent losses in traditional plant use habitats should be offset in some manner.

The Environmental Protection Program, Environmental Monitoring Plan, and associated environmental monitoring would be implemented to verify effects predictions and effectiveness of mitigation on vegetation, identify unanticipated effects (i.e., manage the residual uncertainty in the effects prediction), and apply adaptive management, if required. A noxious and nuisance weeds follow-up study would be carried out for weed management to monitor the establishment of designated weed species within the disturbance area and apply appropriate mitigation to avoid the unintended spread of such species.

YNLR believes that such monitoring is critical in order to maintain the ecological health of the forest.

Section 14. Wildlife and Wildlife Habitat (Page 14-1, EIS)

Section 14 of the Environmental Impact Statement (EIS) provides a comprehensive assessment of potential effects of the Rook I Project (Project) on wildlife and wildlife habitat. This assessment included consideration of both potential effects from the Project and cumulative effects from the Project and other reasonably foreseeable developments (RFDs). The wildlife and wildlife habitat assessment used widely accepted scientific practices and incorporated Indigenous and Local Knowledge.

Eleven wildlife species represented valued components (VCs) in the Environmental Assessment (EA). These eleven wildlife and wildlife habitat VCs included (Page i, Section 14, EIS):

- Woodland caribou
- Moose
- Grey wolf
- Black bear
- Beaver
- Little brown myotis
- Olive-sided flycatcher
- Rusty blackbird
- Common goldeneye
- Mallard
- Canadian toad

The selection of VCs was based on several factors including, but not limited to, the potential level of interaction between the Project and the VCs, the sensitivity of the VCs to potential effects from the Project, species conservation status or concern, and feedback from Indigenous Groups and local communities.

YNLR has concerns about the breadth and composition of these wildlife VCs, which are essentially indicators of ecological health with respect to the impacts of the Project. Eleven species represent a very tiny proportion of the total number of wildlife species present in the boreal forest, especially if one considers invertebrates to be also 'wildlife'. Can only 11 wildlife species represent this vast and complex ecosystem even at the scale of the Project? For example, 6 of the VCs are mammals out of more than 85 species of boreal forest mammal, and only 4 are birds out of more than 300 boreal forest bird species.

Notwithstanding how they were chosen (Appendix 14A), YNLR also questions their individual selection with the omission of many others. For example, only two species of furbearer are selected, despite the importance of trapping to northern indigenous people. Species like Canada lynx, wolverine, fisher, mink and marten are omitted. Why? Only two species of songbird and two waterfowl species are selected. Why? No aerial feeders are included such as common nighthawk, barn swallow and bank swallow. Why? Is NexGen confident that a sufficient number and variety of VCs have been selected?

The assessment of wildlife and wildlife habitat used the same spatial boundaries as vegetation, which consist of local study area (LSA) of 2,832 ha and regional study area (RSA) of 107,491 ha. The exception was for woodland caribou, which included additional spatial boundaries required for the assessment of Project-specific and cumulative effects: caribou home range of 43,521 ha and SK2 West Caribou Administration Unit (SK2 West) of 48,287 km2.

YNLR supports the selection of woodland caribou as a VC, and believes it deserves special consideration for this assessment.

Existing baseline conditions for the selected wildlife and wildlife habitat were characterized based on results from field studies carried out between 2018 and 2020, Indigenous and Local Knowledge, and other available data sources (Page ii, Section 14, EIS).

Woodland Caribou (Page ii, Section 14, EIS)
The Project would be located in the north sub-unit of SK2 West, with the caribou home range and RSA overlapping both the SK1 and SK2 West. Under existing conditions (i.e., Base Case), caribou populations in the SK2 are ranked "as likely as not self-sustaining" (ECCC 2020) as the minimum 65% undisturbed critical habitat threshold necessary to support a self-sustaining population does not exist (ECCC 2020). In the SK1, Environment and Climate Change Canada's critical habitat assessment found that the caribou population(s) were considered self-sustaining (McLoughlin et al. 2019; ECCC 2020). In the Base Case, approximately 97% of the LSA, 66% of the caribou home range, 68% of the RSA, and 43% of the SK2 West is considered disturbed.

During baseline surveys in 2018 and 2019, woodland caribou or caribou sign (e.g., cratering, tracks, and scat [also referred to as pellets]) were observed in four locations, most frequently in open bog and black spruce/Labrador tea/feathermoss habitat. A herd of approximately 150 to 200 caribou was reported in
March 2020 by the CRDN between Lloyd Lake and Preston Lake within SK1, immediately east of SK2 West (CRDN-JWG 2020b). Indigenous Groups indicated that caribou populations have decreased substantially, but still occur in the Project area.

Wolf density was mentioned as a potential mitigating factor for moose below. YNLR wonders why there is no mention of wolf density in the baseline woodland caribou description. Human hunting pressure may increase on this species once the Project is underway, due to the presence of camps.

Moose (Page ii, Section 14, EIS)
The Project is located within Moose Management Unit 19, which is composed of Wildlife Management Zones 74, 75, and 76. Indigenous Groups identified moose as a key part of their culture and traditional diets, and hunting moose as important for community well-being and maintaining traditional ways of life. In the Base Case, suitable moose habitat is common and well distributed in the RSA. Moose habitat is relatively less abundant in the LSA largely due to the aggregation of existing anthropogenic disturbance. Under existing conditions, it is reasonable to assume that Highway 955 and the existing access road may be affecting moose, particularly during periods of higher exploration activity when there are more vehicles on the roads. The existing habitat conditions in the RSA are expected to support a healthy moose population. The low level of existing anthropogenic disturbance and low wolf density suggest that the moose population overlapping the RSA is likely self-sustaining and ecologically effective. During baseline studies, moose were detected using a variety of habitat types during winter and summer, including along roads and other anthropogenic features.

YNLR supports the selection of moose as a VC and is concerned about the impact that the increased levels of traffic and human disturbance will have on it. Hunting pressure may increase on this species once the Project is underway due to the presence of camps.

Grey Wolf (Page iii, Section 14, EIS)
The grey wolf is considered a habitat generalist, capable of exploiting a variety of habitat types on the landscape as long as the animals are mostly free from trapping or hunting and ungulate densities are sufficient to support a population. Habitat suitability models developed for the grey wolf identified that patches of high and moderate suitability habitat extend throughout the LSA, interspersed with low suitability habitat. Wolves are highly mobile with strong dispersal ability and flexibility in habitat preferences; for these reasons, the species is likely resilient to moderate levels of fragmentation on the landscape (Serrouya et al. 2017). In the Base Case, disturbances created by forest fires and human development are unlikely to be negatively affecting habitat availability for wolves in the RSA. Therefore, under existing conditions, the wolf population overlapping the RSA is expected to be healthy, with survival and reproduction rates linked to available prey. During baseline studies, grey wolves were detected using roads and trails in the RSA.

As an important predator of caribou and moose, YNLR supports its selection as a VC. Hunting and trapping pressure may increase on this species once the Project is underway due to the presence of camps.

Black Bear
Black bears are considered habitat generalists and occupy coniferous, deciduous, and mixed wood forest habitat types throughout the year in response to the shifting availability of forage and prey. Overall, suitable black bear spring and fall habitat is common, well distributed, and connected across the LSA and RSA in the Base Case. In the Base Case, it was assumed that black bears use regenerating burn areas in the RSA in the fall for feeding on berries prior to denning, and areas near Highway 955 in the RSA in the spring. Baseline surveys confirmed black bear use within the RSA, but black bear density was not measured. It was assumed that the black bear population overlapping the RSA is stable or increasing under existing conditions.

YNLR is concerned with an increase in human-bear conflict once the Project in underway. Their attraction to refuse dumps needs to be carefully managed. Hunting pressure may increase on this species once the Project is underway due to the presence of camps.

Beaver (Page iii, Section 14, EIS)
Beavers are expected to have the capacity to adapt and be resilient to existing human-related disturbances and associated variations in habitat availability. The majority of the LSA and RSA contains poor suitability beaver habitat, which is likely partially related to the extent of burned upland forest in the region; this is supported by observations made by members of the Birch Narrows Dene Nation (BNDN) about beavers not occupying burned habitat. The LSA and RSA contain large lakes that are also classified as poor habitat for beaver. Beavers are not considered sensitive to anthropogenic disturbance as dams are often created at human-made structures. In the Base Case, disturbances created by human development are unlikely to be negatively affecting habitat availability for beavers in the RSA.
The main limiting factors or threats affecting beaver survival, abundance, and distribution are likely harvest pressure and the availability of suitable habitat.

Baseline surveys for the Project detected beaver and beaver sign along shorelines of waterbodies in the LSA and RSA (Omnia 2020a). Runs and feeding marks were the most often detected signs of beaver, followed by inactive lodges and active lodges. Beaver dams were observed at two waterbodies near the Project.

YNLR supports the selection of the beaver as a VC owing to its status as a furbearer and riparian dweller. Trapping pressure on the species is likely to increase once the Project is underway due to the presence of camps.

Little Brown Myotis (Page iv, Section 14, EIS)
The little brown myotis is an endangered species under Schedule 1 of the federal Species at Risk Act (SARA; Government of Canada 2021a) due to dramatic population declines caused by white nose syndrome (WNS). Because WNS results in substantial declines in bat survival once a colony is infected, the resiliency of little brown myotis populations in the RSA is expected to be very low once the disease has spread to the area. As of 15 September 2021, the fungus that causes WNS in bats had been detected in eastern Saskatchewan, suggesting that the disease could be soon affecting Saskatchewan populations (Global News 2021). Suitable roosting habitat was identified and mapped in the Base Case; the resulting model suggests that the LSA and RSA contain limited suitable roosting habitat. Baseline bat surveys for the Project were completed between late May and early October 2018, and between early May and late September 2020. Based on detection data, it was assumed that creek, bog, and coniferous forest habitat are used by little brown myotis for foraging in the RSA.

Given the fact that white nose disease is likely to have a much greater impact than the Project itself, YNLR questions the selection of this species as a VC.

Olive-sided Flycatcher (Page iv, Section 14, EIS)
Suitable olive-sided flycatcher nesting forest habitat was identified and mapped in the Base Case. Habitat types known to have the potential to support olive-sided flycatchers were fairly common and widespread in the LSA and areas surrounding Patterson Lake. Existing anthropogenic disturbance is low in the RSA and it was assumed that most linear features in the RSA (i.e., trails, rough roads, and seismic/ cutlines) do not functionally affect the movement and habitat connectivity of olive-sided flycatcher in the Base Case. During baseline breeding bird surveys, olive-sided flycatcher was detected throughout the LSA and surrounding area around Patterson Lake with 13 observations at 12 survey sites. In the Base Case, it was assumed that olive-sided flycatcher survival and reproduction likely support a stable population given the current change in status from Threatened to Special Concern (COSEWIC 2018), the availability of suitable nesting habitat in the RSA, and the results of the baseline surveys.

YNLR is unclear why this species was selected as a VC for the Project assessment.

Rusty Blackbird (Page v, Section 14, EIS)
In Saskatchewan, rusty blackbirds are a common summer resident in boreal bogs and fens (Smith 1996). In the Base Case, the majority of the LSA and RSA contain poor suitability habitat. Large patches of open land cover associated with recent burns and early-stage regenerating

ecosites in the LSA and RSA may affect movements of rusty blackbirds. Anthropogenic disturbance in the RSA may have decreased and altered potential rusty blackbird habitat under existing conditions; however, baseline surveys recorded rusty blackbird in low suitability and poor suitability habitats during the nesting period. During baseline surveys for the Project, four rusty blackbirds were detected among three locations.

Given the apparent lack of suitable habitat and the low number of birds detected, YNLR questions the selection of this species as a VC.

Common Goldeneye (Page v, Section 14, EIS)
Common goldeneye is a species of duck that breeds in mature trees with suitable nest cavities along wetlands, lakes, and rivers. The assessment of habitat suitability for common goldeneye was focused on defining nesting habitat during the breeding period. The model predicted nesting habitat suitability to be highest at shoreline, but available up to 1.3 km from the edge of open water, and that common goldeneye primarily use waterbodies between 1.5 ha and 20 ha in size. In the Base Case, it was assumed that nesting territories in the RSA are at a density of 0.09 pairs/ha and that disturbance to nesting is negligible. Common goldeneye populations remain relatively stable despite threats from hunting, pesticides and contaminants, and degradation of habitat (Eadie et al. 2020). In the Base Case, it was assumed that the common goldeneye population overlapping the RSA is likely stable. During baseline surveys, eight pairs of common goldeneye were observed during the July waterfowl survey and 16 individuals were observed during the June migration survey.

This is a good indicator of intact riparian habitat and so useful as a VC in the assessment. Hunting pressure on this species will likely increase due to the presence of camps.

Mallard (Page vi, Section 14, EIS)
The mallard is the most abundant duck species in North America. Suitable nesting habitat was identified and mapped in the Base Case. The moderate amount of suitable mallard habitat available in the Base Case suggests that habitat availability is not limiting for this species in the LSA and RSA. Suitable nesting habitat for mallard in the LSA is patchily distributed, with high suitability habitat associated with wetland habitat or areas within 150 m of open water. Based on the available information, it was assumed that the population in the RSA may be decreasing in the Base Case. However, based on low level of disturbance, it was assumed that there are negligible threats to mallard survival and reproduction in the RSA in the Base Case. During baseline studies, 61 mallard individuals were detected.

Hunting pressure on this species will likely increase due to the presence of camps.

Canadian Toad (Page vi, Section 14, EIS)
Characterizing habitat suitability for Canadian toad focused on defining breeding habitat. In the Base Case, the LSA contains 4.8% of suitable breeding habitat for Canadian toad, most of which is surrounded by either large waterbodies or burned, pine-dominated upland habitat. The availability of suitable breeding habitat in the RSA is 14.3% but is limited by the amount of open wetland ecosites. The amount of existing anthropogenic disturbance in the RSA is low (i.e., 0.4% of the RSA) and expected to have had little influence on Canadian toad populations.

Highway 955 is likely a partial barrier to toad movement and dispersal, particularly during periods of high traffic volume, but the current density of linear features in the RSA is likely causing negligible adverse effects on Canadian toads. Canadian toad detections occurred in seven different ecosite/vegetation cover types in the LSA. Existing anthropogenic disturbance in wetland and pond habitat is limited and is likely having a negligible effect on Canadian toad breeding habitat.

YNLR agrees this is a potentially useful indicator and VC. However, were leopard frogs or other amphibians included in the surveys, and thus potentially serve as VCs?

An analysis was completed to evaluate Project components and activities and associated effects pathways that could potentially affect wildlife and wildlife habitat. The evaluation also considered similar combined effects from the Fission Patterson Lake South Property, the identified RFD for the wildlife and wildlife habitat assessment. Project activities that would have the potential to affect wildlife and wildlife habitat during the Project lifespan include (Page vii, Section 14, EIS):

- Land clearing
- Site preparation
- Construction of facilities and infrastructure
- Handling of ore and waste rock
- Changes to water and air quality
- Other supporting mining construction, operation, and decommissioning and reclamation (i.e., closure) activities

As part of the pathways analysis, proposed environmental design features and mitigation measures were considered to determine whether effects on wildlife and wildlife habitat VCs could be avoided or reduced to negligible levels, thereby removing the pathway. After mitigation measures were considered, the pathways screening analysis determined that many of the potential pathways from the Project to the environment could be removed. However, it was identified that the
Project could still adversely affect wildlife and wildlife habitat from the following pathways:

- Direct removal or alteration of soil and vegetation can cause loss of wildlife habitat and affect wildlife abundance and distribution
- Alteration of final terrain and soil conditions, and/or plant species composition, could change the types of ecosystems that can be reclaimed on the landscape and adversely affect wildlife habitat availability and distribution, and survival and reproduction
- Sensory disturbance (e.g., presence of people, air traffic, lights, dust, smells, noise) can alter wildlife movement and behaviour and adversely affect wildlife habitat availability and wildlife abundance and distribution.

Therefore, these pathways were carried forward to the residual effects analysis.

The sensory disturbance comes not only from the Project activities, but also from the elevated numbers of people living at the camp. Camp workers will likely be fishing and/or

hunting thereby increasing the level of harvest pressure on local and regional wildlife. ATV and snowmobile use may well increase too.

A residual effects analysis was conducted to determine the potential effects on wildlife and wildlife habitat under two assessment cases: effects of the Project (i.e., Application Case), and combined effects of the Project and the Fission Patterson Lake South Property (i.e., RFD Case). For wildlife and wildlife habitat, three measurement indicators were considered:

- Habitat availability
- Habitat distribution
- Survival and reproduction

The residual effects analysis followed a precautionary approach by using an assessment area, referred to as the maximum disturbance area, which assumes disturbance of an area approximately four times larger than the currently anticipated Project footprint. In the RFD Case, a precautionary approach was used by applying a maximum disturbance area to the Fission Patterson Lake South Property using the same assumptions made for the Project; this resulted in a maximum disturbance area approximately six times larger than the footprint presented in the Fission (2019) prefeasibility study. Similar conservatism was incorporated into the overlapping temporal boundaries for the Project and RFD. The assessment assumed the period of residual effects from the Fission Patterson Lake South Property would completely overlap with similar effects associated with the Project, a maximum duration of 95 years.

Woodland Caribou (Page viii, Section 14, EIS)
Under existing conditions, the provincial management threshold of limiting the amount of natural and anthropogenic disturbance within the caribou range to a maximum of 35% has already been exceeded; therefore, any amount of incremental habitat loss from any development, including residual losses of habitat associated with the proposed Project, is considered significant for woodland caribou. The Project is expected to affect caribou habitat availability in the LSA, caribou home range, RSA, and SK2 West by causing an incremental increase in the amount of disturbance. The changes would include both direct (i.e., physical footprint) and indirect (i.e., sensory disturbance/perceived predation risk) effects. Overall, the proportion of disturbance in the caribou home range is expected to increase by 0.3% with development of the Project, resulting in a decrease of 0.6% of suitable caribou habitat. In SK2 West, the proportion of disturbance is expected to increase by less than 0.1%, resulting in a decrease of less than 0.1% of suitable caribou habitat. In the RFD Case, a loss of 1.3% of suitable caribou habitat is expected in the caribou home range as a result of the Project and the Fission Patterson Lake South Property; in SK2 West, a loss of less than 1% of suitable caribou habitat is expected to occur.

YNLR believes that the NexGen and the Fission projects will make a bad situation worse for woodland caribou over the long term. The only mitigating factor might be long-term regional forest recovery in the absence of forest fires, but climate predictions suggest otherwise (Page ix). Given the significance of this assessment, YNLR would like to see a woodland caribou offset plan negotiated before the Project begins (see below).

Other Wildlife VCs

The Project is expected to result in habitat loss, habitat alteration, and sensory disturbance for all VCs during all Project phases. The magnitude of loss from the proposed Project would be less than 1.5% of suitable habitats in the RSA for all VCs. Cumulative habitat loss in the RFD Case would be less than 3.5% of suitable habitat in the RSA for all VCs. During Operations and Closure, habitats would be progressively reclaimed to the extent possible. Habitat distribution for all VCs in both the Application Case and RFD Case is expected to remain well connected throughout the RSA. Although there is variability on effects for individual animals, overall, all VC populations are expected to remain self-sustaining and ecologically effective.

Some of these other VCs are listed as species at risk, therefore any decrease in habitat over long periods could be considered as significant.

Woodland caribou is listed as vulnerable/rare to uncommon (S3) in Saskatchewan and is Threatened and on Schedule 1 of the SARA. Under existing conditions, the SK2 West does not meet the minimum 65% undisturbed habitat threshold necessary to support a self-sustaining population. Therefore, the amount of incremental habitat loss from any development, including residual losses of habitat associated with the proposed Project and the Project combined with the Fission Patterson Lake South Property, would further reduce the ability for woodland caribou to be self -sustaining. As a result, residual adverse effects to woodland caribou for both the Application Case and RFD Case are predicted to be significant.

See comment above.

NexGen is committed to reclaiming habitat disturbed by the Project footprint and offsetting the incremental loss of caribou habitat to help achieve self-sustaining and ecologically effective caribou populations. Trial reclamation to restore caribou habitat along linear features has commenced, which demonstrates this commitment. NexGen is also committed to developing and implementing a Caribou Mitigation and Offsetting Plan (CMOP) through engagement with the ENV and Indigenous Groups. Implementation of the CMOP is expected to result in a net increase in functional caribou habitat. In keeping with the Province's SK2 range plan, it is also anticipated that other future developments would implement similar mitigation actions to support a trajectory towards conserving caribou.

YNLR supports this commitment and expects to be involved in any future decisions regarding woodland caribou conservation.

Surveillance monitoring completed as part of the Environmental Protection Program, and associated environmental monitoring, would be implemented to verify effects predictions and effectiveness of mitigation measures for wildlife and wildlife habitat, identify unanticipated effects (i.e., manage the residual uncertainty in the effects prediction), and apply adaptive management, if required. The Decommissioning and Reclamation Plan would be implemented for long-term reclamation and establishment of vegetation communities that contribute to the maintenance of self-sustaining and ecologically effective wildlife populations and biodiversity. Monitoring and follow-up would be implemented to verify that reclamation was trending towards the successful regeneration and succession of vegetation communities that are

functionally similar to natural wildlife habitat in the region. Results from monitoring would be used to modify or apply different reclamation procedures through the process of adaptive management.

As with other Project monitoring commitments, YNLR will be looking to see that such programs are open, transparent, and statistically robust.

General comment on Sections 6, 11, 13, and 14: The EIS asserts in a number of places that the selected ecological VCs are representative of all boreal forest biodiversity and ecological health/integrity. This is an invalid assumption and oversimplification of the actual situation, which is far more complex.

Section 15. Human Health (Page 15-1, EIS)

15.2.1 Incorporation of Indigenous and Local Knowledge
15.2.2.1 Valued Components and Receptors

These sections of the EIS discuss the participation of Indigenous groups, the incorporation of their traditional knowledge, with specific reference to VCs.

The Athabasca Denesųłiné were not deemed by NexGen to be a primary Indigenous Group (and were excluded from the LPA) and were thus not afforded the opportunity to sign a fulsome Study Agreement that allowed for participation in a joint working group aimed at supporting the inclusion of Indigenous knowledge into the EA through ongoing dialogue, for the identification of valued components, for the discussion of other important issues (e.g., caribou, and traditional routes into the project study area, etc.), for the creation of a community liaison position and for the ultimate development of Benefits Agreement. The greater involvement of Athabasca Denesųłiné within these activities would have allowed for a much more complete exploration of Athabasca Denesųłiné knowledge, land uses, rights and interests and how they might be impacted by the Rook 1 Project and ensured that NexGen was able to better understand and appreciate the uniqueness of the Athabasca Denesųłiné. The exclusion of the Athabasca Denesųłiné from the primary Indigenous group category ensured that they were afforded less attention than other Indigenous peoples. For example, the EIS identified an average of 157 key engagement activities for each primary Indigenous group while the YNLR (and AD communities) had only 29. This is prejudicial and self-perpetuating.

15.2.3 Spatial boundaries

The EIS indicates that "the approach used to select spatial boundaries aligns with Indigenous and Local Knowledge shared by Indigenous Groups about the interconnectedness of the region's waterways, and how rivers and lakes cannot be viewed in isolation".

The Athabasca Denesųłiné were not deemed by NexGen to be a primary Indigenous Group (and were excluded from the LPA) and were thus not afforded the opportunity to sign a fulsome Study Agreement that allowed for participation in a joint working group aimed at supporting the inclusion of Indigenous knowledge into the EA through ongoing dialogue,

for the identification of valued components, for the discussion of other important issues (e.g., spatial boundaries and ADKLUO and traditional routes into the project study area, etc.), for the creation of a community liaison position and for the ultimate development of Benefits Agreement. The greater involvement of Athabasca Denesųłiné within these activities would have allowed for a much more complete exploration of Athabasca Denesųłiné knowledge, land uses, rights and interests and how they might be impacted by the Rook 1 Project and ensured that NexGen was able to better understand and appreciate the uniqueness of the Athabasca Denesųłiné. The exclusion of the Athabasca Denesųłiné from the primary Indigenous group category ensured that they were afforded less attention than other Indigenous peoples. For example, the EIS identified an average of 157 key engagement activities for each primary Indigenous group while the YNLR (and AD communities) had only 29. This is prejudicial and self-perpetuating

Section 15 of the Environmental Impact Statement (EIS) provides a comprehensive assessment of potential effects of the Rook I Project (Project) on human health. This assessment included consideration of both potential effects from the Project and cumulative effects from the Project and other reasonably foreseeable developments
(RFDs). The human health assessment used widely accepted scientific practices and incorporated Indigenous and Local Knowledge. Human health represented a valued component (VC) in the Environmental Assessment (EA); the selection was based on the Project's potential to cause exposures to hazards and sources of constituents of potential concern (COPCs) (i.e., chemical compounds, metals, and radionuclides). Atmospheric emissions from waste rock and ore handling and storage could produce air and dust emissions that could be inhaled by humans and deposited on soil. Release of treated effluent, runoff, and seepage into Patterson Lake may cause changes to surface water quality, which could be transferred to sediment, plants, fish, and wildlife. People ingesting water, plants, fish, and wildlife or contacting water and sediment, could subsequently be exposed to these constituents, which could adversely affect their health (Page i, Section 15, EIS).

The human health assessment focused on a local study area (LSA) of 685 km2, which is in the area of the proposed Project where direct environmental effects would be most likely to occur, and a regional study area (RSA) of 1,076 km2, where cumulative effects may occur.

To characterize existing conditions, baseline data from several other disciplines were used to support the human health assessment, including air quality, water and sediment quality, and soil quality. In addition to the information provided above, data collected with respect to blueberry and lichen quality, fish tissue, and wildlife were also used in the human health risk assessment (HHRA). There are no known existing anthropogenic sources of radiation or radioactivity in the LSA and RSA (Page ii, Section 15, EIS).

YNLR wonders whether data and experience gathered on human health effects at other uranium mining projects would have been included? What are the human health records from other uranium mines?

Project activities that would have the potential to affect human health during the Project lifespan include (Page ii, Section 15, EIS):

- Land clearing
- Site preparation
- Site traffic
- Construction of facilities and infrastructure
- Handling and storage of waste rock, special waste rock, and ore
- Storage of tailings in the underground tailings management facility (UGTMF) and mined out underground production stopes;
- Transportation of personnel and materials to and from the site
- Power generation
- Process plant and underground operations
- Non-hazardous waste incineration
- Discharge of treated effluent
- Removal of infrastructure, and reclamation and re-vegetation of facilities and infrastructure

Similar activities that could affect human health would be expected to occur for the Fission Patterson Lake South Property, with the exception of potential effects associated with an above ground TMF. As part of the pathways analysis, proposed environmental design features and mitigation measures were considered to determine whether effects on the environment could be avoided or reduced to negligible levels, thereby removing the pathway. Project environmental design features such as the UGTMF and the engineered cemented paste tailings were designed to minimize the Project's effects on human health. In addition, proposed mitigation measures that would reduce effects on human health include (Page iii, Section 15, EIS):

- Erosion and sediment control
- Progressive reclamation and re-vegetation of disturbed areas and areas where non-permanent Project features have been removed
- Treatment of effluent prior to discharging
- Recycling and reuse of process plant water
- Regular equipment maintenance
- Primarily using liquid natural gas for power generation
- Diffuser design to provide effective treated effluent mixing and to limit the area of the receiving water expected to have elevated COPC concentrations
- Application of water and/or suppressants to the access road, site roads, and the airstrip

After mitigation measures were considered, the pathways analysis determined that many of the potential pathways from the Project to the environment could be removed from the assessment. However, it was identified that the Project could still adversely affect human health from the following pathways (Page iii, Section 15, EIS):

- Emission and deposition of fugitive dust and radon
- Emission and deposition of criteria air contaminants and suspended solids
- Release of treated effluent, including changes to surface water quality, and indirectly, sediment quality
- Site runoff

- Seepage from waste rock storage areas (WRSAs) causing changes to groundwater and surface water quality; and
- Post-closure runoff and seepage from WRSAs and the UGTMF.

Therefore, these pathways were carried forward into a residual effects analysis.

To support the assessment of the human health VC, an HHRA was conducted to determine the potential effects on human health under two assessment cases: effects of the Project (i.e., Application Case), and combined effects of the Project and the Fission Patterson Lake South Property (i.e., RFD Case). The HHRA formed the basis for the characterization of risk to human health and the determination of significance. The HHRA considered four human health receptor groups (Page iv, Section 15, EIS):

- Camp worker at the Project
- Subsistence harvester
- Seasonal resident / lodge operator
- Future permanent resident of the Patterson Lake North Arm area.

The assessment of each receptor group included consideration of both and adult and a one-year-old child.

The selection of these four groups was based on members of the public potentially being exposed to low levels of airborne or waterborne constituents at locations on the landscape identified as important by Indigenous Groups and community members. Consistent with guidance in the Canadian Standards Association Group CSA N288.6-12 (CSA 2012), nuclear energy workers were excluded from the assessment since it is assumed these workers would participate in the Radiation Protection Program and Health and Safety Program. However, a worker at the Project camp (i.e., an individual working in food services) was included in the HHRA, since it was assumed that the camp worker consumes Traditional Foods fished, hunted, and harvested from within the LSA when not working.

It is likely that many nuclear energy workers will also consume traditional foods (see Page 18-57).

- The HHRA focused on COPCs that exceeded screening values in air and water based on predicted atmospheric releases and aqueous releases (i.e., treated effluent, treated sewage, site runoff, and groundwater solute releases) from the Project as well as considered COPCs predicted to exceed screening values in soil and sediment. The measurement indicators used to assess potential effects on human health were (Page iv, Section 15, EIS):
- Hazard quotient (HQ) – a measure of the ratio of the predicted exposure (i.e., daily dose) to a non-carcinogen relative to the toxicity reference value (TRV)
- Incremental lifetime cancer risk (ILCR) – the predicted increase in lifetime cancer risk from exposure to a carcinogen related to Project activities; represents risk above background cancer risk
- Radiation dose – a measure of the risk to the overall health of the human body due to an exposure to ionizing radiation

Non-Carcinogens
As a result of releases from the Project, no significant adverse effect on any human receptors would be likely during the Project lifespan for the Application Case, reasonable upper bound sensitivity scenario, or the RFD Case. All estimated Project HQs for all non-carcinogenic COPCs remained below the acceptable risk level of 0.2 per pathway for the one-year-old and adult age groups assessed.

Carcinogens
Incremental cancer risk was predicted to exceed the negligible cancer risk level of 1 in 100,000 for the relevant human receptors (i.e., camp worker, subsistence harvester, seasonal resident) in the LSA just outside the Project footprint, but did not exceed the negligible cancer risk within the RSA farther from the Project. The predicted incremental risk is in the negligible to low category, as the calculated ILCR is 4 in 100,000 for the Application Case, compared to a background level of approximately 50,000 in 100,000 (Page v, Section 15, EIS).

Radionuclides/Radon
The incremental radiation dose to all human receptors during the Project lifespan and the far-future projection were predicted to be below the regulatory public dose limit of 1 mSv/yr for the Application Case, upper bound sensitivity scenario, and RFD Case. In the far-future projection, a future permanent resident living at the location of the previous camp could receive a dose up to 0.1 mSv/yr, which is well below the regulatory public dose limit and the dose constraint. Overall, since the radiation dose estimates are below the public dose limit; no discernable health effects are anticipated due to potential exposure of these receptors to radioactive releases from the Project. The incremental radon concentration at the camp worker location for the Application Case, upper bound sensitivity scenario, and RFD Case would be below the CNSC limit of 60 Bq/m3; therefore, effects due to exposure to radon would not be anticipated (Page v, Section 15, EIS).

The weight of evidence from the analysis predicts that although changes to COPCs and the incremental radiation dose are possible, the predicted effects would be below the acceptable risk level and regulatory public dose limit for human health VC receptors. The residual effects on human health in the Application Case are therefore predicted to be not significant. The incremental and cumulative effects resulting from the Project, previous and existing developments, and the
Fission Patterson Lake South Property on human health are also predicted to be not significant.

The Environmental Protection Program, Environmental Monitoring Plan,
Industrial Air Source Environmental Protection Plan, and Traditional Foods Study would be implemented to verify effects predictions and effectiveness of mitigation on human health, identify unanticipated effects, and apply adaptive management.

See previous comments on Project follow up and monitoring.

Section 16 Cultural and Heritage Resources and Indigenous Land and Resource Use (Page 16-1, EIS)

16.1 Introduction

Figure 16.1-1 Location of the Rook 1 Project.

Figures 16.1-1 shows the Athabasca Denesųłiné reserves but does not name the First Nations or show our community locations. Further, the map does not show the Athabasca Denesųłiné traditional territory. The map should show this information. This information has been available to the public since 2008 - prior to the beginning of NexGen's Rook 1 project. Our traditional territory is referenced on the YNLR website (www.yathinene.ca) and was available on the sites of our predecessor organizations through the Prince Albert Grand Council. This information was contained within the report - Provision of Athabasca Denesųłiné Traditional Knowledge, Land Use and Occupancy Information for the NexGen Rook 1 Project Environmental Assessment - provided to NexGen in December 2020. Lastly, we include a map of the Athabasca Denesųłiné traditional territory herein as Figure 2.

16.1.2 Purpose and Approach to the Assessment

The EIS (p 16-8) notes the primary steps in the assessment:

1. Measure and assess effects and cumulative effects
2. Characterize existing conditions
3. Evaluate interactions and mitigations
4. Analyse residual effects
5. Determine significance
6. Uncertainty and prediction confidence
7. Monitoring and follow-up

The Athabasca Denesųłiné question how Step 2 "characterize existing conditions" can be appropriately met given that the AD were excluded from fulsome consideration as a primary Indigenous group. See below for elaboration. The limited consideration of the Athabasca Denesųłiné during Step 2 has implications for subsequent steps.

16.2 Component Methods

16.2.1 Incorporation of Indigenous and Local Knowledge

The EIS (p 16-9, 16-10, 16-11. 16-12) provides recognition of the communities included within the local priority area (LPA). It furthers describes the sources of the incorporated Indigenous and local knowledge including IKTLU studies (lists on pages 16-9 to 16-10) and special studies (e.g., harvest study, foods studies). The EIS also notes that another key source of Indigenous and Local Knowledge was the Joint Working Groups that were established with/for primary Indigenous groups. Lastly the EIS indicates that information was also shared/gathered during engagement activities (e.g., community information sessions, site tours, baseline data collection, workshops, formal and informal meetings, others). The EIS notes (p16-11, 16-12) that the Indigenous and local knowledge was incorporated into VCs, spatial boundaries, existing conditions descriptions, project interactions/mitigation, residual effects analysis, and monitoring, follow-up, and management.

NexGen began engaging with communities as early as 2013. Unfortunately, discussions with the Athabasca Denesųłiné did not begin until 2019.

Based on the early engagement (e.g., pre-2019), primary communities that were deemed most likely affected by the proposed Project were identified. Then, using these identified communities as a guide, a LPA (local priority area) was established. NexGen engagement activities were focused on primary communities in the LPA. This approach has at least three flaws. First, it ignores or disregards the information provided by the Athabasca Denesųłiné in 2020 that clearly demonstrates their interests in the vicinity of Rook 1. Clearly processes need to respond to the information available. Second, because the inclusion of communities in the LPA (and indeed the geographic extent of the LPA) is based on whether or not they were previously identified means that AD's exclusion is likely self-perpetuating. Since the Athabasca Denesųłiné were not involved in the early stages they could not possibly have been considered nor could the LPA area include them. Third. the proximity of our communities to the project site is downplayed in the EIS by using a road distance measure rather than the well documented cross-country routes our members generally use to access the portion of our territory near the Project. In fact, Fond du Lac is closer to the project site than a number of other groups considered primary!

While the YNLR prepared (with financial support from NexGen) the 2020 Report - Provision of Athabasca Denesųłiné Traditional Knowledge, Land Use and Occupancy Information for the NexGen Rook 1 Project Environmental Assessment – on behalf of the Athabasca Denesųłiné communities, they did not undertake traditional foods studies and/or community led household harvest surveys and had far fewer interactions with NexGen where this information could have been discussed.

For reference, the ADKLUO study report provided an overview of the Athabasca Denesųłiné (AD) including culture, history, Treaties, way of life and relationships with the caribou and other wildlife, and Nuhenéné (AD traditional territory). Further, it provided a thematic analysis and mapping of cultural and land use activities including big game harvesting, small game and fur bearers harvesting, fish and bird harvesting, overnight sites and travel routes, traditional plants, special areas and Dene names. The later sections identified primary concerns of the Athabasca Denesųłiné, and potential impacts related to the NexGen Rook 1 Project and industrial development in general.

The Athabasca Denesųłiné were not deemed by NexGen to be a primary Indigenous Group and were thus not afforded the opportunity to sign a fulsome Study Agreement that allowed for participation in a joint working group aimed at supporting the inclusion of Indigenous knowledge into the EA through ongoing dialogue, for the identification of valued components, for the discussion of other important issues (e.g., caribou, and traditional routes into the project study area, etc.), for the creation of a community liaison position and for the ultimate development of Benefits Agreement. The inclusion of Athabasca Denesųłiné within these activities would have allowed for a much more complete exploration of Athabasca Denesųłiné rights and interests and how they might be impacted by the Rook 1 Project and ensured that NexGen was able to better understand and appreciate the uniqueness of the Athabasca Denesųłiné. The exclusion of the

Athabasca Denesųłiné from the primary Indigenous group category ensured that they were afforded less attention than other Indigenous peoples (e.g., 29 key meetings for the AD as compared to an average of 157 key meetings on average for each "primary" Indigenous group (See EIS Table 2.6-1)) and limits AD specific information incorporation into VCs, spatial boundaries, existing conditions descriptions, project interactions/mitigation, residual effects analysis, and monitoring, follow-up, and management. This is prejudicial and self-perpetuating

Further, the reference to the Athabasca Denesųłiné IKTLU study (p 16-10) was footnoted as follows: "A Study Funding Agreement was signed with Ya'thi Néné Lands and Resources (YNLR) representing the Black Lake Denesųłiné First Nation and the Fond du Lac Denesųłiné First Nation: however, this agreement was limited to funding a self-directed IKTLU Study, and not a JWG process due to the level of engagement designated to the YNLR by the CNSC, ENV, and accepted by NexGen."

The YNLR prepared (with financial support from NexGen) the 2020 Report - Provision of Athabasca Denesųłiné Traditional Knowledge, Land Use and Occupancy Information for the NexGen Rook 1 Project Environmental Assessment – on behalf of the Athabasca Denesųłiné communities including Black Lake Denesųłiné First Nation, Fond du Lac Denesųłiné First Nation, and the Hatchet Lake Denesųłiné First Nation. Lastly, the comment that the level of AD engagement was designated by the CNSC and ENV and accepted by NexGen does not appear to be congruent with the selection criteria that NexGen identified within the EIS to determine primary Indigenous groups (See YNLR comments on EIS Sections 1.2.3 and 2.4.1 as well as comments below). Did NexGen apply the criteria or not? Either way, the Athabasca Denesųłiné have been improperly excluded from the primary Indigenous group category.

16.2.2 Valued components, Measurement Indicators, and Assessment Endpoints
16.2.2.1 Valued Components
This section (p 16-12, 16-13, 16-14) of the EIS discusses the identification of valued components, and the cultural and heritage resources and the Indigenous land and resource use VCs in particular.

The EIS notes that the selection of "VCs was supported by feedback provided during community information sessions for the Project in La Loch, Turnor Lake, Buffalo River, and Buffalo Narrows, …" (p16-13). It further describes that "the Indigenous land and resource use VC focussed on use by CRDN, MN-S, BNDN, and BRDN." (p16-13).

The EIS stated "More broadly, the Fond du Lac Denesųłiné First Nation and the Black Lake Denesųłiné First Nation of the Athabasca Denesųłiné, are interested parties for the Project, and are represented by Ya'thi Néné Lands and Resources (YNLR). While the YNLR is not a primary Indigenous Group as identified by the CNSC, ENV, and NexGen, they have also expressed interest in the potential effects of the Project on Indigenous land and resource use." (p 16-13). There is also a footnote that states "Note the Athabasca Denesųłiné is the collective name of Black Lake, Hatchet Lake, and Fond du Lac Denesųłiné First Nations; however, the Hatchet Lake

Denesųłiné First Nation's traditional territory does not overlap the Project, and as such they were not included in the YNLR representation".

The EIS noted that the cultural and heritage resources and the Indigenous land and resource use VCs were shared with, supported by, and progressively discussed, with, the JWGs. The EIS also notes that further validation using the IKTLU Studies occurred. The importance of large game by the AD as a foundation of their culture and way of life was noted in the EIS.

As previously noted, the Athabasca Denesųłiné were not involved in the community information sessions referenced, nor were they included in JWGs or its discussions, nor did the EA process engage with them as actively and deeply as with those deemed "primary" Indigenous groups. These exclusions are unfortunate as it means AD's core method for providing relevant information was via the 2020 Report - Provision of Athabasca Denesųłiné Traditional Knowledge, Land Use and Occupancy Information for the NexGen Rook 1 Project Environmental Assessment – prepared by YNLR on behalf of the Athabasca Denesųłiné communities including Black Lake Denesųłiné First Nation, Fond du Lac Denesųłiné First Nation, and the Hatchet Lake Denesųłiné First Nation without the benefit of continuous and supporting discussion with NexGen.

16.2.2.2 Measurement Indicators

The EIS (p 16-14) describes the measurement indicators for the Indigenous land and resource use VC as (i) changes to access and area available for Indigenous traditional activity;(ii) changes to the availability and quality of wildlife, fish, and plants; and (iii) changes in the quality of Indigenous land use experience.

As noted herein, the Athabasca Denesųłiné have had limited input, mainly due to their exclusion from the primary Indigenous group category, into the development of the VCs. This ensures that some elements are overlooked. For example, the Athabasca Denesųłiné generally use to access the portions of their traditional territory near the Project via cross-country routes. A focus on road access or proximity will overlook this fact.

16.2.3 Spatial Boundaries.

The EIS (16-16, 16-17, 16-18, 16-19) describes that the Local Study Area (LSA) and Regional Study Area (RSA) for the Indigenous land and resource use VC were developed to reflect the spatial extent of anticipated direct and indirect Project effects on supporting intermediate components and VCs, along with known and documented land use patterns by Indigenous Groups across the landscape. Land use patterns were important to consider in defining the LSA and RSA because of the importance of Indigenous Groups' spiritual and cultural relationship with the broader landscape as reflected in habitation, travel, and access. Potential Project effects on Indigenous land and resource use may not only be specific to a location but may more broadly affect use across the landscape. Indigenous Groups have indicated the need for a large land base to successfully practise land and resource use activities such as hunting, trapping, fishing, gathering, travel, habitation, and cultural practices (multiple Indigenous groups cited ***but excludes the Athabasca Denesųłiné*** ***(AD emphasis added))***

Unfortunately, the omission of the Athabasca Denesųłiné means that their traditional territory, Treaty area, traditional land and resource uses, and their cultural connections to the landscape were missed. Please see below for additional information.

EIS Figure 16.2-1 (p 19-19) displays the Indigenous Land and Resource Local and Regional Study Areas

Figure 3 overlays the Athabasca Denesųłiné traditional territory, Treaty 8 boundary, and traditional land and resources uses with the EIS map of the LSA and the RSA. Figure 4 is an enlargement of same information in the area near the Project. Clearly there is overlap between rights and interests and both the LSA and RSA. In fact, Athabasca Denesųłiné traditional territory covers approximately 86% of the LSA. the This Athabasca Denesųłiné traditional territory information has been publicly available since at least 2008 (before the NexGen Rook 1 Project) and other information was provided directly to NexGen during the EA process. [Note these figures appear in early section comments].

Figure 3. Athabasca Denesųłiné traditional territory, Treaty 8 boundary, and traditional land and resources uses overlayed with the EIS LSA and RSA

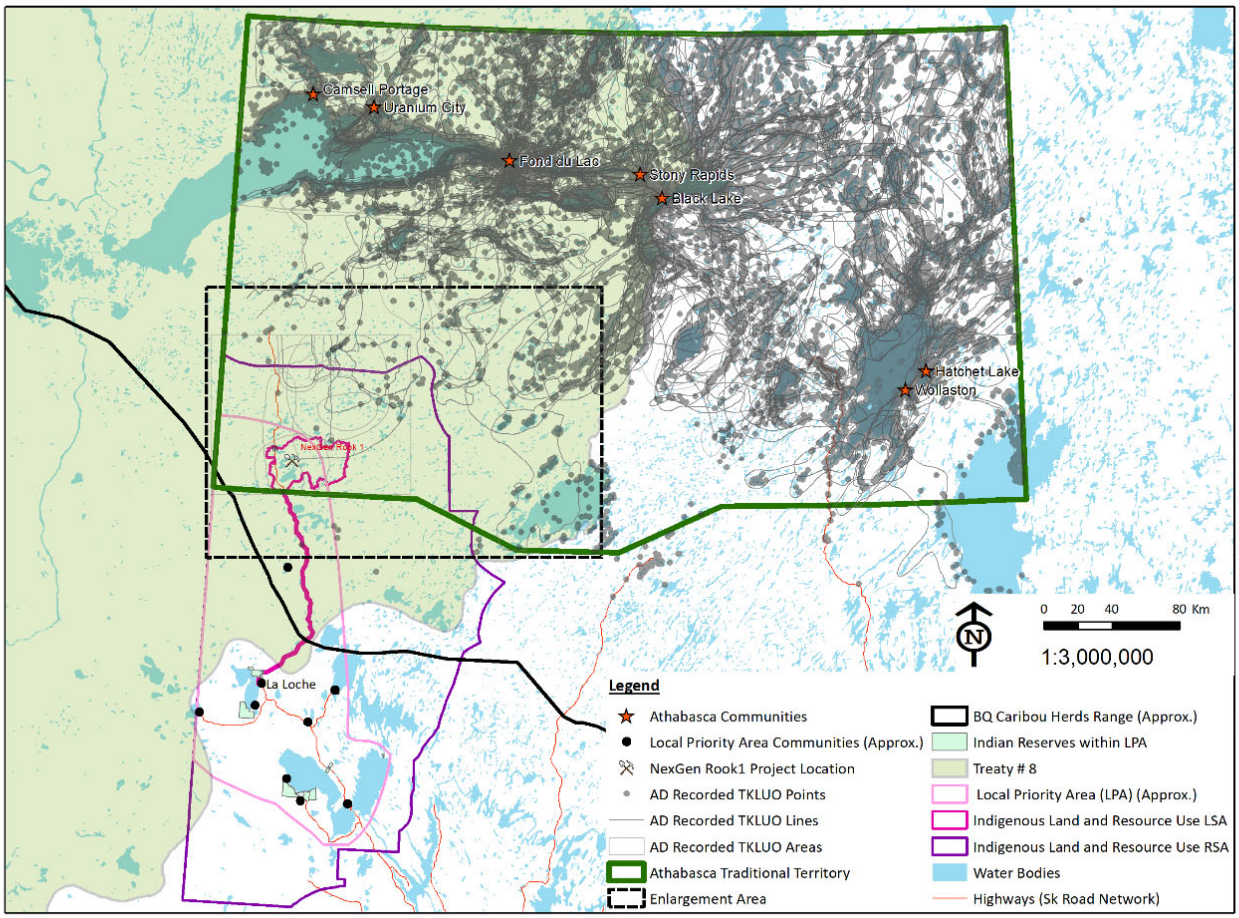
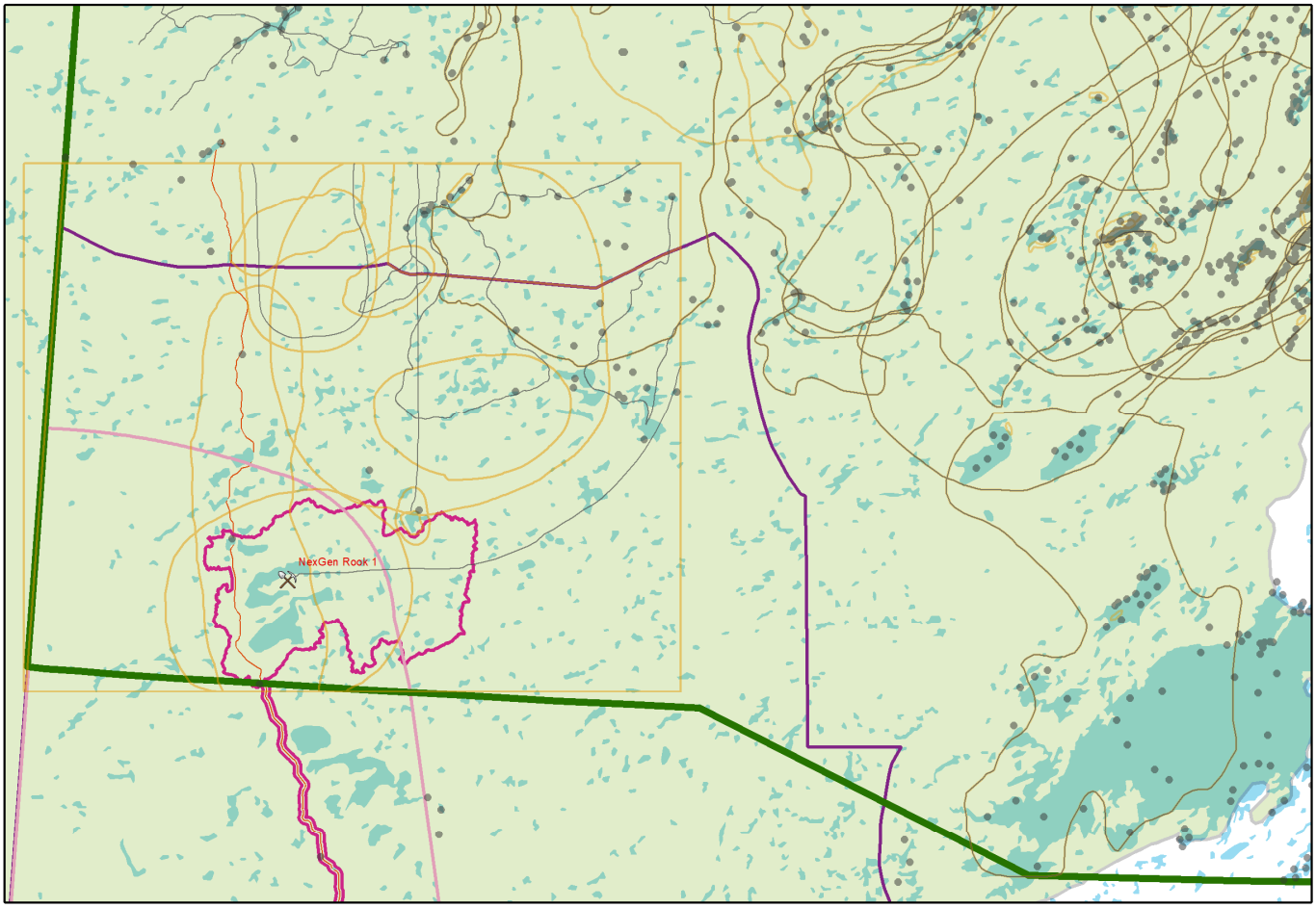


Figure 4. Athabasca Denesųłiné traditional territory, Treaty 8 boundary, and traditional land and resources uses overlayed with the EIS LSA and RSA. Enlarged for the vicinity of the Project.



Legend

- NexGen Rook I Project Location
- AD Recorded TKLUO Points
- AD Recorded TKLUO Lines
- AD Recorded TKLUO Areas
- Athabasca Traditional Territory
- Treaty # 8
- Local Priority Area (LPA) (Approx.)
- Indigenous Land and Resource Use LSA
- Indigenous Land and Resource Use RSA
- Water Bodies
- Highways (Sk Road Network)

N

0 5 10 20 Km

1:1,130,000

16.2.4 Temporal Boundaries

The EIS (p 16-20) notes that the temporal scope for the assessment is 43 years from Construction to Operations to Decommissioning and Reclamation phases.

The potential impacts to Athabasca Denesųłiné rights and interests over such a lengthy period of time makes their limited inclusion in the EIS all the more egregious.

16.2.6 Existing conditions

The EIS (p 16-24) explained the characterisation of existing conditions (linked to the measurement indicators discussed above in Section 16.2.2.2) in order to provide context for the incremental and cumulative effects from the Project. Information sources included socio-economic baseline, IKTLU Studies (including YNLR), JWG meetings. KP Interviews, a trapper's workshop, other regulatory documents (including YNLR comments on Project Description), as well as archival and historical documents.

While the Athabasca Denesųłiné were able to provide some information through their IKTLU study and comments on the Project Description, they were not provided the opportunity to provide supporting and supplemental information through JWG meetings, workshops, KP Interviews, baseline study.

16.2.8 Residual Effects Analysis

The EIS (p 16-26, 16-27, 16, 28) described the residual effects analysis using each of the measurement indicators (see EIS 16.2.2.2 above) identified for the Indigenous land and resource use VC in the LSA and RSA. The section ends with a note that that a key component of the quality of [Indigenous land use] experience is the concept of cultural landscape as a more holistic approach that goes beyond site-specific inventories. It was then noted that changes to cultural landscape were qualitatively assessed considering the assessment of sensory disturbances, safety and the perceptions of the quality of resource harvested.

The Athabasca Denesųłiné see the cultural landscape assessment criteria as limited and not reflective of their broader rights and interests given the incomplete appreciation of their traditional territory and other information provided along with the limited engagement opportunity to ensure NexGen's appreciation.

16.3 Existing Conditions

16.3.2 Overview of Indigenous Groups

The EIS (p 16-31) again states again that "Primary Indigenous Groups were the focus for a deeper level of engagement, while other Indigenous Groups were offered to receive information (i.e., be informed) on the Project. NexGen has been engaging with the following other Indigenous Groups on the Project, consistent with CNSC and ENV direction indicating these groups would be informed of the Project:

- Black Lake Denesųłiné First nation, as represented by the YNLR;
- Fond du Lac Denesųłiné First Nation, as represented by the YNLR;
- others

The EIS also re-states that "a Study Funding Agreement was also signed with the YNLR … as the YNLR identified an interest in sharing Indigenous Knowledge through an IKTLU Study

The Athabasca Denesųłiné have repeatedly raised their issues with their categorization as an "other Indigenous group rather than a "primary" Indigenous group and the resulting lesser level of engagement and consideration in the Project EA.

16.3.3 Contemporary Indigenous Land and Resource Use

The EIS then describes, for each Indigenous Group the following:

- Occupancy, habitation, and access
- Fishing
- Gathering
- Hunting
- Trapping
- Culturally important sites

The information from the primary Indigenous groups is very detailed and the result of a long-term, focused engagement process. A process that placed less attention on the AD. The Athabasca Denesųłiné are not questioning the inclusion any of the other Indigenous groups within the EIS. They are merely pointing out inconsistent treatment and highlighting its ramifications. Further, we note within the descriptions of these groups that there are a number of references that support the Athabasca Denesųłiné assertions of traditional territory and land use.

16.3.3.3.1 Birch Narrow Dene Nation

The EIS (p 16-49) mentioned travel between Turnor Lake and Lake Athabasca and noted that Athabasca Denesųłiné travel south to the communities (AD added emphasis)

16.3.3.4 Buffalo River Dene Nation

16.3.3.4.1 Occupancy, Habitation, and Access

The EIS (p 16-53) mentions that travel between the community and the communities of the Athabasca Basin has always been important and noted the travel to, and family ties with, the AD Communities. Travel was via waterways and trails) including the community member quote:

"I hear a little bit of a talk… from the [E]lders. They're all gone now. People used to travel between Buffalo River, Cold Lake, Black Lake. We had our own, mostly water systems. And probably trails too. So, people – not as much as today, but you know, people still travelled in between those places….But usually the main rivers like Clearwater…There was probably people up at Cluff Lake….they got there somehow ….up at Uranium City and Camsell Portage and Black Lake and Stoney Rapids, Fond du Lac. They – I don't know the history and I don't know how they got there, but there was intermarriage and inter travel between these places." (TSD III: BRDN) (AD added emphasis)

The Athabasca Denesųłiné note that within the descriptions of these groups, their neighbors, that there are a number of references that support the assertions of AD traditional territory, land use, and travel patterns.

16.3.3.5 Athabasca Denesųłiné

The EIS (p 16-57) states that "Existing conditions are described for the YNLR for context, noting the YNLR traditional use area does not overlap the LSA and the YNLR is not a primary Indigenous Group as identified by the CNSC, ENV and NexGen. NexGen agreed to a Study Funding Agreement with the YNLR to support development of an IKTLU Study (TSD VI: YNLR), which has been incorporated in the …description as appropriate.

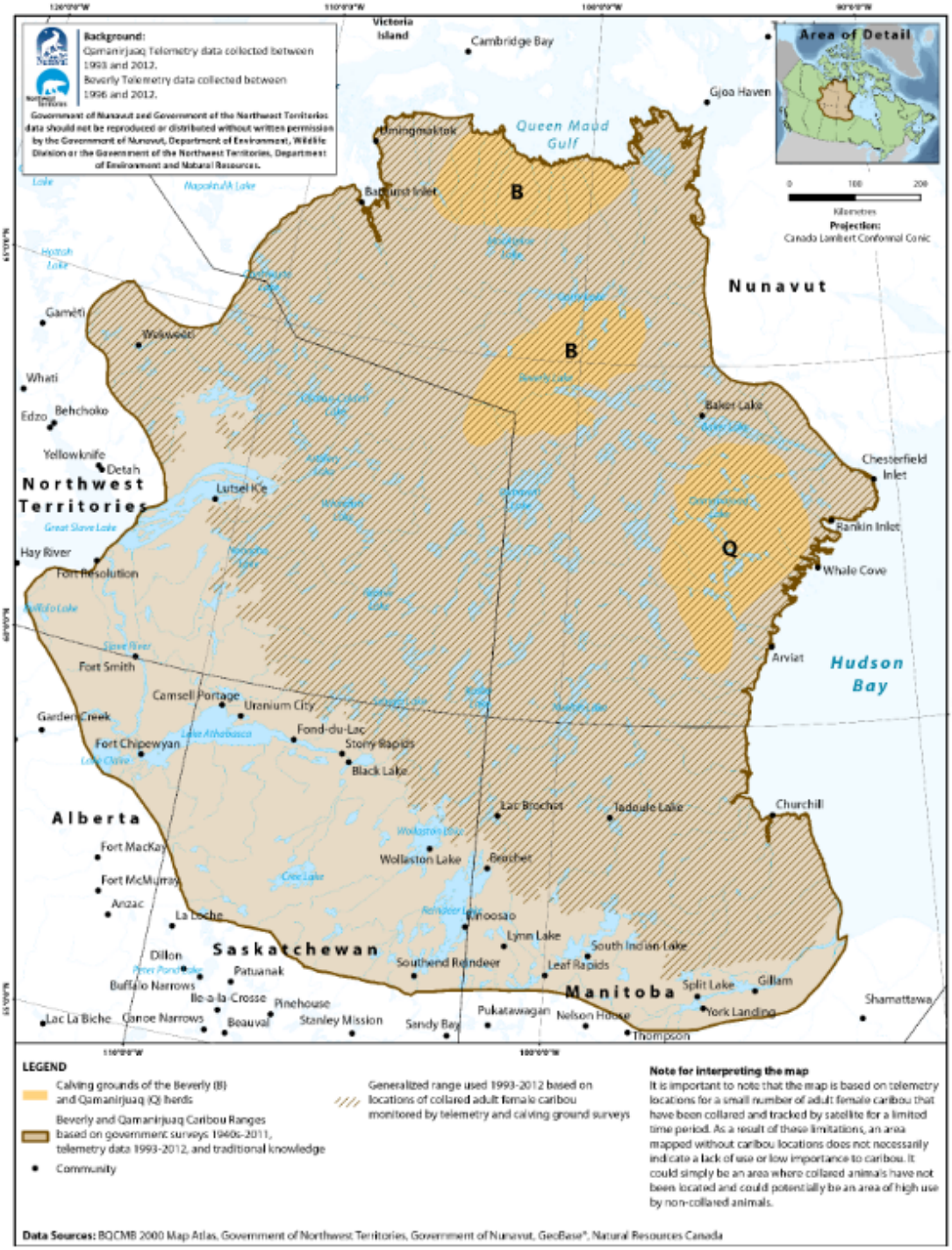
It is incorrect to state that the AD traditional use does not overlap the LSA. The Athabasca Denesųłiné traditional territory and specific land uses do indeed overlap the LSA (and RSA) almost entirely (See Figures 3 and 4 above). Further this statement seems at odds with the information presented in other sections of the EIS.

This subsection also notes interconnectedness of caribou and Athabasca Denesųłiné culture.

It's important to note that the Project is within the range of the caribou herds that define the Athabasca Denesųłiné. Where there are, or have been caribou, there have been Athabasca Denesųłiné. The following map (Figure 6) produced by the BQCMB shows that the Athabasca Denesųłiné Traditional Territory, the NexGen Project's Indigenous Land and Resource Use's LSA both fall almost entirely within the range of the barren-ground caribou.

Figure 6 (https://arctic-caribou.com/pdf/Fig2_BevQam%20caribou_ANNUAL%20RANGE-CALVING%20GROUNDS_2012.pdf

16.3.3.6 Summary of Contemporary Indigenous Land and Resource Use



Beverly and Qamanirjuaq caribou ranges based on government surveys, tracking collared cows by telemetry and traditional and local knowledge of caribou harvesters.

The EIS (p 16-58, 16-59) states here that the "CRDN, MN-S, BNDN, BRDN, and AD practice Indigenous land and resource use activities throughout the RSA, including hunting, trapping, fishing and plant gathering, and use of cultural sites, habitation sites, and travel routes. Then it states that "the Athabasca Denesųłiné did not identify any specific traditional activities overlapping with the LSA".

The Athabasca Denesųłiné's traditional territory and documented land use includes almost all of the LSA (see Figures 3 and 4 above).

16.4 Project Interactions and Mitigations
16.4.1 No Pathways
16.4.2 Secondary Pathways
16.4.3 Primary Pathways
These sections of the EIS (p16-59 to 16-69) discussed the pathways analysis for identified potential adverse effects of the Project on cultural and heritage resources and Indigenous land and resource use, mitigation options, and the effectiveness of such mitigation. In general, most issues were mitigatable, but some related to Indigenous land and resource use were carried forward for further analysis as discussed in section 16.5. Table 16.4-1 included a number of mitigation options including establishing programs such as caribou measures, Indigenous monitors, implementation committee, Environmental committee, Benefits agreements, and others.

Given their treatment as a non-primary Indigenous group thus far in the EA, the Athabasca Denesųłiné are questioning whether they would be included in the mitigation options identified. Is NexGen considering their inclusion in programs such as caribou measures, Indigenous monitors, implementation committee, Environmental committee, Benefits agreements, and others? The Athabasca Denesųłiné believe that they should be <u>full</u> participants in any such endeavours.

16.5 Residual Effects Analysis (p 16-70 – 16-107)
The EIS describes that, in general, any disturbances to Indigenous land and resource use would be limited in scope, scale, and duration and/or can be mitigated.

The Athabasca Denesųłiné provide comments on some aspects of the Indigenous land and resource use analysis below.

16.5.1.2.3 Hunting and trapping
The EIS (p 16-78, 16-79) notes that woodland caribou will be impacted by the Project due to a loss of habitat, disrupted movement patterns, and road use. But then indicates that the amount of undisturbed habitat necessary to support a self-sustaining population has already been exceeded and any Project impacts will be incremental. Further NexGen indicates that a Caribou Mitigation and Offsetting plan would be developed to increase functional habitat for caribou.

The Athabasca Denesųłiné believe that they should be <u>full</u> participants in any Caribou Mitigation and Offsetting Plan.

16.5.1.3.7 Cultural Landscapes

The EIS (p 16-93) states "These Indigenous Groups have been using these lands for traditional activities for generations" YNLR is included in the citation.

The Athabasca Denesųłiné find it ironic that while they are quoted here, their traditional territory and land use is downplayed in the EA.

16.7 Prediction Confidence and Uncertainty

The EIS (p 16–115) includes a statement on limitations of IKTLU studies that "do not reflect all values in those area, and an absence of data does not signify an absence of use or value". The YNLR is not included in the citation.

Further the EIS notes that uncertainty was managed by using a variety of information sources, defining assessment boundaries broadly, incorporating Indigenous and Local Knowledge at all steps and applying assessment experience and professional judgement.

The statement of limitation also applies to the Athabasca Denesųłiné as noted specifically in their IKTLU study… "This study does not represent all Denesųłiné values in the project study area, and an absence of data does not signify an absence of use or value."

The AD were excluded from most of the uncertainty management measures noted in the EIS.

The AD should be included in the citation as noted. Further, their exclusion from primary Indigenous group status should be addressed.

16.8 Monitoring, Follow-Up, and Adaptive Management

The EIS (p 16-116, 16-117) discusses the need to confirm the effectiveness of mitigation for impacts to the land and resources Indigenous Peoples rely upon including: Fish and fish habitat (Section 11), Vegetation (Section 13), Wildlife and wildlife habitat (Section 14), Air quality (Section 7.2), and Noise (Section 7.3).

The EIS notes that:

- such effectiveness of mitigations on the Indigenous land and resource use would be evaluated through the Independent Indigenous monitoring of the effects of the Project.
- Regular meetings would be held with potentially affected Indigenous land users, as applicable, independently and as part of the Indigenous and Public Engagement Program to review the previous season and understand any issues or concerns that could be addressed. Follow-up would be conducted as needed.
- A project feedback and grievance mechanism would be established to record and action issues identified by LPA residents. Indigenous land and resource use issues would be tracked and addressed as they arise and periodically analyzed through management reviews.
- Implementation success of the commitments made under Benefit Agreements would be tracked and Implementation Committees established
- Success of regional mitigation strategies would be monitored

- Perception surveys would be completed to better understand LPA residents' thoughts and understanding of uranium mining. The perception surveys would be designed for documenting current and ongoing community

The Athabasca Denesųłiné believe that their status as a non-primary Indigenous group is not justifiable given their traditional territory, Treaty 8 membership, the proximity of their communities to the Project, well documented land and resource use within the LSA and RSA, relationship with NexGen and the CNSC, and potential impacts on their aboriginal and Treaty Rights. Such a mis-categorization may prevent them from being fully involved in the monitoring activities noted in the EIS. The AD should be enabled to fully participate in these activities.

16.9 Key Findings

The EIS indicates:

- The project will restrict access and reduce areas available for, or displace other land and resource users, may change the availability of fish, plants and wildlife, may change the quality of the resource use experience for some Indigenous land and resource users.
- "Residual adverse effects on Indigenous land and resource use were assessed as not significant for both the Application Case and the RFD Case"
- "Indigenous land and resource use activities may change or be displaced but are expected to continue with the application of mitigations including the Indigenous and Public Engagement Program and Benefit Agreements"
- "NexGen commits to working with the local communities, including Indigenous Groups and other regional groups…Monitoring and adaptive management would involve both regular communications with Indigenous Groups and evaluation"
- "The establishment of the Environmental Committee and hiring of an independent Indigenous Monitor would be key for Indigenous Groups to stay actively involved in monitoring of the environmental performance of the Project and to verify environmental commitments are implemented under the Benefit Agreements. NexGen would continue to engage and have ongoing communication with potentially affected Indigenous land users (independently and as part of the Indigenous and Public Engagement Program), share Project information, address issues and concerns as they arise, and share environmental monitoring results with local Indigenous Groups and communities."
- "NexGen has committed in the Benefit agreements with each primary Indigenous group to establish and Implementation Committee. The Implementation Committee is tasked with the responsibility of facilitating and effective ongoing working relationship between NexGen and the Indigenous Groups to verify that all commitments made within the Benefit Agreements are realized"

The Athabasca Denesųłiné were not deemed by NexGen to be a primary Indigenous Group and were thus not afforded the opportunity to sign a fulsome Study Agreement that allowed for participation in a joint working group and greater, more focused engagement activities. The Athabasca Denesųłiné question how an approach that doesn't fully characterize existing conditions can be appropriate given that they were excluded from fulsome consideration as a primary Indigenous group. The information from the primary Indigenous groups is very detailed and the result of a long-term, focused engagement

process. A process that placed less attention on the Athabasca Denesųłiné. The Athabasca Denesųłiné are not questioning the inclusion any of the other Indigenous groups within the EIS. They are merely pointing out inconsistent treatment and highlighting its ramifications. The Athabasca Denesųłiné believe that their status as a non-primary Indigenous group is not justifiable given their traditional territory, Treaty 8 membership, the proximity of their communities to the Project, well documented land and resource use within the LSA and RSA, relationship with NexGen and the CNSC, and potential impacts on their aboriginal and Treaty Rights. Such a mis-categorization may prevent them from being fully involved in the assessment, mitigation, and monitoring activities noted in the EIS. The AD should be enabled to fully participate in these activities.

Section 17. Other Land and Resource Use (Page 17-1, EIS)

Section 17 of the Environmental Impact Statement (EIS) provides a comprehensive assessment of potential effects of the Rook I Project (Project) on other land and resource use. This assessment included consideration of both potential effects from the Project and cumulative effects from the Project and other reasonably foreseeable developments (RFDs). The other land and resource use assessment used widely accepted scientific practices and incorporated Indigenous and Local Knowledge. Other land and resource use represented a valued component (VC) for the Environmental Assessment (EA); the selection was based on other land and resource uses being key economic activities and central features of the social setting in northern Saskatchewan. The other land and resource use assessment focused on the commercial and recreational uses that are derived from the natural environment. Commercial resource use included activities in which people from both non-Indigenous and Indigenous communities may participate: commercial fishing and trapping; lodges, outfitting and ecotourism; forestry; and mining. Recreational uses included use of parks and protected areas by Indigenous or non-Indigenous peoples, as well as fishing and hunting activities that are conducted by non-Indigenous people under provincial licences (Page i, Section 17, EIS).

The other land and resource use (OLRU) local study area (LSA) includes the areas surrounding Patterson, Vermeersch, Wickenkamp, Forrest, Beet, and Naomi lakes, plus the Highway 955 corridor between the Project site and La Loche. The OLRU RSA is defined by the N-19 trapping block. Existing activities include three lodge and outfitting operations, non-indigenous hunting and fishing, commercial fur trapping, commercial fishing, off-road vehicle use, hiking, and other low impact activities.

An analysis was completed to evaluate Project components and activities and associated effects pathways that could potentially affect other land and resource use. The evaluation also considered similar combined effects from the Fission Patterson Lake South Property, the identified RFD for the other land and resource use assessment. Project activities that would have the potential to affect other land and resource use during the Project lifespan include (Page ii, Section 17, EIS):

- Land clearing, site preparation, construction of facilities and infrastructure
- Transportation of personnel and materials to and from the site

- Process plant and underground operations
- Handling and storage of waste rock, special waste rock, and ore
- Power generation
- Water intakes for potable and process water
- Effluent treatment plant and treated effluent discharge
- Sewage treatment plant and water storage and effluent monitoring ponds
- Additional infrastructure (e.g., camp, maintenance shop, offices)
- Other supporting mining construction, operation, and decommissioning and reclamation activities

Would not the active exclusion of unauthorized people from the Project area also affect other land and resource use?

As part of the pathways analysis, proposed environmental design features and mitigation measures were considered to determine whether effects on the environment could be avoided or reduced to negligible levels, thereby removing the pathway. After mitigation measures were considered, the pathways screening analysis determined that many of the potential pathways from the Project to the environment could be removed from the assessment. However, it was identified that the Project could still adversely affect other land and resource use from the following pathways (Page iii, Section 17, EIS):

- Access to and area available for land and resource use
- Quality of the resource use experience

These pathways were carried forward into the residual effects analysis to determine the potential effects on other land and resource use under two assessment cases: effects of the Project (i.e., Application Case), and combined effects of the Project and the Fission Patterson Lake South Property (i.e., RFD Case). The residual effects analysis considered three measurement indicators:

- Access to, and area available for, land and resource use
- Availability of fish and wildlife for harvesting
- Quality of the resources and the quality of resource use experience

YNLR considers the long-term addition of two work camps in the region to be a potential impact on local fish and wildlife resources, which would potentially reduce the availability of fish and wildlife for harvesting (note that the baseline studies showed that several lakes in the area are showing signs of overharvest).

Access to Land and Resource Use
With mitigations, there would be continued opportunities for other land and resource use with the predicted changes in access to, and area available for, land and resource use from the Project and the Fission Patterson Lake South Property.

Quality of the Resource Use Experience
With mitigations, there would be continued levels of opportunities for other land and resource use with the predicted changes to the quality of the resource use experience from the Project

and the Fission Patterson Lake South Property. This includes incorporating safety mitigation measures to protect users on the access road and Highway 955. Individuals may experience different levels of effects from sensory disturbances and perceptions of effects.

The weight of evidence from the analysis, including consideration of experiences at other uranium operations in northern Saskatchewan where multiple uses remain compatible, predicted that other land and resource use can continue in local areas not affected by the projects; resources equivalent in abundance and quality would continue to be available to resource users. Changes to the aesthetics of other land and resource use would be primarily dependent on proximity to the projects and individual sensitivities. The numbers of resource users potentially affected are limited. Incremental and cumulative effects resulting from the Project, previous and existing developments, and the Fission Patterson Lake South Property on the other land and resource use are predicted to be not significant (Page v, Section 17, EIS).

See above comment on the impact of camp-based workers on fish and wildlife availability. This is potentially significant.

Section 18. Economy (Page 18-1, EIS)

18.2 Component Methods
18.2.1 Incorporation of Indigenous and Local Knowledge
18.2.2.1 Valued Components
18.2.2.2 Measurement Indicators
These sections of the EIS discuss the participation of Indigenous groups, the incorporation of their traditional knowledge, with specific reference to VCs and their measurement.

The Athabasca Denesųłiné were not deemed by NexGen to be a primary Indigenous Group (and were excluded from the LPA) and were thus not afforded the opportunity to sign a fulsome Study Agreement that allowed for participation in a joint working group aimed at supporting the inclusion of Indigenous knowledge into the EA through ongoing dialogue, for the identification of valued components, for the discussion of other important issues (e.g., spatial boundaries and ADKLUO and traditional routes into the project study area, measurement indicators, etc.), for the creation of a community liaison position and for the ultimate development of Benefits Agreement. The greater involvement of Athabasca Denesųłiné within these activities would have allowed for a much more complete exploration of Athabasca Denesųłiné knowledge, land uses, rights and interests and how they might be impacted by the Rook 1 Project and ensured that NexGen was able to better understand and appreciate the uniqueness of the Athabasca Denesųłiné. The exclusion of the Athabasca Denesųłiné from the primary Indigenous group category ensured that they were afforded less attention than other Indigenous peoples. For example, the EIS identified an average of 157 key engagement activities for each primary Indigenous group while the YNLR (and AD communities) had only 29. This is prejudicial and self-perpetuating

18.2.3 Spatial Boundaries

This EIS section notes that for the Economy-associated VCs and related, the Local Study Area (LSA) was determined based on their assessment of effects on economy of Local Priority Area (LPA) communities. Economic programs (e.g., contracting and employment, training, etc.) are focused on LSA/LPA communities. The Regional study area (RSA) consists of the Northern Saskatchewan Administrative District (which includes the whole north of Saskatchewan). Communities and Indigenous Groups in the broader RSA are also expected to experience some direct employment, income, and training benefits from the Project. Many of these types of benefits are also contemplated as part of the Benefit Agreement processes with LSA Indigenous Groups.

NexGen began engaging with communities as early as 2013. Unfortunately, discussions with the Athabasca Denesųłiné did not begin until 2019. Based on the early engagement (e.g., pre-2019), primary communities that were deemed most likely affected by the proposed Project were identified. Then, using these identified communities as a guide, a LPA (local priority area) was established. NexGen engagement activities were focused on primary communities in the LPA. This approach has at least three flaws. First, it ignores or disregards the information provided by the Athabasca Denesųłiné in 2020 that clearly demonstrates their interests in the vicinity of Rook 1. Clearly processes need to respond to the information available. Second, because the inclusion of communities in the LPA (and indeed the geographic extent of the LPA) is based on whether or not they were previously identified means that AD's exclusion is likely self-perpetuating. Since the Athabasca Denesųłiné were not involved in the early stages they could not possibly have been considered nor could the LPA area include them. Third. the proximity of our communities to the project site is downplayed in the EIS by using a road distance measure rather than the well documented cross-country routes our members generally use to access the portion of our territory near the Project. In fact, Fond du Lac is closer to the project site than a number of other groups considered primary!

The YNLR prepared (with financial support from NexGen under a limited Study Agreement) the 2020 Report - Provision of Athabasca Denesųłiné Traditional Knowledge, Land Use and Occupancy Information for the NexGen Rook 1 Project Environmental Assessment – on behalf of the Athabasca Denesųłiné communities including Black Lake Denesųłiné First Nation, Fond du Lac Denesųłiné First Nation, and the Hatchet Lake Denesųłiné First Nation. This study clearly shows that our traditional territory, Treaty, and land use overlap with the LSA and the RSA.

18.2.6 Existing conditions

18.2.6.2 Key Person Interview Program

The EIS discusses a KP interview program that was undertaken as part of the characterization of the existing economic environment. Research for the economic assessment was completed in conjunction with community well-being (Section 19), cultural and heritage resources and Indigenous land and resource use (Section 16), and other land and resource use (Section 17). Key person interviews were conducted between October 2019 and July 2021. A total of 73 interviews were conducted with community members.

To the best of our knowledge, no Athabasca Denesųłiné members participated in the key person interviews. The Athabasca Denesųłiné believe that their categorization as an "other" Indigenous group is incorrect and that with the attributes of a primary Indigenous group, they should be <u>full</u> participants in engagement activities.

18.2.6.3 Other sources of Information

The EIS notes that Indigenous and Local Knowledge was incorporated into the description of existing conditions through community information sessions, JWG meetings, other workshops, etc.

While the Athabasca Denesųłiné were able to provide some information through their IKTLU study and comments on the Project Description, they were not provided the opportunity to provide supporting and supplemental information through JWG meetings, community meetings, workshops, KP Interviews, baseline study, etc.

18.3.6.1 Traditional Economy Participation and Income

The EIS notes that the Athabasca Denesųłiné use a variety of wildlife, plants and resource and that barren ground caribou are central to harvesting and cultural identity with footnote that says:
"Traditional knowledge collected on the Beverly and Qamairjuaq caribou indicate that at one time the barren ground caribou ranges extended to areas south of the Project. Telemetry data from 1993 to 2012 indicate that the ranges have shifted and are now largely found north of the Athabasca Denesuline communities" (footnote by NexGen on 18-58)" NexGen attributes this information to YNLR ADKLUO Study report.

The YNLR prepared (with financial support from NexGen under a limited Study Agreement) the 2020 Report - Provision of Athabasca Denesųłiné Traditional Knowledge, Land Use and Occupancy Information for the NexGen Rook 1 Project Environmental Assessment – on behalf of the Athabasca Denesųłiné communities including Black Lake Denesųłiné First Nation, Fond du Lac Denesųłiné First Nation, and the Hatchet Lake Denesųłiné First Nation. This study clearly shows that our traditional territory, Treaty, and land/resource use overlap with the LSA and the RSA.

The YNLR report (page 5) references (and includes) a map prepared by the Beverly and Qamanirjuaq Caribou Management Board that shows the caribou range based on a variety of information sources. It is not intended to be a map of shifting range. In fact, the Board provides an interpretation note on their map that reads "It is important to note that the map is based on telemetry locations for a small number of adult female caribou that have been collared and tracked by satellite for a limited time period. As a result of these limitations, an area mapped without caribou locations does not necessarily indicate a lack of use or low importance to caribou. It could simply be an area where collared animals have not been located and could potentially be an area of high use by non-collared animals". The inaccuracies in the EIS footnote should be corrected.

18.3.7 Education and Training

18.3.8 Local Business

18.4 Project Interactions, Mitigations, and Benefit Enhancements

The EIS discusses education and training, local business, and project interactions, mitigations, and benefits.

The Athabasca Denesųłiné believe that their categorization as an "other" Indigenous group is incorrect (and hence AD are excluded from the LPA) and that as they have the attributes of a primary Indigenous group, they should be <u>full</u> participants in engagement activities and programs related to education and training, business and contracting opportunities, mitigation implementation and other benefits.

Section 18 of the Environmental Impact Statement (EIS) provides a comprehensive assessment of potential effects of the Rook I Project (Project) on the economy. This assessment included consideration of both potential effects from the Project and cumulative effects from the Project and other reasonably foreseeable developments
(RFDs). The economy assessment used widely accepted scientific practices and incorporated Indigenous and Local Knowledge. Economy represented a valued component (VC) in the Environmental Assessment (EA); the selection was based on the economy being a major social determinant of health in the overall well-being of individuals and communities. The selection was also informed by Indigenous and Local Knowledge obtained from Indigenous Knowledge and Traditional Land Use Studies and Joint Working Groups, and feedback received during community engagement sessions. The economy assessment provided information that was used to support the valued component assessment of community well being (Page I, Section 18, EIS).

The local study area (LSA) focused on the communities that are anticipated to experience most of the direct effects on the economy related to the Project; these effects include employment, training, and income opportunities. The regional study area (RSA) represents the area where potential cumulative effects of the
Project and RFDs could occur and aligns spatially with the Northern Saskatchewan Administrative District. Communities and Indigenous Groups in the LSA include (Page i):

- Clearwater River Dene Nation
- Clearwater Clear Lake (Métis Nation – Saskatchewan name for Northern Region 2)
- La Loche
- Birch Narrows Dene Nation
- Turnor Lake
- Birch Narrows Dene Nation / Dillon
- Buffalo Narrows
- Bear Creek
- Descharme Lake
- Garson Lake
- Black Point
- Michel Village
- St. George's Hill

The LSA is characterized by a dispersed settlement pattern of primarily small and highly remote Indigenous communities with a total population of about 6,000 in 2016. Buffalo

Narrows, with an estimated population 1,110 people, and La Loche, with an estimated population 2,372, are the two urban centres in the LSA. Buffalo
Narrows is located on Highway 155, approximately 200 km north of Green Lake and 100 km south of La Loche. La Loche is located at the northern terminus of Highway 155 and the southern terminus of Highway 955, 300 km north of Green Lake. The LSA is economically stagnant, with a general lack of economic opportunity due to no suitably sized primary industry since the decline of the fur industry in the 1960s. Labour force participation and employment rates in communities are very low, with employment concentrated primarily in the public sector: government-funded service sectors (e.g., health, education) and Crown corporations. There are lower employment rates in common rural industries than in Saskatchewan as a whole, including agriculture, forestry, fishing and hunting, manufacturing, and retail trade. There is also limited tourism in the LSA. Fishing and commercial forestry activities contribute to the LSA economy, though to a limited scale. There are some individuals employed in mining; however, the positions are fly-in/fly-out or drive-in/drive-out to operations outside the LSA. Overall, there are insufficient employment opportunities to service the needs of the population, resulting in high unemployment. Average personal and household incomes for the LSA are lower than for Saskatchewan as a whole, with high rates of income derived from government transfers. Participation in the traditional economy provides important opportunities to support the livelihoods of individuals and communities in addition to cultural and spiritual benefits (Page ii, Section 18, EIS).

The NexGen and Fission mines have a huge opportunity to significantly improve the socio-economic conditions in this region. YNLR welcomes this and is available to assist in any way with these developments, provided the land and waters are protected from long-term damage.

In Saskatchewan, traditional food harvesting (hunting, fishing, and gathering of wild plants) is an important part of the traditional food systems and food security of First Nations communities (Chan et al. 2018). The First Nations Food Nutrition and Environment Study (Chan et al. 2018) found that almost all Indigenous adults in
Saskatchewan (i.e., 94%) reported eating traditional foods as part of their diet. Of the population included in the survey, Indigenous adults in Saskatchewan ate land mammals (i.e., 83%), berries (i.e., 78%), fish (i.e., 51%), wild birds (i.e., 46%), and wild plant foods and teas (i.e., 43%) (Chan et al. 2018). As described by tradition-oriented CRDN members, there are no practical and affordable nutritious (e.g., non-processed and nutrient-dense) food replacements available to them through outside sources such as the local Northern store (TSD V.2: CRDN). Furthermore, these food replacements are neither desired nor considered culturally appropriate (Page 18-55, EIS):

Mostly we live on that [wild meat], we don't use store meat actually. The only thing we use is dry goods from the store, and for the meat it's wild food only (TSD V.2: CRDN). We don't want to live off of store food. Because that's all manufactured stuff you know. Like we go out in the bush, we get a moose. Nobody gave it antibiotics or injections, like, to make it grow really fast, you know. It's all natural. But in the store, that's where all these diseases come. They do that to mass produce (TSD V.2: CRDN).

Birch Narrows Dene Nation community members have estimated 80% or more of the people in the community participate in some form of traditional economic activity (BNDN-JWG 2021a). Birch Narrows Dene Nation members have described the importance of harvesting wild foods in feeding family members and supporting households and the broader community by sharing food with Elders and other community members (TSD II). At times in the past, a BNDN member noted they relied on very little store-bought food (BNDN-JWG 2021a). Income from commercial trapping and fishing (TSD II) has been noted to be important for BNDN members. A BNDN member commented that (Page 18-57, EIS):

Because you're working in a mine doesn't mean you are going to discontinue [traditional activities]. In fact, because you have income, you're able to create that ability to be out there and to build cabins. (BNDN-JWG 2021a).

Similarly, Métis Nation–Saskatchewan citizens have noted that hunting, trapping, fishing, and plant gathering has helped preserve the survival of families and that the land is an integral part of their livelihoods. Métis Nation–Saskatchewan members provided estimates that, on average, 70% of their food comes from hunting, trapping, fishing, and gathering (TSD IV: MN-S). Fishing is noted as an activity that supports both personal and commercial economic activity (Page 18-58, EIS).

The key point here is the high value of the land as a natural food and medicine resource. While the new mine will provide an excellent opportunity for employment, its employment impact on the total population of the LSR is relatively small, which highlights the actual value of the land to provide sustenance. The natural long–term productivity of the land must therefore be protected.

An analysis was completed to evaluate Project components and activities and associated effects pathways that could potentially affect economy; this analysis included consideration of both adverse and beneficial effects. The evaluation also considered similar combined effects from the Fission Patterson Lake South Property, the identified RFD for the economy assessment. Project characteristics that have the potential to affect the economy during the Project lifespan include (Page iii, Section 18, EIS):

- Estimated capital expenditures of $1.3 billion over the four years of Construction
- A peak construction workforce of approximately 350 workers, with actual on-site labour requirements varying throughout Construction
- Typical annual operating spending of $167 million
- An operations workforce, including a forecasted 486 direct jobs during the operating peak and approximately 425 direct jobs during a typical year of Operations
- Spending during Closure
- Aspirational targets established by NexGen Energy Ltd. (NexGen) for hiring workers from LSA communities (i.e., 75%) and external spending awarded to LSA and RSA businesses (i.e., 30%)

Proposed mitigation and enhancement measures, such as the delivery of certified and accredited training and recruitment programs, development of culturally sensitive employment policies, and increasing involvement of local businesses within the LSA would reduce adverse

effects and enhance beneficial effects on the economy. In addition to these mitigation and enhancement measures, NexGen is in the process of negotiating Benefit Agreements with primary Indigenous Groups in the LSA and has signed agreements with three groups. Although details of these agreements are confidential and have not been finalized for all Indigenous Groups, they are premised on commitments including proactively engaging with local communities; supporting the economic participation of affected communities; seeking to provide opportunities resulting in sustainable, lasting benefits to local communities beyond the Project lifespan; and providing clear and timely information to those who have a direct interest in the Project. Implementation of items agreed to in Benefit Agreements is also expected to reduce adverse effects and enhance beneficial effects on the economy. After mitigation measures were considered, the pathways analysis determined that all potentially adverse pathways from the Project to the environment could be removed from the assessment. Therefore, no pathways were carried forward into the residual effects analysis (Page iii).

YNLR supports this initiative and is interested in entering cooperative agreements with both NexGen and Fission.

Project Benefits Summary (Page iv, Section 18, EIS)
Overall, the proposed Project is expected to result in substantial net positive economic outcomes for the LSA and RSA, which would have cascading effects on a range of socio-economic variables, including education and training, health, and well-being. Specific benefits from the proposed Project would include increased employment opportunities for LSA residents. During Construction, the Project could result in between 8,200 and 10,500 direct, indirect, and induced full-time equivalent (FTE) positions over the four-year period. During Operations, direct, indirect, and induced employment is estimated to range between 950 and 1,200 FTE positions during a typical operating year. Should the aspirational target of 75% local employment be achieved, during Operations, an estimated 365 positions would be filled by members of the LSA. The proposed Project would provide a substantial positive benefit through increased income opportunities, particularly for LSA residents. Construction labour costs are estimated to make up approximately $384 million, or 30% of the total capital cost of the Project. The total direct, indirect, and induced labour income for Construction could range between $730 million and $885 million. During Operations, direct labour spending is estimated to be approximately $55 million during a typical operating year. The total direct, indirect, and induced
labour income for a typical operating year could range between $94 million and $112 million. The Project would provide positive benefits for educational attainment in the LSA through increased education and training opportunities for local residents. NexGen would provide training opportunities for the workforce. In addition to obtaining necessary skills to acquire employment, this training could allow employees to advance to more senior and higher-income employment within the organization and improve their ability to obtain other employment in the future. Training opportunities could also result in a higher-skilled local workforce, which would have benefits for both the Project and the LSA as a whole. This benefit could extend beyond the Project lifespan. The proposed Project would provide a positive benefit through increased business and contracting opportunities throughout Construction and Operations. Benefits would continue during Closure, but at a decreased level. NexGen would evaluate opportunities to both procure goods and services from existing sources in the LSA and develop

and expand local business capacity. These opportunities are anticipated to result in new revenue sources for existing local businesses and the facilitation of new business start-ups. Local study area residents noted a strong interest in expanding local business opportunities, including ownership interests in businesses. Overall, the Project is estimated to have a direct, indirect, and induced impact on national GDP of up to $1.3 billion over the course of Construction, and up to $1.1 billion in a typical year of Operations. The Project would also generate benefits through the payment of taxes and royalties to the governments of Saskatchewan and Canada. These government revenue sources would include uranium royalties, resource surcharges, mineral surface lease payments, corporate income tax, and individual income tax. The total estimated direct payments to government for a typical operating year are estimated at $288.5 million for Saskatchewan and $103.9 million for Canada. Benefit Agreements with primary Indigenous Groups would include payments based on revenue generated throughout the life of the Project.

This project, combined with the benefits from Fission, could make a substantial difference to people's lives in the region.

The estimated labour income associated with the Construction workforce would be approximately $532 million (Appendix 18B, Table18B-1) 33. Surface contractor labour rates were estimated based on Saskatchewan construction trade agreements (NexGen 2021c). In addition to direct income opportunities (i.e., income for
Project employees), the Project is expected to have positive indirect and induced income effects (e.g., income for employees of businesses that provide supplies and services to the Project, increased income for local retail and hospitality workers as a result of Project employees having more disposable income and spending it locally). Input/output modeling estimated the total direct, indirect, and induced labour income across Canada for Construction could be between approximately $730 million and up to $885 million including up to $672 million for Saskatchewan (Appendix 18B, Table 18B-1). Increased disposable income can have benefits by increasing purchasing power and improving the ability to save and adapt to changing economic circumstances, which can influence community well-being (Section 19). Increased wage income can also improve the ability for individuals and communities to participate in the traditional economy by purchasing equipment to increase accessibility (e.g., boat) and tools (e.g., firearms; Section 18.3.6.1; BRDN-JWG 2021a; BNDN-JWG 2021a). It is acknowledged that access to increased income can also have a detrimental effect on community well-being due a range of factors including inappropriate spending and increased income disparity between households (Section 19.4.3).

Income opportunities will provide the ability for individuals and communities to purchase equipment with which to increase lake and forest accessibility, and thereby increase harvest pressure on the area's natural resources.

Monitoring and follow-up would be conducted to confirm effects predictions and address potential uncertainty. Monitoring would also be performed to track progress against long-term targets and identify opportunities to further enhance outcomes. Follow-up and monitoring programs would be used to (Page v):

- Monitor progress on achieving employment and contracting targets and identify opportunities to improve employment and contracting outcomes
- Maintain ongoing communication and dialogue with local communities to identify and resolve issues
- Contribute to the overall continual improvement of the Project

In Benefit Agreements with Indigenous Groups, NexGen has committed to establishing an Implementation Committee, which would facilitate an effective, ongoing working relationship between NexGen and the Indigenous Group, and verify that all commitments made within the Benefit Agreements are realized.

YNLR approves of these arrangements and looks forward to contributing towards the realization of sustainable development in the north.

The Project would generate payments to the governments of Saskatchewan and Canada through royalties, personal and corporate income taxes, and mineral surface leases. This would provide increased revenues to support government spending. Figure 18.4-7 sets out the estimated payments for a typical year during
Operations. Estimates of federal and provincial personal income taxes were calculated based on median effective tax rates reported by Statistics Canada (Appendix 18B, Table 18B-4 and Table 18B-5). Estimates of resource surcharge, basic royalties, profit royalties, and corporate income tax were prepared as part of the Project Feasibility Study. Estimated direct payments to governments do not include payments that may be made pursuant to an MSLA. NexGen does not currently hold surface rights for the proposed Project footprint. Surface rights would be negotiated as part of an MSLA with the Province of Saskatchewan following review and approval of the EA, if received. The estimated payments of $288.5 million would be approximately 2.2% of the $12.9 billion in total revenue reported by the Government of Saskatchewan for the fiscal year ending in 2020 (Government of Saskatchewan 2020b). In addition to payments to the provincial and federal governments, the Benefit Agreements include payments to
Indigenous Groups based on revenue generated throughout the Project lifespan. The Benefit Agreements are negotiated agreements between each primary Indigenous Group and NexGen, the contents of which are confidential (Page 18-86, EIS).

The estimated annual payments by the mine to the Provincial and Federal Governments are $288.5M and $103.9M respectively. The economic output also noted that individual Benefit Agreements would include payments to Indigenous Groups although the terms of the agreements will be confidential. <u>There is increased opportunity for the two levels of Government to increase community programs in the local area as part of receiving the increased income tax/royalty revenue</u>.

Section 19. Community Well-Being (Page 19-1, EIS)

19.2.1 Incorporation of Indigenous and Local Knowledge

The EIS notes that NexGen included Indigenous and Local Knowledge in community well-being through:

- Selection of VCs
- Characterization of existing conditions by perspectives from Indigenous Groups, and LPA communities through key person Interviews, other engagement activities (community information, JWG meetings, workshops)
- Perspectives shared by Indigenous Groups and LPA community members in the topics of
- Community context and cultural continuity, including the maintenance of traditional ways of life and the intergenerational transmission of knowledge
- Health, including mental health and addictions, and traditional diets
- Housing, recreation, emergency and protection services, and transportation infrastructure
- Educational facilities and education levels
- Employment and community economics and
- The well-being of the community
- Project Interactions and Mitigation: Indigenous and Local knowledge informed the scoping of Project Interactions, pathway analyses, and consideration of mitigation measures…observations and experiences of land users related to the effects from industry, including mining activities on …measurement indicators/effect pathways
- Monitoring, Follow-Up, and Management
  In particular, the Primary Indigenous groups involved in JWGs and community information sessions, site tours, other formal and informal meetings, workshops with specific groups, environmental and socio-economic baseline data collection

The Athabasca Denesųłiné were not deemed by NexGen to be a primary Indigenous Group (and were excluded from the LPA) and were thus not afforded the opportunity to sign a fulsome Study Agreement that allowed for participation in a joint working group aimed at supporting the inclusion of Indigenous knowledge into the EA through ongoing dialogue, for the identification of valued components, for the discussion of other important issues (e.g., spatial boundaries and ADKLUO and traditional routes into the project study area, measurement indicators, etc.), for the creation of a community liaison position and for the ultimate development of Benefits Agreement. The greater involvement of Athabasca Denesųłiné within these activities would have allowed for a much more complete exploration of Athabasca Denesųłiné knowledge, land uses, rights and interests and how they might be impacted by the Rook 1 Project and ensured that NexGen was able to better understand and appreciate the uniqueness of the Athabasca Denesųłiné. The exclusion of the Athabasca Denesųłiné from the primary Indigenous group category ensured that they were afforded less attention than other Indigenous peoples. For example, the EIS identified an average of 157 key engagement activities for each primary Indigenous group while the YNLR (and AD communities) had only 29. This is prejudicial and self-perpetuating

19.2.2 Valued Components, Measurement Indicators, and Assessment Endpoints
19.2.2.1 Valued Components
19.2.2.2 Measurement Indicators
These sections of the EIS discuss the participation of Indigenous groups, the incorporation of their traditional knowledge, with specific reference to VCs and their measurement.

The Athabasca Denesųłiné were not deemed by NexGen to be a primary Indigenous Group (and were excluded from the LPA) and were thus not afforded the opportunity to sign a fulsome Study Agreement that allowed for participation in a joint working group aimed at supporting the inclusion of Indigenous knowledge into the EA through ongoing dialogue, for the identification of valued components, for the discussion of other important issues (e.g., spatial boundaries and ADKLUO and traditional routes into the project study area, measurement indicators, etc.), for the creation of a community liaison position and for the ultimate development of Benefits Agreement. The greater involvement of Athabasca Denesųłiné within these activities would have allowed for a much more complete exploration of Athabasca Denesųłiné knowledge, land uses, rights and interests and how they might be impacted by the Rook 1 Project and ensured that NexGen was able to better understand and appreciate the uniqueness of the Athabasca Denesųłiné. The exclusion of the Athabasca Denesųłiné from the primary Indigenous group category ensured that they were afforded less attention than other Indigenous peoples. For example, the EIS identified an average of 157 key engagement activities for each primary Indigenous group while the YNLR (and AD communities) had only 29. This is prejudicial and self-perpetuating.

19.2.3 Spatial Boundaries
The EIS (See Figure 19.2-2, p19-16) places focus on the larger communities in the LSA (with its relationship to the LPA).
The Community Wellbeing RSA chosen is the Northern Saskatchewan Administrative District which includes all of Northern Saskatchewan.

NexGen began engaging with communities as early as 2013. Unfortunately, discussions with the Athabasca Denesųłiné did not begin until 2019. Based on the early engagement (e.g., pre-2019), primary communities that were deemed most likely affected by the proposed Project were identified. Then, using these identified communities as a guide, a LPA (local priority area) was established. NexGen engagement activities were focused on primary communities in the LPA. This approach has at least three flaws. First, it ignores or disregards the information provided by the Athabasca Denesųłiné in 2020 that clearly demonstrates their interests in the vicinity of Rook 1. Clearly processes need to respond to the information available. Second, because the inclusion of communities in the LPA (and indeed the geographic extent of the LPA) is based on whether or not they were previously identified means that AD's exclusion is likely self-perpetuating. Since the Athabasca Denesųłiné were not involved in the early stages they could not possibly have been considered nor could the LPA area include them. Third. the proximity of our communities to the project site is downplayed in the EIS by using a road distance measure rather than the well documented cross-country routes our members generally use to access the portion of our territory near the Project. In fact, Fond du Lac is closer to the project site than a number of other groups considered primary!

The YNLR prepared (with financial support from NexGen under a limited Study Agreement) the 2020 Report - Provision of Athabasca Denesųłiné Traditional Knowledge, Land Use and Occupancy Information for the NexGen Rook 1 Project Environmental Assessment – on behalf of the Athabasca Denesųłiné communities including Black Lake Denesųłiné First Nation, Fond du Lac Denesųłiné First Nation, and the Hatchet Lake Denesųłiné First Nation. This study clearly shows that our traditional territory, Treaty, and land use overlap with the LSA and the RSA.

19.2.5 Assessment Cases

Figure 19.2-3 ***Map for Reasonably Foreseeable Development in the Regional Study Area shows but does not highlight the Athabasca Denesųłiné communities also in the Regional Study Area.***

19.2.6 Existing Conditions

The EIS notes that the existing conditions were drawn from primary sources (i.e., KP interviews, engagement activities, JWGs) and secondary data sources (i.e., secondary literature, previous EAs).

NexGen began engaging with communities as early as 2013. Unfortunately, discussions with the Athabasca Denesųłiné did not begin until 2019. Based on the early engagement (e.g., pre-2019), primary communities that were deemed most likely affected by the proposed Project were identified. Then, using these identified communities as a guide, a LPA (local priority area) was established. NexGen engagement activities were focused on primary communities in the LPA. This approach is flawed as discussed above.

To the best of our knowledge, no Athabasca Denesųłiné members participated in the key person interviews. The Athabasca Denesųłiné believe that their categorization as an "other" Indigenous group is incorrect and that with the attributes of primary Indigenous group, they should be <u>full</u> participants in engagement activities.

19.2.7 Project Interactions and Mitigations

The EIS discusses project interactions, mitigations, and benefits as relates to community wellbeing.

The Athabasca Denesųłiné believe that their categorization as an "other" Indigenous group is incorrect (and hence AD excluded from the LPA) and that with their attributes of a primary Indigenous group, they should be <u>full</u> participants in engagement activities and programs related engagement, mitigation implementation and other benefits.

Section 20. Summary of Residual Project and Cumulative Effects (Page 20-1, EIS)

20.1 Introduction
20.2 Environmental Assessment Approach and Methods
20.2.1 Scoping and Pathways Analysis

The EIS describes the development of VCs including assessment endpoints and measurement indicators.

The Athabasca Denesųłiné were not deemed by NexGen to be a primary Indigenous Group (and were excluded from the LPA) and were thus not afforded the opportunity to sign a fulsome Study Agreement that allowed for participation in a joint working group aimed at supporting the inclusion of Indigenous knowledge into the EA through ongoing dialogue, for the identification of valued components, for the discussion of other important issues (e.g., spatial boundaries and ADKLUO and traditional routes into the project study area, measurement indicators, etc.), for the creation of a community liaison position and for the ultimate development of Benefits Agreement. The greater involvement of Athabasca Denesųłiné within these activities would have allowed for a much more complete exploration of Athabasca Denesųłiné knowledge, land uses, rights and interests and how they might be impacted by the Rook 1 Project and ensured that NexGen was able to better understand and appreciate the uniqueness of the Athabasca Denesųłiné. The exclusion of the Athabasca Denesųłiné from the primary Indigenous group category ensured that they were afforded less attention than other Indigenous peoples. For example, the EIS identified an average of 157 key engagement activities for each primary Indigenous group while the YNLR (and AD communities) had only 29. This is prejudicial and self-perpetuating.

Section 20 of the Environmental Impact Statement provides a tabular summary of the classification or characterization of predicted residual effects on valued components (VCs) of the biophysical, cultural, and socio-economic environments that cannot be avoided or mitigated through the relocation or re-design of the proposed Project, or through commitments made by NexGen. The summary includes a determination of significance of the residual Project effects (i.e., Application Case) and cumulative effects (i.e., Reasonably Foreseeable Development [RFD] Case) for VCs. Residual effects are classified using standard assessment criteria and provide the foundation for determining the significance of adverse effects (Table 20.3-1).

Following the residual effects analysis, the residual effects for each VC and intermediate component were classified or characterized using the following effects criteria (Page 20-2,EIS):

- Direction: adverse (i.e., negative), neutral (i.e., no change), or positive (i.e., improvement) effect
- Magnitude: the intensity of the effect, or the size, degree, or level of change
- Geographic extent: the area, distance covered, or zone of the effect
- Duration: the amount of time from the beginning of an effect to when the effect is reversed
- Reversibility: whether the effect will stop and be reversed, or is permanent
- Frequency: how often the effect occurs during the assessment period
- Probability of occurrence: defined as unlikely, possible, probable, or certain

The classification of residual effects was then used to determine the significance for VCs; this determination considered whether the significance threshold defined by the assessment endpoint for a VC would be exceeded. Significance determination was binary, such that adverse effects were either deemed significant or not significant for each VC, and was supported by a reasoned narrative.

The residual effects (~ effects remaining after mitigation) summary in Table 20.3-1 has been simplified below. Note that in accordance with the precautionary principle, the highest rankings within Table 20.3-1 have been included:

VC	Direction	Magnitude	Duration	Reversible?	Project Significant?	Cumulative Significant?
Climate Change	Negative	Low	Perm	No	No	No
Fishes (4)	Negative	Low	Perm	No	No	No
Uplands	Negative	Low	Perm/Long	Maybe	No	No
Wetlands	Negative	Low	Perm	No	No	No
Riparian	Negative	Low	Perm/Long	Maybe	No	No
Indigenous Use Plants	Negative	Low	Perm/Long	Maybe	No	No
Woodland Caribou	Negative	High	Perm/Long	Maybe	Yes	Yes
Moose	Negative	Low	Perm/Long	Maybe	No	No
Grey Wolf	Negative	Moderate	Perm/Long	Maybe	No	No
Black Bear	Negative	Moderate	Perm/Long	Maybe	No	No
Beaver	Negative	Low	Perm/Long	Maybe	No	No
Little Brown Bat	Negative	Low	Perm/Long	Maybe	No	No
Olive-sided Flycatcher	Negative	Low	Perm/Long	Maybe	No	No
Rusty Blackbird	Negative	Low	Perm/Long	Maybe	No	No
Goldeneye	Negative	Low	Perm/Long	Maybe	No	No
Mallard	Negative	Low	Perm/Long	Maybe	No	No
Canada Toad	Negative	Moderate	Perm/Long	Maybe	No	No
Human Health	Negative	Low	Perm	No	No	No
Indigenous Land Use	Negative	Moderate	Perm/Long	Maybe	No	No
Other Land Use	Negative	Low	Long	Yes	No	No
Community Well-Being	Negative	Low	Long	Yes	No	No

From this, it can be seen that all VCs are predicted to be adversely affected (i.e. a negative direction from assessment endpoints) by the Project. Moderate to high effects are predicted for 5 VCs, including indigenous land use and (notably) four wildlife species. The woodland caribou is predicted to experience a high magnitude of effect. The duration of residual effects is predicted to be permanent to long term for all VCs, with only two (Other Land Use and Community Well-Being) having a high certainty of reversibility. Despite this, other than woodland caribou, all residual effects to VCs are ranked as non-significant, either from the Project or cumulative effects perspectives.

To summarize, the majority of VCs will experience adverse residual effects, which are mostly low in magnitude but relatively long lasting with a relatively low certainty of reversal. This seems at odds with the non-significant rankings assigned to most VCs, and points to potential errors associated with multiple tests and the binary nature of their assigned significance. All other things being equal, one would predict some of the significance rankings to be incorrect simply based on chance alone. YNLR also notes that the human impacts associated with two work camps have been largely ignored by the EIS. These workers will place increased harvesting pressure on the fish and wildlife resources in the area, which would elevate residual effects, especially for the fish, which are at abnormally low population levels in all of the lakes surveyed (Section 11).

Furthermore, the residual effects summary table (Page 20-5, EIS) states that the effect on residence moose populations is "not significant" with the rationale "moose are highly adaptable, highly mobile, and can accommodate moderate to high levels of anthropogenic disturbance" Without further qualification, this is a naïve statement or just categorically wrong, which brings the ranking of Not Significant into question. In reality, following the development and increased human access to the area will require additional regulatory measures if the local moose population is to remain sustainable.

The summary table also lists the change in impact of indigenous use of the area as "not significant". While access to the land on a broad scale does not change dramatically, the availability of wildlife, fish and perhaps traditional use plants will not be sustainable and therefore will be degraded with respect to local resource use. The increase in access due to increased purchasing power for off road equipment will allow for increased access in the general area.

For these and other reasons, YNLR believes that the residual analyses are collectively over optimistic, and reinforce the need for open, transparent, and statistically robust monitoring programs and follow up, which includes meaningful dialogue with the indigenous people of the region.

Section 21. Accidents and Malfunctions (Page 21-1, EIS)

Section 21 of the Environmental Impact Statement (EIS) outlines the potential accident and malfunctions that could occur in association with the Rook I Project (Project) and describes the potential effects on the environment and public safety.
An accident is defined as any unintended event, including operating errors, equipment failures, and other mishaps, the consequences, or potential consequences of which are significant from the point of view of protection or safety. A malfunction is defined as a failure in the normal functioning of equipment, infrastructure, or systems that could result in potentially significant consequences. These two risks are assessed separately from "day-to-day" activities that are addressed throughout the EIS. The assessment considered two distinct evaluations, which were:

- On-site accidents and malfunctions, covering the extent of the Project footprint and associated access road to its junction with Highway 955
- Transportation-related risks, involving transport vehicles that may occur beyond the access road junction with Highway 955 along the transportation route (i.e., Highways 955 and 155)

The regional location and setting were key factors in the identification of receptors that could be affected by accidents or malfunctions. The selection of aquatic, terrestrial, and human receptors was based on an understanding of how people use the land in the area surrounding the Project and incorporated information from
Indigenous Knowledge and Traditional Land Use Studies, community information sessions, and Joint Working Group meetings. The assessment considered the transportation route of the Project. The setting of this route is remote, and transportation does not traverse any cities or otherwise densely populated areas. Several communities are located along the route including La Loche, Bear Creek, Buffalo Narrows, Beauval, and Green Lake (Page i, Section 21, EIS).

The general approach for the assessment of accidents and malfunctions and transportation-related risks associated with the Project included:

- Hazard identification
- Environmental design feature and mitigation evaluation
- Risk measurement, as a function of likelihood and consequence
- Risk evaluation

YNLR supports the level of consultation with indigenous people on this important issue, and expects the dialogue to be ongoing.

Six hazard scenarios were selected as bounding scenarios for more detailed risk analysis. These scenarios were:

- An aquatic (i.e., to water) release of uranium concentrate and radioactivity from a traffic accident at or near the access road bridge crossing of the Clearwater River
- An aquatic release of fuel or hazardous chemicals from a traffic accident at or near the access road bridge crossing of the Clearwater River

- An atmospheric (i.e., to air) release of uranium and radioactivity from a fire or explosion involving equipment or vessels containing uranium-bearing solutions in the solvent extraction building
- A terrestrial (i.e., to ground) release of uranium and radioactivity from a tailings transfer pipe or pump failure at surface
- A terrestrial release of uranium and radioactivity from untreated effluent transfer pipe failure at the surface
- An atmospheric release of sulphur dioxide from an acid plant tail gas scrubber failure

After the detailed risk analysis was complete, the resultant risk level rating for each of these scenarios was assessed to be Low for all scenarios except for the acid plant tail gas scrubber failure scenario, which was deemed to be Low to Moderate risk. The Low to Moderate risk scenario was deemed to represent a tolerable level of risk in consideration of proposed safeguards and design features that reduce the risk level to ALARP.

Hazard identification was also undertaken as part of a detailed technical assessment, and six transportation hazard scenarios were identified and evaluated in the hazard identification analysis. These scenarios were:

- An aquatic release of uranium concentrate or other hazardous materials
- A terrestrial release of uranium concentrate or other hazardous materials
- An atmospheric release of uranium concentrate or other hazardous materials
- A transportation accident scenario involving a vehicle-pedestrian collision
- A transportation accident scenario involving a vehicle-wildlife collision.

After the detailed risk analysis was complete, the resultant risk level rating was assessed to be Low for all scenarios except for the transportation accident scenario involving a vehicle-pedestrian collision, which was deemed to be a Moderate risk. The Moderate risk scenario was deemed to represent a tolerable level of risk in consideration of proposed safeguards that reduce the risk level to ALARP.

YNLR believes that a collision with wildlife is not unlikely. Did NexGen investigate any relevant data that SGI might have on this matter?

The potential accident and malfunctions hazards associated with the Project, and the effectiveness of designs and mitigations, would continue to be assessed according to the risk management processes described in the Integrated Management System Manual and the Environmental Protection Program, and in accordance with provincial, Canadian Nuclear Safety Commission, and other regulatory requirements.

Good.

Section 22. Assessment of Effects of the Environment on the Project (Page 22-1, EIS)

Section 22 of the Environmental Impact Statement (EIS) assesses effects on the Rook I Project (Project) that may occur in association with natural hazards (e.g., extreme weather events, wildfires, seismic events) and influences of nature, including climate change. The assessment included identification of mitigation measures that would be implemented to reduce or eliminate potential risks. The assessment of effects of the environment on the Project used a standard, structured risk assessment approach, and incorporated Indigenous and Local Knowledge.

The regional location and setting are key factors in the identification of natural hazards that may affect the Project. Seven natural hazard categories were deemed to have the potential to cause adverse effects on the Project; these were:

- Wildfire
- Drought
- Major precipitation events
- Severe snowstorms
- Tornadoes/severe thunderstorms
- Extreme temperatures
- Seismic events

With the exception of seismic events, climate change has the potential to alter the occurrence and severity of these natural hazards from changes in future precipitation and temperature regimes, which would modify how weather-related hazards could affect the Project. Therefore, understanding the current climate and predicting future climate trends in the regional setting was undertaken to support the evaluation of Project design parameters (Page i, Section 22, EIS).

The general approach for the assessment of effects of the environment on the Project included:

- Natural hazard scenario identification
- Environmental design feature evaluation
- Risk measurement, as a function of likelihood and consequence
- Risk evaluation

Natural hazards in the regional setting of the Project were identified using publicly available information, the knowledge base of the Project team, and information received through engagement. The identification process entailed a review of published natural hazard frequencies, experience and case studies at similar types of operations in similar environmental settings, and scientific judgement based on the regional environment. The likelihood and consequence of each hazard scenario were combined to assign an overall risk level to each scenario of either High, Moderate, or Low. For scenarios that were classified as with a risk level of High, additional mitigation measures were required to lower the severity of the potential effects of the environment on the Project. For scenarios with a Moderate or Low

risk level, the risk was considered tolerable if risk reduction activities would reduce the risk associated with these scenarios to As Low as Reasonably Practicable (ALARP).

The results of the assessment indicated that the overall risk level associated with most hazard scenarios was Low, except for three hazard scenarios where the overall risk levels were Moderate; these were associated with wildfires and extreme temperatures (Page ii, Section 22, EIS).

Wildfire
The specific wildfire hazard scenarios with a risk level of Moderate included:

- Fire reaching primary fuel and liquified natural gas storage and the surface explosives magazine
- Damage to, or loss of, Project infrastructure

The hazards of smoke from wildfires could also be considered.

Section 23. Summary of Mitigation, Monitoring and Follow-Up Programs (Page 23-1, EIS)

The purpose of Section 23, Summary of Mitigation, Monitoring, and Follow-Up Programs of the EIS is to summarize (for ease of reference) the Project design features, mitigation measures, management programs and plans, and monitoring and follow-up programs and to provide an associated list of Project commitments proposed by NexGen. This section also outlines how mitigation was incorporated within the pathway analysis, and how monitoring and follow-up programs would verify effects predictions and mitigation effectiveness (i.e., performance), address uncertainties associated with the effects predictions, identify any unanticipated effects, and provide feedback for the implementation of adaptive management, if necessary, to further limit effects (Page 23-4, EIS). Mitigation, monitoring, and follow-up programs would be implemented and maintained throughout all phases of the proposed Project. The temporal scope of the assessment focuses on the 43-year period from initial Construction to the end of Decommissioning and Reclamation (i.e., Closure) as defined by the following Project phases (Page 23-4, EIS):

- Construction ~ 4 years
- Operations ~ 24 years
- Decommissioning and Reclamation ~ 15 years

As described throughout the EIS, NexGen has been and remains committed to providing clear, ongoing, and timely information as it relates to Project activities throughout all phases of the Project. Moving forward, the Indigenous and Public Engagement Program would provide a platform for two-way dialogue and meaningful engagement with the goal of disclosing information and maintaining relationships with local Indigenous Groups and communities, as well as other people and groups interested in the Project. The Indigenous and Public Engagement Program would build on the programs carried out to date as described in Section 2.5, Engagement Approach. NexGen recognizes that Indigenous Groups and the public have an interest in understanding and participating in decisions that affect them, and would continue to

proactively seek, engage in, and support meaningful discussion on issues and opportunities related to the Project throughout all phases. The Indigenous and Public Engagement Program would contain a grievance mechanism to monitor and respond to complaints or concerns. Measures could then be developed and implemented as part of follow-up monitoring to mitigate concerns.

YNLR is ready to continue working on a long-term, collaborative, and mutually beneficial relationship with NexGen.

A summary of environmental design features and mitigation measures for the Project are provided in Appendix 23A. This summary also includes linkages to the high-level overarching management and monitoring programs and plans, where appropriate. Management programs and plans are required to effectively implement the mitigation measures identified through the biophysical, cultural, and socio-economic effects assessment process. These programs and plans also need to be consistent with provincial and federal regulatory requirements for uranium mines and mills. Section 23.4.1, Environmental Management, and Section 23.4.2, Socio-economic Management, present the management frameworks for implementation of the Project's environmental and social mitigation measures, respectively. These include (Page 23-13, EIS):

- Environmental Protection Program
- Effluent Monitoring Plan
- Industrial Air Source Environmental Protection Plan
- Groundwater Protection and Monitoring Plan
- Environmental Monitoring Plan
- Environmental Code of Practice
- Wildlife and Habitat Management
- Caribou Mitigation and Offset Plan
- Biodiversity Action Plan

NexGen is committed to protecting the health and safety of and benefitting the Indigenous Peoples and communities potentially affected by the Project. This subsection describes the socio-economic management framework that is being developed for the Project (Page 23-17, EIS).

See above comment regarding ongoing collaboration.

Monitoring, follow-up, and adaptive management will include the following elements (Page 23-21, EIS):

- Environmental Assessment Follow-Up Monitoring
- Indigenous Monitoring
- Adaptive Management Plan
- Information Management and Reporting

YNLR supports the implementation of rigorous follow-up and monitoring. However, as stated previously, YNLR believes that these programs should be open, transparent, collaborative, and statistically robust.

Section 24. Conclusions

24.1 Introduction

EIS Section 24 Conclusions (24-1) provides a summary of the conclusions of the EIS, with a focus on findings related to valued components (VCs).

24.2 Engagement and Indigenous and Local Knowledge

Some key points from the EIS include:

- "NexGen has worked closely with the communities local to the Project since 2013 to help develop impactful community programs that focus on youth, with an emphasis on education, health and wellness, and building economic capacity. NexGen's engagement activities have continually evolved to understand and incorporate Indigenous and Local Knowledge"
- Identification of potentially affected or interested Indigenous Groups and local communities was informed through direct correspondence and discussion with Indigenous leaders, community members, and other organizations in the region; review of publicly available information; and guidance provided by provincial and federal agencies. Four Indigenous Groups designated as primary for full engagement. The Athabasca Denesųłiné were identified as "other Indigenous Group" for information sharing and a lesser (informed) level of engagement.
- An LPA consisting of the local communities closest to the Project that would experience most of the Project effects and for which NexGen would prioritize local training, employment, and business opportunities for the Project. The communities are located along or accessed by Highways.
- Primary Indigenous Groups and members of communities within the LPA have had the opportunity to share their Indigenous and Local knowledge and feedback with NexGen through a variety of engagement activities starting in 2013. This included signing fulsome Study Agreements that resulted in Joint Working Groups, IKTLU studies, harvesting and food studies, participation in EA baseline efforts and Key Person Interviews, commitments to a Benefits Agreement and variety of formal/informal individual, community, and other engagements. The Athabasca Denesųłiné Study Agreement was limited to resources for a IKTLU study.

NexGen began engaging with communities as early as 2013. Unfortunately, discussions with the Athabasca Denesųłiné did not begin until 2019. Based on the early engagement (i.e., pre-2019) primary Indigenous groups and communities deemed most likely affected by the proposed Project were identified. Then using these identified communities as a guide, a LPA (local priority area) was established. NexGen engagement activities were focused on primary Indigenous Groups and communities in the LPA. This approach has at least three flaws. First, it ignores or disregards the information provided by the Athabasca Denesųłiné in 2020 that clearly demonstrates their interests in the vicinity of Rook 1. Second, because the inclusion of communities in the LPA (and indeed the geographic extent of the LPA) is based on whether or not communities were previously identified means that AD's exclusion is likely self-perpetuating. The Athabasca Denesųłiné were not involved in

the early stages so they could not possibly have been considered nor could the LPA area include them. Third, the proximity of our communities to the project site is downplayed in the EIS by using a road distance measure rather than the well documented cross-country routes our members generally use to access the portion of our territory near the Project. In fact, Fond du Lac is closer to the project site than several other groups considered primary!

The 2020 Report - Provision of Athabasca Denesųłiné Traditional Knowledge, Land Use and Occupancy Information for the NexGen Rook 1 Project Environmental Assessment – was prepared (with financial support from NexGen) by YNLR on behalf the Athabasca Denesųłiné. This report provided an overview of the Athabasca Denesųłiné (AD) including culture, Treaties, way of life and dependence wildlife, and Nuhenéné (AD traditional territory). Further, it provided a thematic analysis and mapping of cultural and land use activities including big game harvesting, small game and fur bearers harvesting, fish and bird harvesting, overnight sites and travel routes, traditional plants, special areas and Dene names. The Athabasca Denesųłiné have clearly demonstrated that their traditional territory and land/resources use significantly overlaps the Project's LSA and RSA their occupancy and use Later sections identify primary concerns of the Athabasca Denesųłiné, and potential impacts on their Aboriginal and Treaty right related to the NexGen Rook 1 Project and industrial development in general. Clearly the Athabasca Denesųłiné should have been classified as a primary Indigenous Group. Unfortunately, the EA processes did not respond to the information provided the Athabasca Denesųłiné.

The Athabasca Denesųłiné were not deemed by NexGen to be a primary Indigenous Group and were thus not afforded the opportunity to sign a fulsome Study Agreement that allowed for participation in a joint working group aimed at supporting the inclusion of Indigenous knowledge into the EA through ongoing dialogue, for the identification of valued components, for the discussion of other important issues (e.g., caribou, and traditional routes into the project study area, etc.), for the creation of a community liaison position and for the ultimate development of Benefits Agreement. The greater involvement of Athabasca Denesųłiné within these activities would have allowed for a much more complete exploration of Athabasca Denesųłiné knowledge, land uses, rights and interests and how they might be impacted by the Rook 1 Project and ensured that NexGen was able to better understand and appreciate the uniqueness of the Athabasca Denesųłiné. The exclusion of the Athabasca Denesųłiné from the primary Indigenous group category ensured that they were afforded less attention than other Indigenous peoples. For example, the EIS identified an average of 157 key engagement activities for each primary Indigenous group while the YNLR (and AD communities) had only 29. This is prejudicial and self-perpetuating.

24.4.1 Summary of Technical Discipline Assessments
24.4.1.3.3 Wildlife and Wildlife Habitat

The EIS (p 24-16) notes "all VC populations would be expected to remain self-sustaining and ecologically effective except woodland caribou, which is not self-sustaining under existing conditions. For all wildlife VCs except woodland caribou, the residual effects from habitat disturbance, habitat alteration, and sensory disturbance from the physical footprint and associated Project activities in both the Application Case and RFD Case are considered not

significant" and further that "A Caribou Mitigation and Offsetting Plan would be developed and implemented for the Project…"

The Athabasca Denesųłiné believe that they should be <u>full</u> participants in any Caribou Mitigation and Offsetting Plan.

24.4.1.4.3 Indigenous Land and Resource Use

The EIS (p 24-28) describes the Indigenous Land and Resource Use VC and project impacts are manageable through mitigation measures which would involve include Indigenous and Public Engagement program and Benefit Agreements with primary Indigenous Groups.

The Athabasca Denesųłiné were not deemed by NexGen to be a primary Indigenous Group and were thus not afforded the opportunity to sign a fulsome Study Agreement that allowed for participation in a joint working group aimed at supporting the inclusion of Indigenous knowledge into the EA through ongoing dialogue, for the identification of valued components, for the discussion of other important issues (e.g., caribou, and traditional routes into the project study area, etc.), for the creation of a community liaison position and for the ultimate development of Benefits Agreement.

The Athabasca Denesųłiné believe that, as a primary Indigenous group, they should be <u>full</u> participants in the mitigation, management, engagement, and other programs and have a Benefit Agreement.

24.4.2 Summary of Significant Residual Effects and Benefits

24.4.2.2 Project benefits

The EIS (p24-23, 24-24) discusses the broad level benefits from the project as well as more specific benefits afforded to primary Indigenous groups under the terms of their Benefit Agreements.

24.4.4 Overview of Management Programs and Plans

24.4.5 Overview of Monitoring, Follow-Up, and Adaptive Management

The EIS (p 24-25, 24-26) discusses plans for management programs and plans to effectively implement the mitigation measures identified and to monitoring and follow-up programs to verify predicted results. Theses activities would be undertaken with continued engagement with local Indigenous Groups.

The Athabasca Denesųłiné believe that, as a primary Indigenous group, they should be <u>full</u> participants in any such programs, plans, and endeavours.

24.5 Next Steps

24.5.2 Establishment of Environmental Committees and Independent Indigenous Monitoring

The EIS (p 24-27) notes that Environmental Committees and Independent Monitoring is planned with some guiding points as follows:

- would provide further opportunities for inclusion of Indigenous and Local Knowledge

- aimed at primary Indigenous Groups
- full-time, independent Indigenous Monitors chosen by each primary Indigenous Group
- annual community meetings to report on the environmental performance of the Project

The Athabasca Denesųłiné believe that, as a primary Indigenous group, they should be <u>full</u> participants in any such environmental committees and independent monitoring endeavours.

24.5.3 Ongoing Engagement

The EIS (p 24-27) states

"…engagement activities would evolve as necessary to include Indigenous Groups and local communities in a manner that provides the opportunity for effective information exchange and dialogue specific to each stage of the Project. NexGen would take an adaptive approach to engagement to allow for adequate opportunity to respond to the needs of local communities…"

The Athabasca Denesųłiné believe that, as a primary Indigenous group, they should be <u>full</u> participants in any ongoing engagement activities.

24.6 Closing Statement

The EIS (p 24-27, 24-28) summarises NexGen's vision to become a world leader in delivering clean energy solutions for current and future generations in a manner that provides lasting benefits to local communities. Some key points (from an Indigenous Rights Perspective) are:

- sustainable long-term economic benefits for local Indigenous Groups and stakeholders
- worked closely with the communities local to the Project since 2013
- engagement activities have evolved to promote the inclusion of Indigenous and Local Knowledge
- No significant adverse effects of biophysical, cultural, and socio-economic VCs were predicted, with the exception of woodland caribou (which is already significant under existing conditions and that a Caribou Mitigation and Offsetting Plan is expected to provide a net increase in suitable habitat)
- would generate socio-economic benefits and opportunities for local Indigenous Groups and communities…
- NexGen would continue to prioritize training, employment, and business opportunities for the local communities closest to the Project

Repeatedly throughout the EIS, NexGen has described their visions, values, and approach. This includes the values of Honesty, Respect, Resilience (including being nimble and able to pivot), and Accountability as part of larger Ethical code. This Ethical code includes treating communities and the environment with respect and a considering all perspectives to challenge the status quo.

The Athabasca Denesųłiné ask that NexGen challenge the status quo and honor their values by including the Athabasca Denesųłiné in the EIS as a primary Indigenous group. This would ensure that that there is full engagement, consideration of Athabasca Denesųłiné Knowledge and interests, fulsome benefits and an ongoing relationship that is respectful of Athabasca Denesųłiné Aboriginal and Treaty Rights.

Section 24, Conclusions, provides a summary of the conclusions of the EIS, with a focus on findings related to valued components (VCs). The section is organized to provide brief summaries of the following information (Page 24-1, EIS):

- NexGen (Section 24.1.1, Summary of NexGen) and the Project (Section 24.1.2, Project Summary)
- NexGen's approach to engagement and Indigenous and Local Knowledge (Section 24.2)
- The scope and approach of the Environmental Assessment (EA; Section 24.3)
- The main conclusions of the EA under the categories of atmosphere, water, land, and people (Section 24.4)
- Next steps for the proposed Project following the submission of this EIS (Section 24.5, Next Steps), including CNSC licensing and provincial permitting processes (Section 24.5.1), establishment of Environmental Committees and independent Indigenous monitoring (Section 24.5.2), and ongoing engagement (Section 24.5.3)
- A closing statement (Section 24.6)

Transparent discussion and meaningful collaboration are at the core of NexGen's approach to Indigenous, regulatory, and public engagement. Encouraging progressive, broader thinking, balanced with technical competence and a deep and abiding respect for local Indigenous Peoples' and communities' understanding of the local area, site specifics, and industry best practice, is key to this approach (Page 24-3, EIS). Indigenous Groups and members of communities within the LPA have shared Indigenous and Local Knowledge and feedback with NexGen through a variety of engagement activities and sources of information. In general, sources of Indigenous Knowledge were identified through methods associated with the signed individual Study Agreements (e.g., Joint Working Groups, Indigenous Knowledge and Traditional Land Use Studies) with each primary Indigenous Group and through the Study Funding Agreement with Ya'thi Néné Lands and Resources. The majority of Local Knowledge was shared through EA baseline activities or other formal or informal individual and community events, including the community information sessions held in 2019. Indigenous and Local Knowledge was also shared by the Indigenous Groups in forms such as individual presentations describing important historical information, cultural practices, and knowledge (Page 24-4, EIS).

YNLR is ready to engage with NexGen throughout the life cycle of the Project and beyond.

The EIS has been summarized in Section 24 according to the following elements of the assessment (Page 24-6, EIS):

- Summary of Technical Discipline Assessments (Section 24.4.1)
- Summary of Significant Residual Effects and Benefits (Section 24.4.2)
- Assessment Confidence (Section 24.4.3)
- Overview of Management Programs and Plans (Section 24.4.4)
- Overview of Monitoring, Follow-Up, and Adaptive Management (Section 24.4.5)

Summary of Technical Discipline Assessments (Page 24-6, EIS)

This subsection summarizes the key findings from each of the individual disciplines included in the EIS. The assessment of intermediate components (not assigned significance) and VCs (assigned significance) is summarized within the following four categories (also see Table 20.3-1, page 20-4, EIS):

- Atmosphere: air quality, noise, climate
- Water: hydrogeology, hydrology, surface water quality and sediment quality, fish and fish habitat
- Land: terrain and soils, vegetation, wildlife and wildlife habitat
- People: human health, cultural and heritage resources, Indigenous land and resource use, other land and resource use, economy, community well-being

Summary of Significant Residual Effects and Benefits (Page 24-22, EIS)
As indicated in Section 24.4.1, Summary of Technical Discipline Assessments, no significant adverse effects on biophysical, cultural, and socio-economic VCs were predicted for the Project or for the Project in combination with RFDs, with the exception of the woodland caribou VC (Table 20.3-1, page 20-4, EIS). The wildlife and wildlife habitat assessment concluded that effects on woodland caribou in the Base Case are already significant, as the amount of disturbance in the SK2 West is greater than the 35% threshold value as described in the federal woodland caribou recovery strategy (ECCC 2020). Therefore, any amount of incremental habitat loss from any development, including residual losses of habitat associated with the proposed Project, is considered significant for woodland caribou. However, the Project is predicted to contribute little to the existing cumulative effects on woodland caribou

See previous comments on the VC selections and assessments, and the somewhat overly optimistic conclusions made.

Assessment Confidence (Page 24-24, EIS)
While uncertainty is an inherent aspect of any predictive exercise, there were no knowledge gaps that would affect the overall conclusions of the EIS. Considering the precautionary approach and using conservative assumptions where necessary, there is a moderate to high level of confidence that the effects on intermediate components and VCs have not been underestimated. Monitoring has been proposed in the EIS in part to address uncertainties associated with the effects predictions, as described in Section 24.4.5, Overview of Monitoring, Follow-Up, and Adaptive Management.

Follow up and monitoring is critical. However, while residual effects on most VCs were deemed not significant individually, their significance <u>in total</u> may be, especially given the multiple tests and binary ranking of significance.

Overview of Management Programs and Plans (Page 24-25, EIS)
This has already been presented and reviewed above.

Overview of Monitoring, Follow-Up, and Adaptive Management (Page 24-25, EIS)
This has already been presented and reviewed above.