



## **Wheeler River Project**

Indigenous Engagement  
Appendix B Part 4

**August 2025**

*Powering*  
**PEOPLE, PARTNERSHIPS  
AND PASSION.**

**From:** [Carolanne Inglis-McQuay](#)  
**To:** [Ty Roberts](#)  
**Cc:** [REDACTED]  
**Subject:** Denison Follow Up to Meeting on August 30, 2023  
**Date:** Saturday, November 4, 2023 6:27:00 AM  
**Attachments:** [20231106-LTR-DEN\\_LLRI-B-DEN\\_ResponseToMeeting.pdf](#)

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Dear Ty:

Please find attached correspondence from Denison regarding our meeting on August 30, 2023 in respect of the Wheeler River Project, and a response to Lac La Ronge Indian Band's comments made to the Canadian Nuclear Safety Commission on the Project.

Ty, I will keep following up with you regarding the contribution to the Heritage Fund noted in the letter.

Have a great day,  
Carolanne

**Carolanne Inglis-McQuay**

Director, Corporate Social Responsibility

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**From:** [Carolanne Inglis-McQuay](#)  
**To:** [Cheyenna Hunt](#); [Robin Kusch](#)  
**Cc:** [Janna Switzer](#)  
**Subject:** Denison Response to ERFN Technical Comments  
**Date:** Wednesday, November 1, 2023 7:48:00 AM  
**Attachments:** [20231101-Denison Response to ERFN Main Areas of Concern.pdf](#)  
**Importance:** High

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Good morning:

On behalf of Denison, please find attached a comprehensive technical memo prepared by the Denison team in response to the July 26, 2023 document from English River First Nation summarizing the main areas of concern in relation to the Wheeler River Project.

Following your review, if you would like us to coordinate a meeting to discuss further, we would be happy to arrange. I will touch base with you in the coming week to discuss if you anticipate any further steps being required.

Thank you for your continued efforts in this regard.

Very sincerely,  
Carolanne

**Carolanne Inglis-McQuay**

Director, Corporate Social Responsibility

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**From:** [Robin Kusch](#)  
**To:** [Carolanne Inglis-McQuay](#); [Cheyenna Hunt](#)  
**Cc:** [Janna Switzer](#)  
**Subject:** [\*\*]Re: Denison Response to ERFN Technical Comments  
**Date:** Tuesday, November 28, 2023 10:34:48 PM  
**Attachments:** [Review Denison Response ERFN Main Areas of Concern.pdf](#)

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Good day Carolanne,

Please find attached the review summary of Denison's Response to ERFN's main areas of Concern, which I have provided to ERFN. As you will see in the summary, I am satisfied with the level of response provided at this stage of project planning. They asked that I PDF the review and send it to Denison.

Thank you,  
Robin Kusch

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**From:** [Walter Smith](#)  
**To:** [Carolanne Inglis-McQuay](#)  
**Subject:** [\*\*]Re: Thank you for including us in the meeting today  
**Date:** Tuesday, December 5, 2023 2:28:51 PM

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Yes that is what we are saying.  
Sent from my iPhone

On Dec 5, 2023, at 2:17 PM, Carolanne Inglis-McQuay  
<[cinglismcquay@denisonmines.com](mailto:cinglismcquay@denisonmines.com)> wrote:

Walter, Damien:

Thank you for going above and beyond to include us in the meeting today with the CNSC. It is affirming to hear and understand from your perspective that we have been working well together, on the same journey, and that you think this is part of the natural positive evolution for the community. To me, that is the most powerful thing to be proud of.

I know you said it in the meeting to the CNSC, but if, at this point, you feel that our recent correspondence to you has resolved your concerns to date with the draft EIS and the Wheeler River Project, it could be helpful to let me know by email so I can confirm that to the regulators.

Many thanks again. I am sorry I will miss tomorrow night. It is my favourite event of the season!

Have fun celebrating all those amazing Pinehouse people.

Carolanne

**Carolanne Inglis-McQuay**  
Director, Corporate Social Responsibility

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## Wheeler River Project Overview

We acknowledge and respect the fact that Denison's flagship Wheeler River Uranium Project is located in northern Saskatchewan within the boundaries of Treaty 10, in the traditional territory of English River First Nation, in the homeland of the Métis and within Nuwêné.

Environmental Impact	Regulatory Status	Key Features	Key Advantages
• Environmental Impact Statement (EIS) completed and approved by the Government of Saskatchewan	• Approved by the Government of Saskatchewan	• Small surface footprint	• Introduces opportunity to develop potential mineral deposits not considered economically viable by conventional mining methods
• No underground workings - mining done from surface	• No underground workings - mining done from surface	• Low energy consumption	• Small volume of treated effluent
• Small volume of clean waste rock (sandstone drill cores from wellfield drilling)	• Small volume of clean waste rock (sandstone drill cores from wellfield drilling)	• Small volume of treated water precipitates	• Small volumes of waste rock (mineralized drill cuttings from wellfield development)

### Key Advantages of ISR Mining

- Small surface footprint
- No conventional tailings facility
- No underground workings - mining done from surface
- Low energy consumption
- Small volume of treated effluent
- Small volumes of clean waste rock (sandstone drill cores from wellfield drilling)
- Small volume of treated water precipitates
- Small volumes of waste rock (mineralized drill cuttings from wellfield development)

- Introduces opportunity to develop potential mineral deposits not considered economically viable by conventional mining methods

### Considerations of ISR Mining

- Protection of surrounding groundwater regime
- Significant evaluation efforts required to confirm ISR mining method is viable for high grade Phoenix deposit



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Information provided as of May, 2022

## Wheeler River Project Technologies

### In Situ Recovery

- Use an acidic or low pH mining solution to leach uranium ores from the ground
- Mining solution is a mixture of sulphuric acid, hydrogen peroxide and ferric sulphate
- Freshwater obtained from shallow groundwater or surface water
- Mining solution expected to be reused over and over, wherever possible
- Use mud rotary drilling to create wellfield - most common method of well-drilling in Saskatchewan

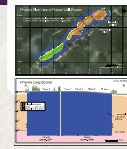
### ISR Process Overview



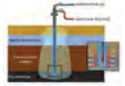
### Ground Freezing - Freeze Wall

- Ground freezing used to prevent groundwater in the sandstone from flowing through the uranium deposit
- Uranium deposit will be surrounded by an engineered freeze wall to isolate mining area from groundwater flow
- Freeze wall surrounding deposit from the basement rock to surface
- Use of groundwater wells for monitoring of the mining solution, groundwater level, ground pressure and temperature
- Freeze wall established by +300 freeze holes 6m apart from surface to low permeability basement rock
- Freeze wall holes made using diamond drilling method
- Chilled brine solution (calcium chloride brine) will circulate in the steel encased holes to remove the heat from the ground
- Warm brine solution flows out to surface to be re-chilled in a closed loop system - similar to how a community ice rink is kept frozen
- Commonly used technology at McArthur River and Cigar Lake

### Proposed Freeze Wall



### Typical Freeze Pipe



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## Wheeler River Regulatory Process

### Federal Regulators

Lead: Canadian Nuclear Safety Commission

- Reviews and approves Environmental Impact Statement (EIS) and licence applications
- Mandate to protect health, safety and security of Canadians and the environment

Main authorizations granted include:

- Licence to Prepare Site and Construct
- Licence to Operate

### Provincial Regulators

Lead: Saskatchewan Ministry of Environment

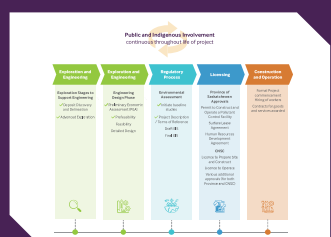
- Understand and evaluate potential environmental impacts of a project before any irreversible decisions are taken that may lead to negative effects on the environment, natural resources, or public health and safety
- Grant regulatory permits or licences
- Review and approve Environmental Impact Statement (EIS)

Main authorizations granted include:

- Permit to Operate a Pollutant Control Facility
- Surface Lease Agreement

### Wheeler River Project Process Status

- Environmental baseline studies ongoing since 2012
- Federal and provincial EA process initiated in May 2019 with submission of Project Description
- Environmental studies are completed to inform engineering design and mitigate potential effects of the project on the biophysical and human environments



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## Wheeler River Understanding Environmental Assessment (EA)

### Valued components

What are VCs?

It stands for Valued components. These are elements that are important to humans or the environment. Because viewpoints can vary, it was important to consult with northern communities to identify appropriate valued components.

When determining VCs, we used input from multiple northern communities:

- English River First Nation,
- Kinepik Métis Local #9,
- Pinehouse Lake,
- Beaver,
- Ile à la Crosse,
- Patawaka, and
- The seven Athabasca Communities represented by the Yá'thi Nêné Lands and Resources Office

VCs were determined to be Air, Humans, Indigenous Land and Resource Use, Ground/Terrain/Soil, Vegetation, Water, and Wildlife.

### Project Interactions

How will the project impact VCs? The project has several phases and activities that can interact with VCs. These are:

- Preparation
- Operation
- Decommission
- Waste Management
- Water Management

We undertake actions to eliminate or reduce negative project impacts on VCs. These actions are called mitigation measures.



### Significance

Can the impacts to VCs be effectively managed?

We study many considerations before making conclusions on whether impacts are significant. Residual adverse effects must be determined. These are the effects left after mitigation measures. Then, we answer questions about the residual adverse effects of each VC:

- Magnitude-How big is the effect?
- Geographic extent-Where do the effects occur?
- Time-When do the effects occur?
- Frequency-How often do the effects occur?
- Duration-How long do the effects last?
- Reversibility-Can the effects be undone?
- Context-Are there environmental or social factors to consider?

Surrounding projects, laws, policies, communities, practices, and land use, reliability of mitigation, multiple sources of knowledge, and many other factors can influence VC conditions. These factors are evaluated, considering the baseline conditions, to make a conclusion on significance.

A conclusion of "not significant" does not mean that an adverse effect won't occur or isn't important relative to people or the environment—it is simply a conclusion that the potential changes can be effectively managed.

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## Wheeler River VCs: Vegetation, Ecosystems and Wetlands

### Environmental Assessment Considerations

- Abundance of vegetation
- Chemical make-up of the constituents
- Listed Plant Species

### Potential Effects

Activities that could reduce or disturb vegetation, listed plant species, and wetlands:

- Introduction of weeds
- Generation and deposition of dust
- Changes to water quality
- Storage, handling, and transport of waste
- Reclamation of disturbed areas

### Mitigation Measures

- Limit the area of disturbance
- Use of existing clearings and previously disturbed land
- Cleared bush will be stockpiled and used in progressive reclamation
- Implementation of controls to limit dust generation
- Secondary containment of tanks and pipelines to contain accidental leaks and spills
- Minimize risk of accidental spills through the Fuel Management and Spill Control Plan
- Mining solution and process water will be reused whenever possible to reduce water required for the Project and to reduce treated water released to the environment

### Conclusions

Effects are anticipated to be:

- Low magnitude - less than 0.1% of wetlands lost; about 2.9% of habitat types potentially affected in the local area
- Local - limited to areas disturbed by the project
- Long term - throughout the project life cycle
- Not significant - residual effects are not expected to alter vegetation and ecosystems integrity (sustainability)

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## Wheeler River Cumulative Effects Assessment

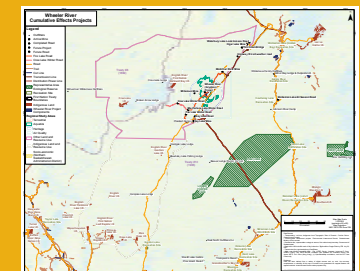
A Cumulative Effects Assessment (CEA) is completed to ensure that the incremental effects from multiple activities in an area (environment, human health, land use, etc.) are considered together. Project activities can interact with Valued Components; when interactions cause Valued Components' conditions to change, it is known as an "effect". The combined effects may be significant even though the effects of each independent activity is not significant.

### Cumulative Effects Considerations

- The cumulative effects (overlapping effects) were characterized to inform the CEA
- The significance of the cumulative effect was determined for each Valued Component
- The Cumulative effects for all of the Valued Components were predicted to be Not Significant

### Key Points of a CEA

- Completed for each of the selected Valued Components.
- Uses established assessment methods.
- Includes Indigenous, local and scientific knowledge.
- Conducted at the regional level for each Valued Component.
- Baseline conditions of the Valued Components reflect the effects from past and present projects and activities.
- Identifies overlapping residual effects (such as time and space) from the Project, with residual effects from known projects and/or activities from past, present, and future projects and/or activities.
- Considers all known projects and activities, and climate change.



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## Wheeler River VCs: Ground, Terrain and Soil

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### Environmental Assessment Considerations

- Land stability
- Soil quantity, quality and nutrients

### Potential Effects

- Activities that could impact land stability, surface drainage patterns, surface erosion potential, soil quality, and soil quantity:
  - Clearing, grading, and construction
  - Unexpected spills, leaks
  - Release of water to groundwater and/or surface water bodies
- Reclamation of disturbed areas may result in similar Project-related effects, but to a lesser extent.

### Mitigation Measures

- Limit the area of disturbance
- Construction strategies to eliminate or reduce impacts
- Use of existing clearings and previously disturbed land
- Reusing disturbed sources of soil nutrients, generated during construction, for the reclamation process
- Installation of sediment/erosion controls and surface water management features
- Monitoring of open-source dust associated with major earthworks and equipment travel
- Fuel Management and Spill Control Plan in place to respond to unexpected leaks, spills, and releases of materials
- Wherever possible, progressive reclamation will be conducted throughout the life of the Project in relation to landscape features (slope, aspect) and surface drainage patterns

### Conclusions

- Effects are anticipated to be:
- Low magnitude—within range of natural variations
- Local—limited to areas disturbed by the project
- Medium term—up to, but not including post-decommissioning
- Not significant—residual effects are not expected to alter VCs integrity and sustainability nor their availability to contribute to the environment

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## Wheeler River VCs: Wildlife and Birds

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### Environmental Assessment Considerations

- Populations and health of wildlife including:
- Ungulates: Moose, Woodland Caribou
- Furbearers: Wolverine, Mink, Muskrat
- Birds: Bald Eagle, Osprey, Common Nighthawk, Short-Eared Owl, Watershrike, Game Birds, Songbirds, Yellow Rail, Rusty Blackbird, Olive-Sided Flycatcher

### Potential Effects

- Activities that could reduce or disturb species of wildlife, birds, or habitats include:
- Vehicles, equipment, and aircraft traffic
- Dust
- Human presence
- Collisions with equipment and vehicles
- Entrapment in facilities
- Exposure to substances in dust
- Release of Project-related treated effluent
- Spills of hazardous materials
- More efficient hunter, trapper, and predator access to the Project area via new access routes
- Changes to surface water quality could affect wildlife habitat and health from water management practices
- Decommissioning of Project site may result in a continued alteration of wildlife habitat and/or mortality from vehicle-wildlife collisions.

### Mitigation Measures – Wildlife Management Plan

- Limit the area of disturbance
- Use of existing clearings and previously disturbed land
- Site clearing scheduled to avoid times when animal and birds are denning, nesting, breeding
- Nesting surveys conducted before clearing to identify and establish measures to protect dens, burrows, lodges, nests, and other habitat
- Measure and practices to reduce the generation of dust
- Secondary containment of tanks and pipelines to contain accidental leaks and spills
- Implementation of Fuel Management and Spill Control Plan
- Fencing and monitoring contaminated areas—waste ponds and pools, landfills
- Implementation of Woodland Caribou Management Plan
- Employees trained to minimize their impact on wildlife, such as no littering, respect for wildlife, etc.
- Implementation of speed limits to reduce risk of collisions with wildlife
- Waste and hazardous materials collected and temporarily stored in wildlife-proof containers

### Conclusions

- Effects are anticipated to be:
- Low magnitude—risk of mortality within range of natural variations
- Regional effect on habitat loss—limited to Project area
- Local effect on mortality—direct mortality within Project area from vehicle-wildlife collisions, but indirect mortality could extend beyond Project area
- Medium term for long-term—highest loss of habitat and mortality vehicle-wildlife collisions expected during construction and operation, but may continue during other phases of the project
- Medium to long term for furbearers, raptors and at-risk bird species—loss of habitat and mortality vehicle-wildlife collisions expected during construction and operation
- Long term for woodland caribou and migratory breeding birds—alteration of habitat and mortality vehicle-wildlife collisions expected through all phases of project—highest mortality potential during construction and operation
- Not significant—residual effects not expected to alter habitat integrity nor wildlife and bird regional populations sustainability

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## Wheeler River VC: Aquatic Environment

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### Environmental Assessment Considerations

- Fish habitat availability and distribution
- Fish survival and reproduction
- Surface water levels and flow
- Concentration of chemicals and metals in surface water
- Concentration of chemical and metals in aquatic sediments
- Distribution and survival of snails, worms, dragonfly larvae, and other benthic invertebrates

### Potential Effects

- Activities that could reduce or disturb aquatic environments, species, or habitats:
- Modification of fish habitat from disturbances around surface water
- Erosion and transport of sediments into surface water
- Water withdrawal from Whitefish Lake
- Releasing effluent to Whitefish Lake
- Water management could result in changes to water quality affecting fish, fish habitat, and benthic invertebrates
- Water management could alter stream flow or lake levels required for fish mobility and productivity
- Reclamation of disturbed areas could increase sediments in water and change fish habitat

### Mitigation Measures

- Limiting duration of in-water working: conducting work during low-flow periods, and conducting work away from flows when possible
- Avoiding activities in windy or rainy conditions to limit erosion and sedimentation
- Plan activities in waterbodies to limit loss or disturbance to aquatic and sensitive habitat
- Limit shoreline degradation when operating machinery
- Stabilize shorelines to limit erosion and sedimentation by limiting clearing of vegetation and revegetating with native species, wherever possible
- Maintaining routes used for fish passage by designing water intake and treated water discharge locations to protect fish, fish movements, and fish habitats
- Planning to avoid chemicals entering waterways during near-water work
- Implementing an Erosion and Sediment Control Plan

### Conclusions

- Effects are anticipated to be:
- Low magnitude—no loss of habitat and fish population
- Local—limited to Project area
- Long term for habitat availability—throughout construction and operation
- Short term for habitat distribution—fish movement protected throughout life of the project
- Not significant—residual effects are not expected to alter local fish populations

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## Wheeler River VC: Relationship to the Land

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### Environmental Assessment Considerations

- Resources availability
- Land availability
- Suitability of land and resources

### Potential Effects

- The presence of the project and its activities may result in changes to:
- Water, vegetation, fish, and wildlife
- Access to the area
- Land area available
- Noise level, traffic, dust, and other disturbances associated with Project activities
- Quality of the experience using resources
- Opportunities for Indigenous land use activities
- Opportunities for non-Indigenous land use

### Mitigation Measures

- Implementation of measures to protect plants, fish, and wildlife
- Limit the area of disturbance
- Use of noise reducing equipment
- Reduce dust and air emissions
- Enforce speed limits for traffic
- Implement radiological clearance of equipment before exiting Project site
- Implement progressive reclamation of disturbed areas
- Establish community agreements
- Establish trappers' compensation
- Implement Indigenous People's Policy, including ongoing communication with Indigenous Communities of Interest

### Conclusions

- Effects are anticipated to be:
- Low magnitude—no loss of habitat and fish population
- Local—Project area (in and around the local and regional study area)
- Long term—until reclamation is complete
- Not significant—continuous in frequency, low in impact, and fully reversible following decommissioning

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## Wheeler River VCs: Community, Culture and Economy

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### Environmental Assessment Considerations

- Populations, traffic, community infrastructure and services
- Income, employment, training, government revenues, business opportunities
- Community cohesion and traditional economy
- Employment and training (generally delivered through institutions connected to northern Saskatchewan)

### Potential Effects

- Activities that could interact with community, culture, and economy:
- Population numbers and population characteristics
- Up to 300 jobs created during construction and more than 100 direct and contract roles during the operation phase
- Supervisory, trades, professional, technical, and foundational (entry level) positions available during operations
- Availability and increased opportunities for business and training
- Participation in traditional economic activities
- Abscense of Traffic
- Increased demand on community infrastructure and services

### Mitigation Measures

- Implementation of agreements with communities (support)
- Prioritize Indigenous and non-Indigenous Communities of Interest (employment, training, and business, wherever possible)
- Implement procurement approach focused on local communities
- Implementation of education and other support services for workers and in some cases their families
- Planned pick-up points in alignment with employment practices
- Implementation of Emergency Response Plan

### Conclusions

- Effects on community well-being, infrastructure, services and economy are currently being assessed, and are anticipated to be:
- Minimal adverse and/or positive
- Low to moderate magnitude—during construction and operation, and low during reclamation
- Local—primarily in the Project area
- Short to medium—based on Project phases
- Not significant—continuous in frequency, moderate in context, and fully reversible following decommissioning

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## Wheeler River Risk Assessment

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To evaluate and understand if people, plants, and animals will be exposed to substances at amounts above what is known to be safe after the planned mitigation measures have been applied.

It incorporates the movement of substances through the food chain as well as direct exposure to substances (soil, air, water, etc.) to appropriately capture risk.

### Human Health Risk Assessment

- People who access the project site are considered in the risk assessment. They include:
- Camp workers
- Seasonal resident/edge operator—seasonal access
- People fishing/hunting/trapping/gathering fireweed/picking berries—traditional and recreational access
- Neighbouring residents fishing/hunting/trapping
- Future permanent residents—access to Project site after its decommissioning

### Assessment Results and Mitigation

- Low overall health risk to people using the area
- Expected radiation doses to people below public dose limit
- Low risk of exposure of people to metals in the environment (below benchmarks for metals)
- Ongoing monitoring during all Project phases

### Ecological Risk Assessment

Considers ecological receptors such as:

- Terrestrial Mammals—Woodland Caribou, hare, moose, black bear, lynx, etc.
- Riparian Mammals—Muskrat, mink
- Terrestrial Birds—Bald eagle, robin, Canada goose, etc.
- Riparian Birds—Mallard, loon
- Fish—Northern pike, white sucker
- Aquatic Invertebrates—Zooplankton, benthic invertebrates
- Terrestrial Vegetation—Lichen, Blueberry, Labrador tea
- Aquatic Vegetation—Phytoplankton, Macrophyte

These can be exposed to substances through direct exposure in water, sediment, soil, air or through the food chain.

### Assessment Results and Mitigation

- Low overall health risk to animals, plants, and invertebrates
- Expected radiation doses to ecological receptors below benchmarks
- No risk of exposure to ecological receptors to non-radionuclides hazards
- Ongoing monitoring during all Project phases

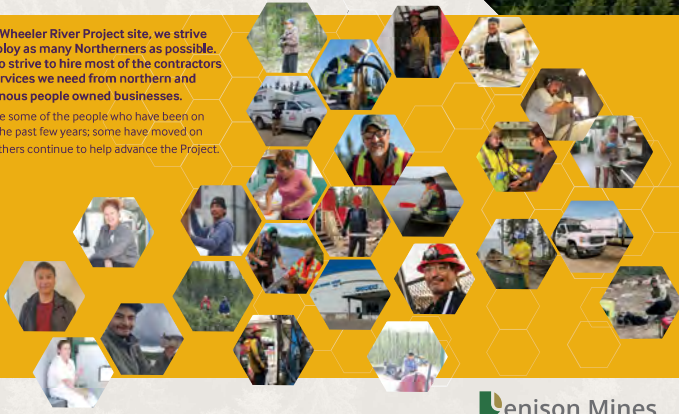
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## Wheeler River Project People

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At the Wheeler River Project site, we strive to employ as many Northerners as possible. We also strive to hire most of the contractors and services we need from northern and Indigenous people owned businesses. Here are some of the people who have been on site in the past few years; some have moved on while others continue to help advance the Project.



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## Wheeler River Building Relationships

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Denison and the Wheeler River Project team are committed to meaningful engagement with Indigenous people, communities, residents, and organizations with an interest in our Project.

**TALKING together. LISTENING to you. RESPONDING to explain.**

### Engagement With Indigenous and Non-Indigenous Communities of Interest

- English River First Nation
- Kingsley Mills Local #9 (Ponchoal)
- Mills Nation - Saskatchewan
- A La Bale Mills Local #1 (Weila Cross)
- Sipson Mills Local #7 (Beauval)
- Patawaka Mills Local #2 (Patawaka)
- Northern Hamlet of Patawaka
- Northern Village of Pinehouse
- Northern Village of La La Croix
- Northern Village of Beauval

Other communities, organizations and groups of interest:

- Lac la Ponge Indian Band
- Brich Narrows Dene Nation
- Buffalo River Dene Nation
- Hatchet Lake First Nation
- Black Lake First Nation
- Ford du Lac First Nation
- Mills Nation - Saskatchewan
- Yat'ni Nini Land and Resource Office
- Prince Albert Grand Council
- Hudson Lake Tribal Council
- Commercial trappers
- Commercial loggers
- Cabin and lease owners

### Thank You, Bobby John

Bobby John lived, trapped, fished and hunted in the Wheeler River Project area long before Denison and its predecessors started exploring the site. Over the years, Bobby John became someone our Project team relied on for insight on the area, for feedback on the Project proposal, for help with tracking wildlife and for assistance for our field teams, cutting through the bush and more. We will not forget Bobby John's contributions.

Since 2016 and every year after, Denison has met with community members and leadership through workshops, site tours, public meetings, and even virtual community meetings to hear concerns, receive knowledge and input, and share Project information. Subjects of workshops and meetings have included:

- Wheeler River Project components:
  - Access road
  - Treated water left/land discharge location
  - Mining method
  - Design change to freezing containment method
- Environmental considerations:
  - Water bodies - fishing
  - Fish habitat
  - Species at risk
  - Land disturbance

### Our Support of Communities

Denison's support of communities can take various forms:

- Donations to community organizations
- Sponsorships of community events
- Sponsorships of in-kind support of education and field trips
- Direct agreements with specific Indigenous communities

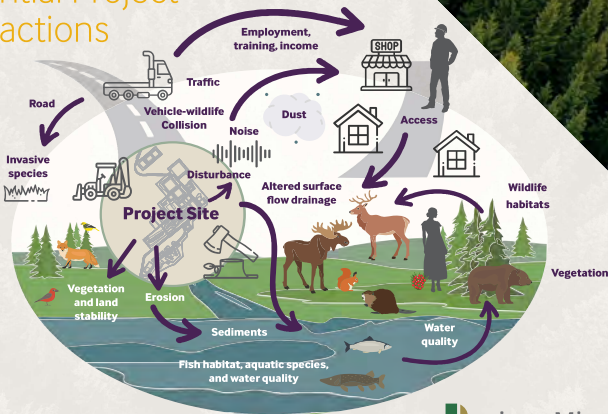
Here are some examples of Denison's support in 2021:

- Entered into an Exploration Agreement with English River First Nation
- Met with Northern Saskatchewan Region 3 South Bay Gathering
- Sponsored Bears Group and their market garden initiative
- Pinehouse Lake hockey tournament
- Improvements to the English River First Nation Culture Camp at the Mawbey Reserve at 160km
- Many Christmas initiatives in the region, including those in Beauval, La La Croix, and the Hamlet of Patawaka

**Denison Mines**  
wheelerriverproject.ca | denisonmines.com  
Information provided as of May, 2022

## Wheeler River Potential Project Interactions

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Information provided as of May, 2022





# Wheeler River Project – Denison Mines

## mâci masinahamihk okâwiymâw askiy mêskopicikêwin wihtamasinahkan kâ-wî-itôtamihk atoskêwin

anima Wheeler River atoskêwin(anima atoskêwin) anima Denison itascikêwin êkota situ miskêwin (ISR) kaskatêw asiniy wâtihkêwin êkwa osihcikêwin misi-wikamik:

- tâtinitê: kîwîtinohk Saskatchewan, kanâta
- atoskêwin kîkwaya êkwa itôtamowina: anima tâwayihk atoskêwin kîkwaya anihi ISR wâtihkêwin êkwa anima osihcikêwin misi-wikamik. sihtoskamihk misi-atoskêwin kîkwaya êkwa itôtamôwina astêwa kîkwaya osci wêpinikêwina, nipiy pimipayicikana, wâskwatawêpicikana, êkwa pimitâpâsowin, tâskoc tôhêwina, sâkahikanisa, wikamikwa, mêskanawa, êkwa pimihâkan mêskanaw.
- pihcâyihk: kanâtahk nipiy, nanâtohk âpoya (osci wâtihkêwin, kaskatêw asiniy osihcikêwin, nipiy kanâcihcikêwin), wâskwatawêwin êkwa pimiy.
- wayawê itôtamowina: wêpinikêwin (askiwiya, kanâti asiniy wêpinikêwina, pîtosî wêpinikêwin asiniy (wâtihkêwin askiy), cîki wêpinikêwin, misi wêpinikêwin, sâpipêwina ohci osihcikêwin wikamik êkwa nipiy kanâcihcikêwin, mîsêw âpoy) îhîwina mîna pêwâpisk kaskâpahtêwina (GHGs) kisêwêwin, êkwa kanâcihtâhk nipiy kâ-sîkipitamihk nipîhk.
- kîkway osihtâhk: U3O8 ahpô osâwi-wîhkikasikan. anima kîkway Denison atâwâkêcik apacihcikâtêw isi pimiy êkota kaskatêwi asiniy wikamikohk, sihtoskamihk okâwiymâw askiy itôtamowin ka-nîkipitamihk GHG kaskâpahtêwina.
- atoskêwin: nântaw 300 atoskêwiyniwak kâ-osihtâhk êkwa 180 ikospê atoskêwin. anima pimipayicikêwin ka-pihci-pimihâwak êkwa wayawê-pimihâwak atoskêwin.
- atoskêwin ispayik, 5 askiy osci pônihkamihk, êkwa 15 askiya osci kîsihtâhki-pônihkamihk ispayihowina.

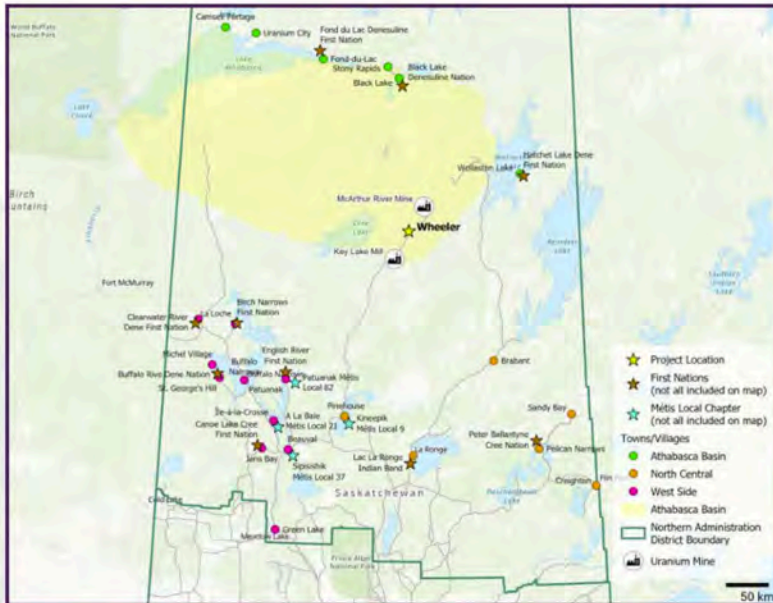
anima okâwiymâw askiy kinwâpahcikêwin (EA) kâ-masinahikâtêk ôta okâwiymâw askiy mêskocipitamihk wihtamâkêwin (EIS) kinwâpahcikâtêw êkwa nanisihkâc, askôhamihk itôtamowin ka-kinwâpahtamihk atoskêwina tâskoc mêskocipayinwa. Kakwê osihtâhk kanawêyicikêwin EA masinahamihk, ahpô ayiwâk pihci, anima nistohtamowin misi-atoskêwin osihcikêwina. Tâskoc, anima tipêyaw nakatamowin osci osihcikêwak masinahikêwina nântaw 75 ha, mâka anima EIS itêhtamwak anima atoskêwin mêskocipayiwin cîki 170 ha. pêyakwan, tahto askiy osihcikêwin osci osihcikêwak osihtâwin anima 6 Mlbs U3O8 tahto askiy iskohk 10 askiya, mâka EIS itêhtamwak osihtâwin 9 Mlbs U3O8 tahto askiy isi 15 askiya, mîna mistahi itôtamowin iskohk 12 Mlbs U3O8 askiy osci itôtamowin waskawêwin. Itastêw, tâskoc, anima EIS kinwâpahtamwak pihcâyihk nitawêhtamihk êkwa wayawêwina osihtâhk tahtwâ askiy 50% ayiwâk kâ-itêhtamihk.

kîkwaya kâ-astêki kâ-kîsi kanâcihtâhk ikospê pihkaw osci askiy ê-kîskatahikâtêk, ayiwâk ayisîniwak ê-pimitâpâsocik, kaskâpahtêw, wêpinikêwina, êkwa nipiy pimipayicikêwin. Kîkway kâ-ispayiki kinwâpahcikâtêwa êkwa itasiwâtamihk anihi EIS anima atoskêwin kâ-kî-osihcikâtêw, pimipayicikâtêw, êkwa pônî-apacihcikâtêw ikospê misi-wikamikwa êta kâ-wîkicik miywâsinwa êkwa ahkami apacihcikâtêwa, kinosêwak êkwa pisiskiwak miywâyâwak, ayisîniw miywâyâwin kanawêyicikâtêw, astêwa kîkway ka-apacihcikâtêw askiy, tâskoc iyiniw pakitinikowisowina, êkwa ahakami kiyohkêwin êkwa sônîyahkêwin. Anima EIS itasinahikâtêw kwayisk itôtamowina, kinwâpahcikêwina, êkwa asotamâkêwina osci Denison ka-ayâcik sohkêyimowin anima atoskêwin ê-pimipayik êkwa ispayihowin osci atoskêwin osihtâwin, pimipayicikêwin, pônî-apacihcikâtêk astêwa êkota ahpô apisîs itêhtamowina ispayihowina.

misawê, ôma atoskêwin itêhtâkwan kwayisk ta-ispayik askîhk pihci kotakwa wâtihkêwina. pihkaw osci, anima ISR wâtihkêwin itôtamowin, anima atoskêwin astêwa namôya mistahi kîkway ê-nakacikâtêki kâ-kîsi-kanâcihtâhk pihci kotakwa wâtihkêwina ahpô atâmihk askîhk wâtihkêwina êkwa kotakwa itôtamowina.

mistêhtâkwan, Denison pâ-pîkiskwâtêwak iyiniwak êkwa kotakwa atoskêwikamikwa, ayîsiniwak, êkwa kanawêyicikêwak ikospê 2016. Mâmawi itôtamowin isi pîkiskwêwin êkwa yahtohtahikêwin osci anima atoskêwin wihtamwak ôki ayisîniwak ka-miyo-ispayiki atoskêwina êkwa anihi EA nanâtohk êsi. Denison wâpahtamwak anima EIS tâskoc mistêhtâkwahk wiycikêwin kîkway ka-sihtoskamihk nîkânihk itôtamowina êkwa pîkiskwêstamwak pêyak itôtamowin êkota kâ-ayimahk EA, masinahikêwin, êkwa pakitinamihk kaskatêwi asiniy wâtihkêwin wikamik êkota kanâta.





## tântê

anima Wheeler River atoskêwin  
astêw êkotî kîwîtinohk  
Saskatchewan êkota Athabasca  
kapâwin.

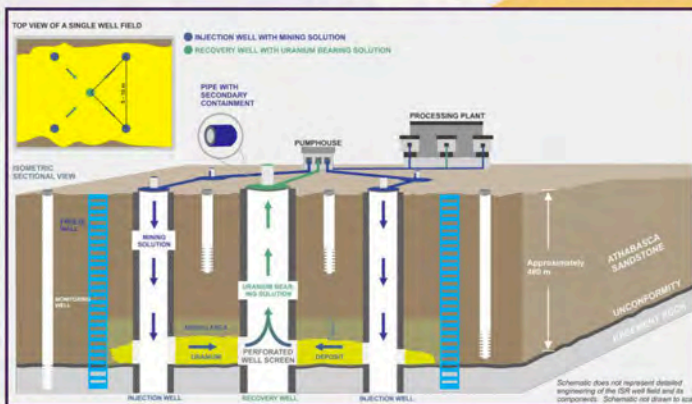
## atoskêwin kâ-êsi nakatamihk

animi kihci atoskêwin  
apacihcikana astêwa êkota situ  
kâwi-miskamihk wâtihkêwin  
êkwa osihtâwin wikamik.

## êkota SITU kâwi-miskamihk

êkota situ kâwi-miskamihk apacihcikâtêw kisitêk  
âpoy ka-otinamihk kaskatêwi asiniya osci askîhk  
isi cîstamihk êkwa kâwi mônahipâna. Anima  
osihtâwin wikamik astêwa maskimota êkwa  
apacihcikana ka-otinamihk kaskatêwi asiniy osci  
situ kâwi-miskamihk isi osâwi wihkikasikan.

Denison ka-atâwâkêwak anima osâwi  
wihkikasikan ka-apacihtâhk ka-sipwêpitamihk  
wâskwatawêwikamikwa, sihtoskâtahkik  
okâwiymâw askiy itôtamowina ka-nîkipitamihk  
pihcupowi kaskâpahtêwina.



## mistakihtêki apacihcikana & atoskêwina waskawêwina

Denison kinwâpahtwak kîkwaya,  
isihkâtêki mistakihtêki ispayihowina osci  
anima atoskêwin êyikoni kîkwaya.



# Wheeler River Project – Denison Mines

## Ēłóchëlë Nih Bazi t'áú nih besoídi ha si erit'is.

### T'aghá Holnį si diri nih bazi nuhhel kodi hasj.

Diri Wheeler River – Denison Mines nih sēnolye ha si, t'au nih nághįna ha (situ) Yanathē tthe ghą nade ha si.

- Yathē nene diri Saskatchewan k'eyaghē hoʔą si Canada tth'i k'eyaghē.
- Diri t'au tu t'arat'į si senalye ha, t'a ghą nade si konųhełnį ha. Kon/tthe slįnį (Uranium) senalye seráde ha, tulu k'e ts'etai sēlye, yoh tth'i ts'etai sohúde ha. Beyets'et'ali neltła ha tth'i senuhut'a ha. T'aʔu tu t'arat'į si (tu slįnį) sohulye ha. Diri t'aʔu nih t'arat'į si senalye ha hodi sj.
- 'Senahulye de, tu nezų, tthe slįnį t'aʔu senalye ha. Kon bēt'á asi hēt'ēl si, t'ēs tth'i ts'etai sēlye si."
- Ku diri halye ha si, t'achaghē, tthe t'a bohełtaile si, t'aʔu nih dałdhe nįsi, tu, tujērē-ú, tsą tue-ú, t'aʔu tthe t'arat'į si tu hēl si, sēlye ha. Ku diri asi ghą nade t'a horehth'a si ya bazį tth'u. T'a tu senalye si eyi tth'i hahodi.
- Diri tthe slįnį (uranium) łes ʔahot'į alye si bēt'á kon hołe, kon heltsi ha. Diri kon uranium t'a holį de, dēhth'agh hile snį.
- Diri nih Senahulye si bónįther de tononą (300) ts'etai sohulye ha si. Łononą- įłk'etoną tth'i Dene ēghádálana ha sj. Diri bónįther de beyets'et'ali t'arat'į ha.
- Diri t'a bēghą Eghalada ha si tóną-įłk'edįghį nene-ú, nake nene ts'etai sohúde ha-ú, sųlaghe nene t'a nuhut'a si nanelye ha, Sųlaghe ts'adhel nene ts'etai senahulye ha.

Diri nih senahulye si horelyų net'į, nih-ú, ya-u t'áú besuwidi ha.

T'aʔu nih ts'etai sēlye ha si, t'a Dene yēghą erit'is dałtsi hotié deʔą (engineering), erit'is nédhé bets'į deʔą, t'aʔu nih hotié ts'etai ʔalye ha.

Diri t'aʔu aresį henį, nih nechozē ʔałnį sj, įlaisdįghį nih hultsai anįtttha u, kuli horįchoze ʔats'edi sj, T'a ha seráde si tthe slįnį (uranium) halye ha hodi sj łonēną nene ha hodi. Ku diri t'a the slįnį halye hasi, sųlaghe ts'adhel nene tthe nezų halye ha henį. T'at'u tthe įłk'etaghē limil (łonēną ąnelt'e) ʔaįđdath henį, kuli lota limil tthe hilchu has henį. Kuli sųlaghe ts'ēdel nene anįtttha de nake ts'adhel limil ʔaįđdath the hilchu hasi. Eyi t'a soloną (percent) hoʔąnelt'e tthe hilchu ha henį sj.

Diri bēt'á Eghalada si t'au nih ts'etai sēlye si, bēhchēnē tth'i la ha-ú, horetth'a t'au, asiʔaldel tth'i la-ú, tu t'a bēt'á Eghalada si besorįthēn ha la. ʔałtu nih, tu-ú, ya ts'en boʔēłta hasą. Kuli yedołnį ha henį.

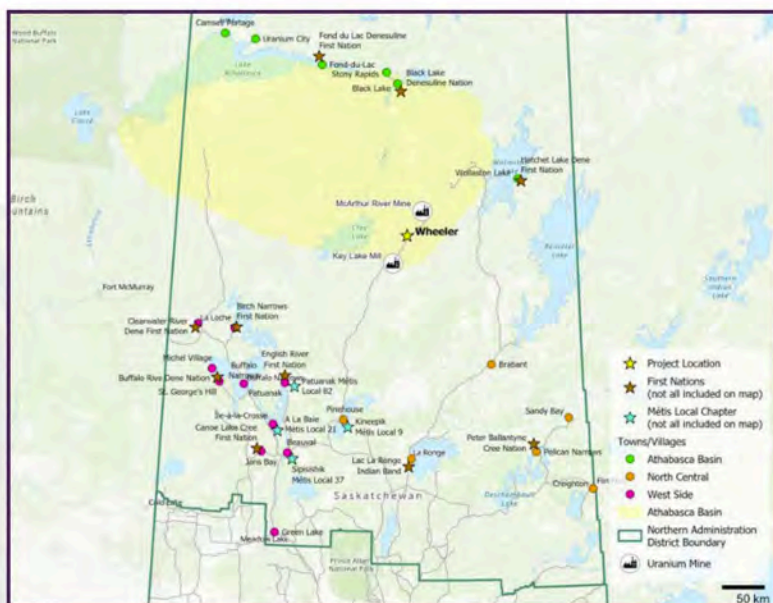
Diri bēghą Eghalada si, yēghą ēghadálghēna hoyaghē ts'etai sedáhúlye-ú, łue-ú, nųneshe, ēch'ērē, hotié besoídi ha, Dene t'a dághēna. Denesųłine nih t'a dághēna la, nuhhene theri hoʔą. Nih-u, tu-ú, ya-ú nųhha besudi hoʔą.

Diri t'aʔu nih ghą ēghádálana si hotié bahodi, t'aʔu erit'is holį si hotié déʔą, t'aʔu ts'etai sohúde-ú, t'aʔu ēghádálana-u, t'aʔu nih senalye si hotié déʔą.

Diri t'aghą ēghádálana si hotié nih hodi ha henį, yanįzi t'aʔu nih hesdohołts'į si konalyehaile dųhų henį. T'a tthe nih-u, tu-u, ya-u bēt'á nezųle ni, dųhų tthe slįnį si bēt'á nih-u, tu-u, ya-u hesedowełnį ha henį. T'a tthe nih horįcha nailts'el nį, nih yaghē tth'i dēgharē nih nárałts'ul nį – dųhų kone haile henį.

Dųhų de t'a benenē k'e ēghadálghēna si bedóghelįnį déʔą, hotié t'a ghą ēghadalaida si bełkoridi hoʔą 2016 hots'į. Diri t'a bēghą náide si t'a benenē si beł hoʔą. Nih hodi hoʔą, tu-u, ya-u boghedi ha. Diri t'a erit'is beł'azi (license) si, horelyų sohúde déʔą, diri Canada k'eyaghē tthe slįnį ghą naidi hade.





## LOCATION

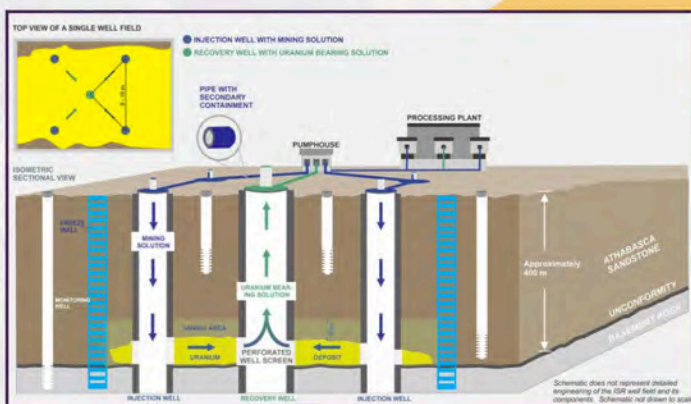
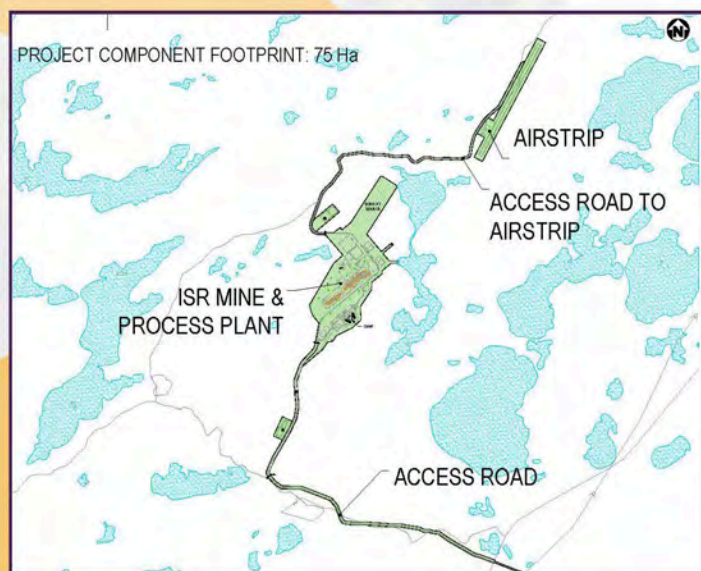
Ku diri k'eyaghë deht'is si t'a  
ts'en ëghadálghëna hasi horet'ì –  
Dene nenene k'e.

## PROJECT FOOTPRINT

Diri t'a yet'a nih ghà nade has si  
deht'is sj.

## IN SITU RECOVERY

Diri tu het'el t'a tthe slìnjì hilchu, horjcha horet'ì  
la, t'at'u tthe sëralye si bët'a les hoë. Ku eyer  
hots'ì les bëghà nánì, horelyu nene k'e, t'a  
horehtth'a ch'a hodołni sj. Eyi Parałnjì  
Greenhouse Emissions, diri nih k'e náide si  
besoıdı ha.



## VALUED COMPONENTS & PROJECT INTERACTIONS

T'a?u nih besoıdı hasi Dene  
yek'odarëlyä hasa.



# Wheeler River Project – Denison Mines

## Draft Environmental Impact Statement

### Project Overview

The Wheeler River Project (the Project) is Denison's proposed in situ recovery (ISR) uranium mine and processing plant:

- Location: northern Saskatchewan, Canada.
- Project components and activities: the central Project components are the ISR mine and the processing plant. Supporting Project components and activities include those needed for waste management, water management, distribution of electricity, and transportation, such as pads, ponds, buildings, roads, and an airstrip.
- Inputs: freshwater, chemicals (for mining, uranium processing, treating water), electricity, and fuel.
- Outputs: waste (organics, clean waste rock, special waste rock (drilling core), domestic waste, industrial waste, precipitates from the processing plant and water treatment, sewage), air emissions including greenhouse gas emissions (GHGs), noise, and treated effluent.
- Product:  $U_3O_8$  or yellowcake. The product Denison sells is ultimately used as fuel in nuclear power plants, supporting global efforts to reduce GHG emissions.
- Employment: Approximately 300 workers during Construction and 180 during Operation. The Project will be operated as a fly-in-fly-out operation.
- Project duration: Total of approximately 38 years, about 2 years for Construction, 15 years for Operation, 5 years for Decommissioning, and 15 years for Post-Decommissioning periods.

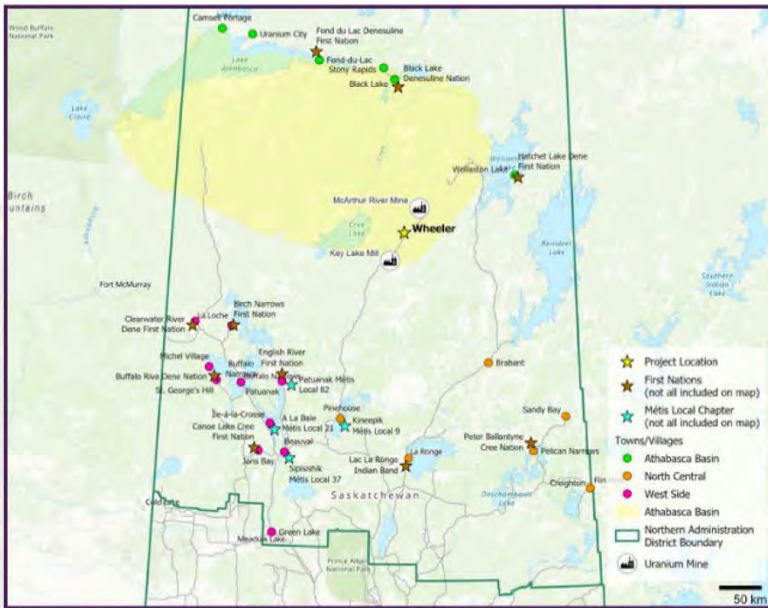
The environmental assessment (EA) outlined in this environmental impact statement (EIS) was transparent and conservative, following a standard, step-wise approach for evaluating Project effects including cumulative effects. In an effort to generate a conservative EA and provide operational flexibility, Denison developed an assessment basis for the EA which bound, or was higher than, the current understanding of the Project's engineering design basis. For example, the direct Project footprint based on engineering site plans is about 75 ha, but the EIS assumed the Project's area of disturbance was closer to 170 ha. Similarly, the annual production for current engineering design is 6 Mlbs  $U_3O_8$  per year over 10 years, but the EIS assumed production of 9 Mlbs  $U_3O_8$  per year over 15 years, with a peak production up to 12 Mlbs  $U_3O_8$  in a given year to allow for operational flexibility. This means that, for example, the EIS assessed inputs needed and outputs generated on an annual basis as being 50% more than expected.

Residual effects remaining after mitigation were largely linked to land clearing, increases in traffic, emissions to air, waste generation, and water management. Residual effects were evaluated for 32 Valued Components (VCs) and significance determined for receptor VCs. The evaluations and conclusions of the EIS are that the Project can be constructed, operated, and decommissioned while regional plant communities are stable and continue to function, regional fish and wildlife populations are viable and healthy, human health is protected, there is continued opportunity for land use activities, including exercising Indigenous rights, and there is continued social and economic viability of local economies. The EIS outlines mitigation measures, monitoring requirements, and commitments needed for Denison to have confidence that Project is operating as planned and that the actual effects resulting from Project Construction, Operation, and Decommissioning are at or below predicted effects.

Overall, the Project has the potential to achieve a superior standard of environmental sustainability when compared to conventional uranium mining operations. Owing, in large part, to the use of the ISR mining method, the Project has potentially fewer residual effects remaining after mitigation when compared to conventional open pit or underground mining methods and conventional milling activities.

Importantly, Denison has been proactively engaging with Indigenous communities and organizations, the general public, and regulatory agencies since 2016. The use of a collaborative approach to engagement and advancement of the Project is exemplified by the input these groups have provided to influence both project designs and the EA in various ways. Denison views the EIS as an important planning tool that will be used to support future activities and represents one stage in the rigorous EA, licensing, and permitting process for a uranium mining facility in Canada.





## LOCATION

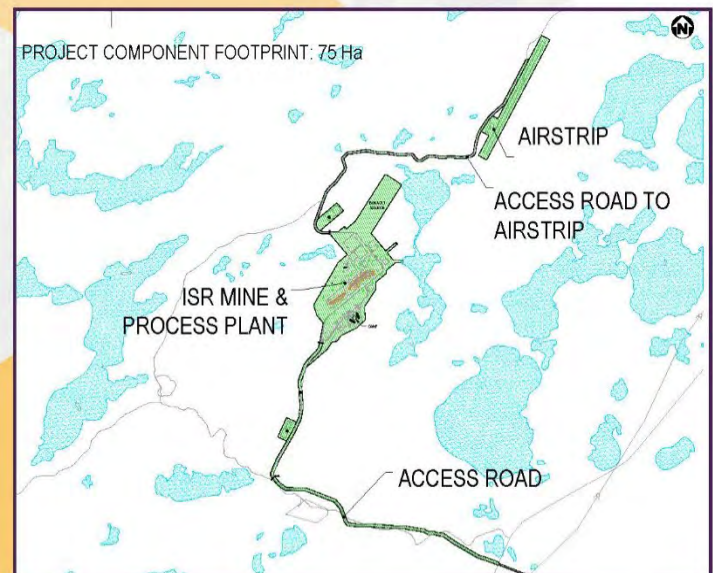
The Wheeler River Project is located in northern Saskatchewan in the Athabasca Basin.

## PROJECT FOOTPRINT

The main Project components are the in situ recovery mine and the processing plant.

## IN SITU RECOVERY

In situ recovery uses an acidic solution to leach uranium ores from the ground through a series of injection and recovery wells. The processing plant houses the tanks and equipment to process the uranium recovered from in situ recovery into yellowcake. Denison will sell the yellowcake to the market for use in nuclear power plants, supporting global efforts to reduce greenhouse gas emissions.



## VALUED COMPONENTS & PROJECT INTERACTIONS

Denison is assessing elements, called valued components, important to people or the environment, and the potential effects of the Project on these elements.





*Powering*  
**PEOPLE, PARTNERSHIPS  
AND PASSION**

# Open House

**Village of Ile a la Crosse**

**Rossignol High School - John Arcand Room**

**Oct 25, 2023**

**5:00pm to 8:00pm**

## Wheeler River Project

Come to meet with Denison staff, to discuss the Project, to share a meal, and to get a chance to win great door prizes.



**Information**



**Community Supper**



**Door Prizes**

This is a public event open to all residents and people of surrounding areas. Denison is working with Métis Nation - Saskatchewan to arrange separate meetings with Métis leadership and citizens to understand the distinct interests of the Métis in respect of the Project.

 **Denison Mines**

[redefiningmining.ca](https://redefiningmining.ca) | [denisonmines.com](https://denisonmines.com)



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## Birch Narrows Dene Nation

Administration

P.O. Box 40

Turnor Lake, Sask

S0M 3E0

Telephone: 306.894.2030

Facsimile: 306.894.2060

Email: [officemanager@birchnarrows.ca](mailto:officemanager@birchnarrows.ca)

January 16, 2024

Attention:

Ms. Janna Switzer  
Director, HSE Regulatory Compliance  
Denison Mines

Birch Narrows Dene Nation is in receipt of your letter dated November 29, 2023 where Denison provided a response to the Birch Narrows Dene Nation comments on the draft Environmental Impact Statement for the Wheeler River Project.

Thank you for this response. The attachment to your letter provides detailed technical responses to draft EIS comments, many of which were highly technical in nature. We appreciate the efforts of your team to respond to our comments on the draft EIS. Your responses on these items adequately address the questions raised by BNDN in respect of the Project.

I also see that you provided responses regarding more general aspects of the environment that are important to Birch Narrows Dene Nation Members such as the protection of the environment, water and land. I can confirm that these responses provide answers to the general areas of concern that are important to many of our community members, and find them satisfactory at this time.

I know you have been in discussions with Birch Narrows Dene Development Inc., about potential opportunities for our development corporation to participate in the advancement of your Wheeler River Project. I encourage these discussions to continue, and would ask you connect with Simon Pollard, our CEO, to continue these discussions. We would appreciate updates about progress with respect to your Project and this can occur through your interactions with BNDDI or to the Nation directly in the future.

Thank you,

Chief Jonathon Sylvestre  
Birch Narrows Dene Nation

cc: Simon Pollard - CEO, BNDDI  
Carolanne Inglis-McQuay – Director, Corporate Social Responsibility, Denison Mines





02 February 2024

Janna Switzer  
VP Environment Sustainability and Regulatory  
Denison Mines Corp.  
345 4th Avenue South  
Saskatoon, SK S7K 1N3

Phone: 306-652-8200  
Email: [jswitzer@denisonmines.com](mailto:jswitzer@denisonmines.com)  
[www.denisonmines.com](http://www.denisonmines.com)

Dear Janna:

Thank you for your letter of 23 November 2023 containing Denison's written responses to YNLR's concerns, as articulated in its intervention of Denison's draft environmental impact statement (EIS) for Wheeler River project. In general, your responses are a good start to addressing YNLR concerns and YNLR looks forward to ongoing discussions with Denison on this matter.

For context to this letter: YNLR acknowledges that we are currently in the iterative review stage of CNSC's environmental impact assessment (EIA) process for the Wheeler River project, where CNSC has identified those YNLR concerns that require further collaboration by Denison, with YNLR, to resolve in advance of the public review stage of the EIA process. We also note that CNSC further consolidated YNLR's EIS concerns into 45 issues, and YNLR has agreed to, at Denison's request in our initial meeting of 18 July 2023, to use CNSC's format for these 45 issues as the guide for further discussion. Additionally at that initial meeting, YNLR further requested that Denison's comments and responses to YNLR, for all communications relating to these issues, be in writing.

I will summarize YNLR's review of your November 2023 response in two parts starting with: 1) Denison's table of responses to YNLR's EIS concerns identified by CNSC; then, 2) Denison's technical memo on woodland caribou habitat, that was appended to Denison's response to YNLR's EIS concerns. As part of our response to the technical memo, YNLR is providing the results of its analysis of cumulative effects in the Wheeler River Watershed (attached as appendix 1).

I am looking forward to our scheduled 22 February 2024 meeting; I would like to discuss the agenda with you to allow for a discussion of caribou mitigation plans and offsets as a way forward for YNLR and Denison to mutually address cumulative effects and caribou management

## 1. YNLR EIS concerns

Most of Denison's responses to YNLR EIS concerns still do not adequately address our concerns. Specifically, YNLR has taken the position that it should be an active participant in the development of all components associated with the Wheeler River project. It is not acceptable to YNLR to be consulted after a plan and/or a process is already developed. We wish to be actively involved throughout any process on environmental, cultural and economic matters affecting Nuhenéné. We recognize that the YNLR Board of Directors, representing our communities, is actively involved in negotiations towards establishing an Impact Benefit Agreement for the Wheeler River project. In parallel with the

requirements of the EIA process; we anticipate further resolution of YNLR's concerns, to be discussed and addressed through these negotiations.

## 2. Denison's technical memo on woodland caribou habitat

YNLR's conclusion differs from Denison's EIS regarding the environmental impacts to woodland caribou habitat and the level of cumulative effects (CE) currently existing in the Wheeler River watershed (that encompasses the Regional Study Area addressed in the EIS). This position is based on YNLR's own CE analysis of this watershed (see Appendix 1). The methodology used in this analysis is derived from the Federal Woodland Caribou Recovery Plan (2020), which has been accepted and endorsed by both provincial and federal governments. In further substantiation of the Federal Plan and its guidance;

- YNLR has presented its preliminary cumulative effects methodology to federal and provincial government agencies; who have supported both the methodology and results obtained by YNLR;
- industry support for woodland caribou and CE comes from NexGen's recent EIS submission for their proposed mine in Nuhenéné. This EIS, for a different area of Nuhenéné with similar levels of existing disturbance, concludes that CEs on woodland caribou are significant; and
- additional government support comes from Saskatchewan's Ministerial Decision accepting NexGen's EIS submission, including its position on woodland caribou and CE, and through its requirement for a caribou mitigation and offset plan

It is YNLR's position that our CE analysis is a reliable representation of the current caribou habitat status in the Wheeler River watershed. Simply stated, the level of human and natural disturbance in the watershed already exceeds the federal caribou conservation guidelines, and therefore any additional disturbance from Denison's project should be deemed 'significant'. We therefore believe that the way forward for Denison and YNLR is a discussion on caribou mitigation and offset plans and we look forward to discussing this topic at our 22 February meeting.

To conclude YNLR acknowledges, with respect and appreciation, Denison's foresightedness, courage, and progressive nature when it set the standard for the Saskatchewan mining industry by being the first corporation to sign an Exploration Agreement with YNLR that addressed the environmental, economic, and social realities of conducting exploration in Nuhenéné. However, we do not believe that the draft EIS adequately reflects Denison's progressive approach and look forward to further collaborative discussions with Denison to produce an EIS and subsequent process that reflects a mutually beneficial partnership for future development in Nuhenéné.

Respectfully



Bruce Hanbidge  
Strategic Advisor  
Ya'thi Néné Land and Resource Office

attachment: YNLR's July 2023 Cumulative Effects Study Area with Suitable Caribou Habitat with Industrial Disturbance (500m)

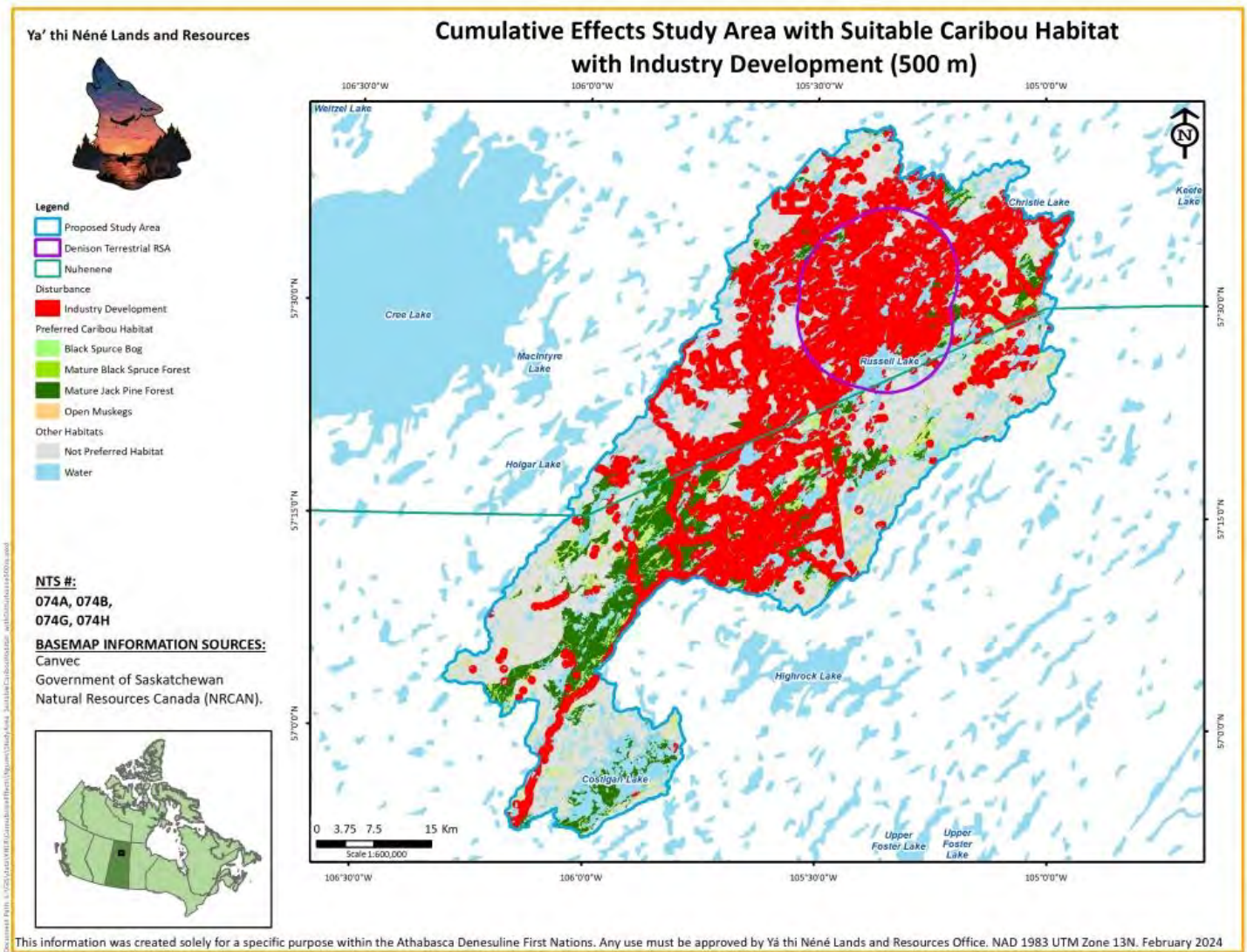
cc: Garrett Schimdt, Executive Director, YNLR

Ya'thi Néné Lands and Resources  
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## Appendix 1:



Cumulative effects analysis of natural and human disturbance in the Wheeler River Watershed, which contains Denison's regional study area outlined in blue. All human disturbances are buffered by 500m as per Environment Canada guidelines. Red indicates unsuitable habitat for woodland caribou (81%); green indicates suitable habitat for woodland caribou (19%).

**From:** [Carolanne Inglis-McQuay](#)  
**To:** [Bruce Hanbidge](#)  
**Cc:** [Megan Wallace](#); [Dana Kellett](#); [bfraser](#); [Jason Dietrich](#); [Janna Switzer](#)  
**Subject:** Follow up from Meeting on February 22, 2024  
**Date:** Friday, February 23, 2024 1:56:00 PM  
**Attachments:** [20240222-DEN\\_YNLR-WRP\\_CEA Meeting.pdf](#)  
[20240222-YNLR\\_DEN-Agenda-TechnicalMtg.docx](#)  
[S9\\_App 9-E Caribou Management Framework.pdf](#)  
[S16\\_App 16-C Summary of Monitoring & Follow-up Programs Wheeler River.pdf](#)  
[Denison WR Project Commitments Register FEB 2024.pdf](#)  
**Importance:** High

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Hi Bruce –

On behalf of Janna, Brian, Jason and myself, I want to extend our gratitude to you and your team for meeting with us to discuss cumulative effects and collaboration on programs going forward. The time and effort made by all to come prepared to work together to understand each others' perspectives, listen, and develop a path forward is truly appreciated.

As we committed to doing during the meeting, please find attached the following documents:

1. The final agenda for the meeting
2. Denison's presentation given during the meeting
3. The Caribou Management Framework (recently filed with the revised draft EIS)
4. Section 16 – Summary of Monitoring & Follow-up Programs for Wheeler River
5. Denison Commitments Register\_FEB2024, which provides the commitments made by Denison in the revised draft EIS and relevant documents as of the filing of the draft revised EIS (Feb 10, 2024)

As we stated in the meeting, we are committed to working with the YNLR in a manner requested of us. As such, we welcome your feedback on the draft Caribou Management Framework, and would welcome your direction on other areas (based on the monitoring and follow-up programs for Wheeler River or other) of interest going forward.

I look forward to hearing from you at your convenience.

Thank you again and have a good rest of your day,  
Carolanne

**Carolanne Inglis-McQuay**

Director, Corporate Social Responsibility

t: 306-652-8200 x 128 | f: 306-652-8202

345 4<sup>th</sup> Avenue South

Saskatoon, SK, Canada, S7K 1N3



TSX: DML | NYSE MKT: DNN



**From:** [Bruce Hanbidge](#)  
**To:** [Janna Switzer](#)  
**Cc:** [Carolanne Inglis-McQuay](#); [Garrett Schmidt](#)  
**Subject:** [\*\*]YNLR individual comments on Denison's responses.  
**Date:** Wednesday, March 13, 2024 2:46:19 PM  
**Attachments:** [image001.png](#)  
[review of Denison responses to YNLR Comments on their EIS - FINAL.pdf](#)

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**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Jana:

Please find attached YNLR's individual comments to Denison's responses to our concerns with the Denison's draft EIS

The comments address Denison's responses on pages 1 to 19, as these dealt with issues primarily relating to aquatics monitoring. Denison's responses on pages 19 to 39 dealt with woodland caribou, cumulative effects, and other terrestrial matters and as such they were addressed in our meeting of 22 February 2024 with Denison and their representatives from Ecometrix.

Respectfully

Bruce Hanbidge  
Strategic Advisor  
Ya'thi Néné Land and Resource Office



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*Bruce Hanbidge*

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November 23, 2023

Bruce Hanbidge  
Operations Manager  
Ya'thi Néné Land and Resource Office  
335 Packham Ave Unit 100  
Saskatoon, SK S7N 4S1

Sent via email: [bruce.hanbidge@yathinene.ca](mailto:bruce.hanbidge@yathinene.ca)

Dear Bruce:

Thank you for your letter dated July 20, 2023 shared with us following our meeting of technical experts to *generally* discuss the comments made by the Ya'thi Néné Land and Resource Office ("YNLR") on the Wheeler River Project ("the Project") draft Environmental Impact Statement ("EIS"), provided to the Canadian Nuclear Safety Commission ("CNSC") on March 4, 2023. During the meeting on July 17, 2023 we appreciated the opportunity to broadly discuss the concerns raised about the EIS.

Over the past months, Denison has been working diligently to consider the comments made by the YNLR and respond to the July 20, 2023 request to provide written responses to the comments and questions that were raised in the YNLR's intervention. As such we are pleased to provide you with comprehensive responses in this regard. Please note, the format for our responses is set out in table form, following the manner in which the CNSC provided Denison with the complete suite of public comments made on the EIS. Additionally, we've also attached a technical memo with respect to a series of comments raised with respect to woodland caribou habitat and the relationship between the Project and the existing disturbances on the landscape.

We trust this information will provide clear responses to the issues identified by YNLR, and demonstrate that the Project, as proposed and assessed, is a sustainable mining project, and we look forward to hearing from you upon your review of the materials enclosed.

Sincerely,

A handwritten signature in black ink, appearing to read 'Janna Switzer', with a stylized flourish at the end.

Janna Switzer  
Director, HSE Regulatory Compliance

Cc: Garrett Schmidt – YNLR  
Dana Kellett – YNLR

Attach: Table: Denison Responses to YNLR draft EIS Comments  
Memo: Denison Response to Woodland Caribou Habitat Comments



Denison's Responses to Comments from YNLR on the Wheeler River Project draft EIS  
November 23, 2023

**Denison's Responses to Comment from Ya'Thi Néné Lands and Resource Office (March 4, 2023) for the Wheeler River Project Environmental Impact Statement**

Ref. No.	Source	Reference to EIS, appendix, or supporting documentation	Comment Summary (all original submissions can be found on Canadian Impact Assessment Registry reference: 80171)	Denison Response
375	Ya'Thi Néné Lands and Resource Office (YNLR) (March 4, 2023)	EIS Executive Summary, p. 2	<p>Comments #1, 2 and 3, Appendix A: YNLR sees a potential benefit of the in-situ approach as it is designed to reduce the surface disturbance of the Project, and the potential leakage of contaminants from excavated rock and tailings. However:</p> <ul style="list-style-type: none"> <li>YNLR is concerned that the extraction of source water for the Project may have a negative effect on stream flows both below- and aboveground.</li> <li>YNLR is concerned with the potential effects of contaminants released during and after the Project.</li> </ul>	<p>Denison acknowledges these concerns and notes the comment from YNLR references the Executive Summary. Both of the areas of interest raised by the comment are addressed in the main part of the draft EIS and supporting appendices. Denison refers YNLR to the following sections for comprehensive evaluation of these aspects of the Project:</p> <ul style="list-style-type: none"> <li>Potential changes in surface water quantity as the result of the Project, including consideration of water taking activities, are presented in the hydrology assessment (draft EIS, Section 8.1).</li> <li>Potential changes to groundwater quantity and quality as the result of the Project, including consideration of the long-term implications of the mining method, are presented in the groundwater assessment (draft EIS, Section 7). Specifically, the 'future centuries' temporal scope of the assessment for Groundwater considers the period for which the highest COPC concentrations in groundwater are predicted to interact with surface water based on groundwater modeling described in Appendix 7-C. Due to the relatively long travel time (relatively low groundwater velocities) between the mining area (Section 7.6.2.2.3) and the surface water environment where groundwater/surface water interactions are expected, as well as the potential for chemical reactions along the groundwater flow pathway, a 'future centuries' scenario was deemed appropriate to fully assess potential future effects beyond the Project timeline (i.e., 0 to 38 years). The 'future centuries' temporal scope was also developed in recognition of the concerns raised by Interested Parties through the engagement process around the potential for the Project to influence water quality into the future.</li> </ul> <p>These assessments, completed in a transparent and rigorous manner, concluded that residual effects of the Project would not be significant. Follow-up and monitoring programs will be employed to confirm mitigation measures are functioning as planned and to confirm EA predictions. For example, a groundwater monitoring plan, including an excursion contingency plan and measures for adaptive management will be implemented for the Project.</p>

Denison's Responses to Comments from YNLR on the Wheeler River Project draft EIS  
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Ref. No.	Source	Reference to EIS, appendix, or supporting documentation	Comment Summary (all original submissions can be found on Canadian Impact Assessment Registry reference: 80171)	Denison Response
376	YNLR (March 4, 2023)	EIS Executive Summary, p. 2	Comment #4, Appendix A: based on the information from p. 2 of the Project Overview: YNLR assumes no permanent work camp will be constructed YNLR expects that a sizeable proportion of the Project workers will be hired from the local and regional area.	<p>Denison's Indigenous Peoples Policy sets out priority for Indigenous employment and procurement (among other items). With respect to employment, as noted in Section 13.3.2.1 of the EIS, Residents of Saskatchewan's North (i.e., those resident in the northern administration district of Saskatchewan, inclusive of YNLR) are prioritized for employment as an expected condition of the Surface Lease Agreement, similarly for goods and services to service the Project. With respect to procurement, Denison has established an internal procurement policy approach. The approach requires that Denison consider businesses within the local study area first and the Northern Administrative District second, prior to looking elsewhere (southern Saskatchewan and/or outside of Saskatchewan) throughout all phases of the Project. YNLR businesses would fall in the category of northern Saskatchewan businesses, which would place them in line for second preference if project needs cannot be met within the local study area.</p> <p>Details on the Project components are provided in EIS Section 2. The Project will be operated as a fly-in/fly-out mine, meaning the opportunities for interactions between the workforce and Indigenous communities are limited as workers will be transported by air directly to the site. The proposed camp or accommodations facility is anticipated to be a turnkey building manufactured off site and assembled and commissioned on site. The building's design will be sized to accommodate a peak load of about 190 individuals during Operation; however, due to its modularized design, additional modules can be easily installed should additional beds be required in the future.</p> <p>Section 13 provides the assessment for the key indicator of employment and training, which is a component of the Economy Valued Component. A summary of residual environmental effects on employment and training is found in Table 13.5-2. Employment opportunities represent direct and indirect benefits associated with construction and operation of projects, particularly in the vicinity of communities where unemployment is typically high.</p> <p>Additionally, because the property is located on Crown Land, a mineral surface lease agreement will be negotiated with the Province, specifically the Ministries of Environment and Government Relations. The agreement grants surface rights for the purpose of accessing the land to extract minerals under the Crown Resources Land Regulations. The mineral surface lease agreement</p>



Denison's Responses to Comments from YNLR on the Wheeler River Project draft EIS  
November 23, 2023

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				provides long term rental of Crown land for mining and milling in Saskatchewan. The agreement also contain specific commitments for environmental protections for the life of the project, OH&S protocols, reporting requirements, and socio-economic benefits for residents of northern Saskatchewan.
377	YNLR (March 4, 2023)	EIS Executive Summary, p. 2	Comment #5, Appendix A: YNLR is concerned with the potential increase in road and off- road traffic affecting wildlife and fisheries sustainability	<p>Please note that the Project will not change public access to the area. The existing gate on Highway 914 near Cameco's Key Lake Operation will remain in place and no changes to the gate and the process for controlling access to Highway 914 north of the Key Lake Operation are proposed as part of the Wheeler River Project. The proposed operation is fly-in, so Project related traffic to the area would only be related to deliveries of materials to and from the site. On-site staff will not have access to personal (or company) vehicles and will largely be "confined" to the camp and work areas during their shifts.</p> <p>Refer to draft EIS, Section 12 Quality of Life for the assessment of potential Project effects on the Key Indicator of Infrastructure and services (traffic) and the associated measurable parameter of change in traffic volumes and types and risk of accident.</p>
378	YNLR (March 4, 2023)	EIS Executive Summary, p. 2	Comment #6, Appendix A: YNLR supports this built-in precautionary approach to the Project's risk assessment. However, given the lengthy timeline of the Project, YNLR would like to see that lost (i.e., unmitigated) wildlife and fisheries habitat be offset in some manner. A response to this should be approached through an anticipated impact benefit agreement.	<p>Through the EA process to date, Denison believes it has identified areas where offset may be required based on Project-Environment interactions. To this end, Denison has made a specific commitment to develop a Caribou Mitigation Plan (a preliminary draft of which has been submitted in response to provincial and federal EIS review comments) that includes provision for potential habitat offset. Details of the habitat offset will be developed in collaboration with Saskatchewan Ministry of Environment. Additional detail regarding the Caribou Mitigation Plan is also provide in the memo that is attached to this comment disposition table regarding the Project-specific cumulative effects assessment (CEA).</p> <p>It is also important to consider the site decommissioning plan within this context, though such restoration activities are not typically discussed as "offsets". Denison's decommissioning commitment is to return the land back to the Province of Saskatchewan for unrestricted surface land use post-closure. The Project's Conceptual Decommissioning Plan (CDP) is included in the draft EIS. The details of decommissioning and restoration will be refined over time as the Project proceeds. A Preliminary Decommissioning Plan (PDP) will be developed by Denison to support licensing and permitting</p>

Denison's Responses to Comments from YNLR on the Wheeler River Project draft EIS  
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Ref. No.	Source	Reference to EIS, appendix, or supporting documentation	Comment Summary (all original submissions can be found on Canadian Impact Assessment Registry reference: 80171)	Denison Response
				<p>applications. Prior to executing decommissioning activities, Denison will prepare and submit a Detailed Decommissioning Plan (DDP) to regulators for their review and acceptance, which builds on the PDP.</p> <p>No other specific needs for "offset" have been identified based on the effects assessment.</p> <p>Denison will continue to engage with YNLR on topics of interest.</p>
379	YNLR (March 4, 2023)	EIS Executive Summary, p. 2	<p>The EIS Executive Summary outlines mitigation measures, monitoring requirements, and commitments needed for Denison to have confidence that Project is operating as planned and that the actual effects resulting from Project Construction, Operation, and Decommissioning are at or below predicted effects.</p> <p>Comment #7, Appendix A: Despite these reassuring statements, YNLR is aware that predictions may fall short, hence the need for close collaboration with Indigenous Peoples, communities, and organizations, including their input into the design and implementation of transparent and statistically-robust project monitoring programs.</p>	<p>Denison acknowledges the comment and is committed to ongoing engagement and dialogue with interested parties with respect to monitoring. Details of follow-up and monitoring plans will be prepared in consultation with Indigenous groups, other interested parties, and relevant federal and provincial agencies. YNLR will be informed throughout the monitoring program design and implementation process. Monitoring program design and implementation will be guided by the following principles: programs will meet regulatory requirements, programs will confirm the effectiveness of mitigation measures and predictions made in the assessment, programs will be implemented in an adaptive management framework (if/where applicable) to reduce effects during the lifetime of the Project, and programs will have spatial boundaries that are sufficiently extensive to measure EIS predictions.</p>
380	YNLR (March 4, 2023)	EIS Executive Summary, p. 2, 12, 44, 45 and 47	<p>Comments #8, 10, 21 and 22, Appendix A: YNLR remains concerned about the nature and disposition of project contaminants during and after the mining process.</p> <ul style="list-style-type: none"> <li>YNLR supports the Project outcome of lower aboveground disturbance, it retains concerns about the management inputs and outputs of the ISR method, particularly project water sources, quantity, and release along with its associated contaminants.</li> <li>The release of contaminants before and after the Project's completion worries YNLR, which sets a high priority on clean and abundant groundwater and surface water. The Indigenous People, communities, and organizations YNLR represents will be here long after mine decommissioning, so minimizing this risk with statements regarding the length of time it takes is not helpful.</li> </ul>	<p>Denison acknowledges the comment and concerns raised by YNLR. Denison believes the assessment of potential effects, such as those highlighted in the review comment, have been considered in a robust manner in the EIS and appropriate mitigations have been proposed. Denison is committed to ongoing engagement and dialogue with interested parties on key Project aspects such as that referenced in the review comment.</p> <p>With specific reference to site decommissioning the following is noted. Denison's decommissioning commitment is to return the land back to the Province of Saskatchewan for unrestricted surface land use post-closure. The Project's Conceptual Decommissioning Plan (CDP) is included in the draft EIS. The details of decommissioning and restoration will be refined over time as the Project proceeds. A Preliminary Decommissioning Plan (PDP) will be developed by Denison to support licensing and permitting applications. Prior to executing decommissioning activities, Denison will prepare and submit a Detailed Decommissioning Plan (DDP) to regulators for their review and acceptance, which builds on the PDP.</p>

Denison's Responses to Comments from YNLR on the Wheeler River Project draft EIS  
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			<ul style="list-style-type: none"> <li>As with groundwater, YNLR places a high value on the quantity and quality of surface waters. Monitoring of water will be critical, and YNLR expects to be consulted and heavily involved with respect to this activity.</li> </ul>	Please also see Denison's response to YNLR comments 1, 2 and 3 above, for further relevant information.
381	YNLR (March 4, 2023)	EIS Executive Summary Freeze Wall, p. 12 and 13	<p>Comments #11, 12 and 13, Appendix A: Containment of the mining solution and uranium bearing solution within the mining area will be achieved through a defence-in-depth approach with three levels of containment.</p> <ul style="list-style-type: none"> <li>YNLR assumes that information and data exist with respect to the environmental safety of freeze wall technology in uranium mining operations within Saskatchewan. Has Denison reviewed these data and are they considered/presented as part of this EIS? If not, why not?</li> <li>What happens to the freeze wall and its retained contaminants at the end of the Project's life? – despite safeguards and remediation, it has potential to release contaminants after mining is completed.</li> <li>Monitoring and adaptive management are important components of sustainable uranium mining. YNLR expects to be consulted/included in the design and implementation of the Project's environmental monitoring programs.</li> </ul>	<p>Denison notes this comment is on the Executive Summary and that more detailed information is available in the main part of the draft EIS e.g., Section 2 Project Description and Section 7 Geology and Groundwater (and associated appendices).</p> <p>Ground freezing technology is well established and used widely throughout the world. Its use in a mining environment was pioneered in Saskatchewan's potash mining industry for shaft sinking activities, and later adapted for use in Saskatchewan's uranium industry. Ground freezing to control and eliminate groundwater from entering mining areas is a fundamental component of two existing Athabasca Basin underground uranium mines: Cameco Corporation's McArthur River Operation and Cigar Lake Operation. Freeze walls, when fully developed, are capable of withstanding significant external pressures because the ice in the pore voids greatly improves the bulk strength of the soil. For example, in the province of Saskatchewan, ground freezing is used to support the sinking of deep potash mine shafts, which must penetrate through the Mannville formation at a depth between 400 and 500 m below surface. The Mannville formation is often described as saturated, unconsolidated beach sand and it would not support shaft excavation in a thawed state. Freezing is used to create a structural and impermeable wall up to 5 m thick, which can resist a stress gradient driven by full hydrostatic and/or lithostatic pressures on the outside of the wall, and an open to atmosphere excavation within the shaft. This loading condition is much more extreme than any condition the freeze walls at the Phoenix deposit will experience because the interior side of the freeze wall where active ISR mining is occurring is not open to atmosphere and is fluid filled in the same way that the regional groundwater system is on the exterior side of the freeze wall, creating a balanced pressure system, where loading is equal on both the interior and exterior sides.. While freeze walls are very strong when fully developed, they are also plastic in nature. This means that they can slowly deform without failing in response to localized ground deformations. As the freeze wall deforms towards a lower stress zone, it maintains its thickness and integrity. While the above example referred to potash shafts, other examples can be drawn from the experience</p>





Denison's Responses to Comments from YNLR on the Wheeler River Project draft EIS  
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				<p>at the McArthur River or Cigar Lake uranium mines. At McArthur River, open stopes are generated directly adjacent to a freeze wall that is a nominal 4 m thick. At Cigar Lake, open mine cavities 10 m high and several metres in diameter commonly exist within the frozen ground. Neither site has had a breach of the freeze wall during mining activity. Given that the freeze wall at Denison will be much thicker than at McArthur River and that it will be located up to 25 m from the ore zone, it is not anticipated that it will be exposed to a stress environment that will put it at risk.</p> <p>Since the mine design includes the freeze wall as a tertiary management strategy, movement of mining solution is restricted and contained horizontally during operations. Wellfield pumping is the primary form of containment and provides the hydraulic containment to keep mining solution within the 50 m mining area (see Section 2.2.1.4.2). During the operation phase, and under normal operational conditions there is no interaction between the mining zone and surface water or down gradient groundwater environments, and the groundwater assessment (Section 7) focuses on the post-decommissioning period following removal of the freeze wall, once the groundwater flow paths return to pre-mining conditions. During mining area remediation (see Section 2.3.3.1.1), the freeze wall will remain in place until decommissioning objectives are achieved. Refinement of the mining area decommissioning objectives and associated modelling will be done through updates to the Decommissioning Plan, and will be bounded by the objectives evaluated in the EIS. To carefully evaluate how constituents dissolved in the remediated groundwater within the mining area may migrate away from and interact with the environment, a rigorous numerical model of groundwater flow and chemical constituent behaviour along the groundwater flow path was used as a predictive tool. The model is based on proven scientific principles and processes (e.g., groundwater flow, contaminant transport, and geochemical reaction processes) and allowed future conditions to be evaluated. Migration of dissolved constituent concentrations along the groundwater flow path from the mining area to Whitefish Lake (the local surface water receptor) is predicted to take hundreds to thousands of years, with concentrations remaining below values that would result in an environmental risk.</p> <p>Given the nature of the ISR mining method that will be employed by the Project groundwater monitoring is an important consideration. The</p>



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				<p>groundwater monitoring plan would be developed in consideration of how Project facilities and activities could interact with the groundwater environment and groundwater users to define monitoring needs (locations, frequencies and constituents). Data generated from the groundwater monitoring plan would serve various purposes, such as to assess performance and the controls associated with the ISR process, demonstrate compliance with internal action levels, assess performance of emissions control systems, and contribute to the understanding of the potential influence of the Project on the groundwater environment. The groundwater monitoring program would demonstrate, during each Project phase, that:</p> <ul style="list-style-type: none"> <li>• excursions are not occurring; if excursions do occur, an early warning/timely signal will be provided of when and where they are occurring such that appropriate further evaluation and actions can be undertaken;</li> <li>• commitments made in the EA are being achieved; and</li> <li>• protection of groundwater end use/receiving environment is being achieved.</li> </ul> <p>The groundwater monitoring plan would be informed by existing local and traditional knowledge, ongoing engagement activities with interested parties, information generated by development of EIS and its supporting documents, relevant guidance, such as CSA Standard N288.7-15, Groundwater Protection Programs at Class I Nuclear Facilities and Uranium Mine and Mills as well as any applicable licenses, approvals, and permits.</p>
382	YNLR (March 4, 2023)	EIS Executive Summary, p.16	Comment #14, Appendix A: Will the released radon gas be of any concern to natural resources, such as fish and wildlife?	<p>Inhalation pathway to terrestrial wildlife and birds was included in the Ecological Risk Assessment (EcoRA). Please refer to the draft EIS Appendix 10-A Section 5 and an excerpt is provided below for reference:</p> <p>Exposure pathways consider the various routes by which radionuclides and/or chemicals may enter the body of the receptor, or for radionuclides, may exert effects from outside the body. Exposures to environmental media may be direct (i.e., by contact) or indirect (i.e., via constituent transport through the food chain). For each type of ecological receptor, draft EIS Appendix 10-A Table 5-5 summarizes the relevant exposure pathways to various environmental media including air, surface water, soil, and sediment. Airborne COPCs partition to soil and plants. For most COPCs, ingestion pathways dominate over inhalation and air immersion. The latter pathways</p>

Denison's Responses to Comments from YNLR on the Wheeler River Project draft EIS  
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				<p>are considered minor pathways in the EcoRA, but inhalation was included in the IMPACT model and is thus included in draft EIS Appendix 10-A Table 5-5.</p> <p>Exposure to constituents that may deposit from air to surface water was not considered, as that pathway is considered negligible according to CSA N288.1-20. As such, a pathway of radon in air to aquatic receptors such as fish was not evaluated. Radiological dose to aquatic receptors is evaluated through water and sediment exposure, as appropriate based on the receptor's characteristics. For fish, aquatic plants, and aquatic invertebrates, contact with water and constituent uptake from water via bioaccumulation represents the main exposure pathway. Direct contact or uptake from sediment are also considered for benthic invertebrates and bottom-feeding fish.</p>
383	YNLR (March 4, 2023)	EIS Executive Summary, p.18 Land and Resource Use, p. 11- 50 to 11-52	<p>Comment #15, Appendix A: While Project water reuse is laudable, its overall conservation and management are significant concerns for YNLR, particularly the quantities removed from the ecosystem and the fate of contaminated water released back into the ecosystem from the Project that end up in Wollaston Lake. YNLR expects to be consulted/included in the design and implementation of the Project's environmental monitoring programs.</p> <p>Comment #85, Appendix A: YNLR remains concerned with the potential effects of Project contamination on culturally important natural resources. These concerns stem from the nature of the materials being mined, and the novel method (ISR) by which they are being extracted. Northern residents and Indigenous Peoples will be living here long after the mine is exhausted, thus effective monitoring is critical, as is the inclusion of impacted Aboriginal and Treaty rights holders in the design and implementation of arm's length, transparent, and statistically-robust monitoring programs.</p>	<p>The specific activity of water withdrawal from Whitefish Lake was assessed in the draft EIS, Section 8.1. The conservative estimate of water withdrawal would result in a reduction of flow of about 3% at times of low flow and the lake level could change by 1cm; this minor change is beyond the ability of monitoring techniques to practically measure, and the assessment concluded that the Project would not result in a significant effect on surface water quantity (hydrology). It is noted that there will be a separate permitting process that will consider water withdrawal for Project support that will occur following the EIS. Monitoring, including of water withdrawal rates and of potential effects (e.g., change in water flow, change in lake levels) will be implemented as the Project moves forward.</p> <p>Denison is committed to sharing information with Indigenous Communities of Interest (COIs) in a mutually agreed-upon fashion. Overall, the approach that will be utilized with respect to Indigenous community engagement will be aligned with Denison's Indigenous Peoples Policy. Denison's Indigenous Peoples Policy commits the company to respecting Indigenous knowledge and values regarding environmental stewardship and Indigenous peoples' connection to the land. The relevant monitoring plans for the species/resources that support a traditional diet will reflect and incorporate these values and will be reflective of the Indigenous COIs priorities. The monitoring plans when drafted will include more detail about communication methods and their effectiveness would be assessed through ongoing engagement with Indigenous communities.</p>




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384	YNLR (March 4, 2023)	EIS Executive Summary, p. 26	<p>Comments #16 and 17, Appendix A: YNLR supports Denison's corporate Indigenous Peoples Policy (IPP) and looks forward to collaborating with Denison to ensure that the Project's socioeconomic benefits reach local Indigenous People. YNLR acknowledges that Denison incorporated the YNLR report into the EIS and looks forward to further working with the company collaboratively regarding the rights of Indigenous People.</p> <p>YNLR is interested in an impact benefit agreement with Denison ensuring mutual benefits from the Project and co-management of environmental monitoring and mitigation.</p>	<p>As outlined in Denison's Indigenous Peoples Policy, Denison is committed to respecting Indigenous knowledge and values regarding environmental stewardship and Indigenous peoples' connection to the land, and to minimize potential effects, wherever possible.</p> <p>Through continued and focussed engagement with the YNLR since the YNLR identified its interest in the Project in 2019, Denison has come to better understand the Athabasca Denesų́líné communities' relationship to the Project site and current use of the areas for traditional purposes. Denison acknowledges that the Hatchet Lake Denesų́líné First Nation has the potential for established Indigenous and Treaty Rights proximal to the Project. The Hatchet Lake Denesų́líné First Nation, as represented by the YNLR will be identified as an Indigenous COI in the updated EIS. Denison continues to work with its Indigenous Communities of Interest with reserves and residential communities most proximal to the Project. Denison is committed to continual improvement in relation to such collaborative monitoring programs, in order to adapt to areas of interest which can change over time. YNLR will be informed throughout the monitoring program design and implementation process.</p> <p>A list of commitments, including specific commitment or mitigation measures related to Project effects as an outcome of engagement, made in the draft EIS, throughout the Federal information request period and the Provincial comment response period, will be included with the submission of the final EIS. For clarity, this would not include any private, confidential accommodations made under contractual agreements.</p>
385	YNLR (March 4, 2023)	EIS Executive Summary, p. 26, 28 and 59 Land and Resource Use, p. 11- 52 and 11-53	<p>Comments #18, 19 and 29, Appendix A:</p> <ul style="list-style-type: none"> <li>Indigenous People, communities, and organizations YNLR represents are rights holders, and are not to be arbitrarily grouped and treated as non-rights holders. This is an important distinction, as the rights they hold are constitutionally protected. This must be respected and recognized in the ongoing dialogue between the company and Indigenous Peoples through their chosen representatives, like YNLR.</li> <li>The Athabasca Denesų́líné people are rights holders and not stakeholders with respect to the Project. These rights include full access and use of the natural resources of the</li> </ul>	<p>Denison acknowledges the comment. In March 2019, Denison was notified by the YNLR that the Indigenous communities within the local Athabasca communities identified were interested in the Project and that YNLR held the Duty to Consult from these communities. Since receiving correspondence from the YNLR office in 2019 Denison has been collaboratively working with the YNLR office in a mutually agreed upon manner and will continue to do so.</p> <p>Denison's approach to identifying Indigenous COIs considered several factors as identified in Section 4.3.1 of the EIS. Being signatories of Treaty 10 was among, but not the sole applicable criteria, and not all Treaty 10 communities are considered as Indigenous COIs for the Project. Through continued and focussed engagement with the YNLR since the YNLR identified its interest in the Project in 2019, Denison has come to better understand the Athabasca</p>

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			<p>area. Any proposed infringement on these rights by the Project will need to be discussed well ahead of the Project's start date.</p> <p>Comment #86, Appendix A: The EIS minimizes effects of Lands and Waters availability and access on northern residents and Indigenous Peoples.</p> <p>Any impairment to the ability of Indigenous Peoples to utilize their Aboriginal and Treaty rights to the use of natural resources for their traditional activities constitutes an infringement of those constitutionally protected rights and must be justified. Rigorous examination of these impacts and negotiated compensation for these impacts should therefore be seriously considered.</p>	<p>Denesųliné communities' relationship to the Project site and current use of the areas for traditional purposes. Denison acknowledges that the Hatchet Lake Denesųliné First Nation has the potential for established Indigenous and Treaty Rights proximal to the Project. The Hatchet Lake Denesųliné First Nation, as represented by the YNLR will be identified as an Indigenous COI in the updated EIS.</p> <p>With respect to Denison's consideration of Indigenous Knowledge shared by the Athabasca Denesųliné knowledge sources, Denison notes that Tables 3.5-1 will be updated to better reflect where the YNLR's An Exploration of Recorded Athabasca Denesųliné Traditional Knowledge, Land Use and Occupancy Information in the Vicinity of the Denison Mines Wheeler River Project, which was included as an Appendix to the EIS, was considered and included as Table 3.5-1 does not reflect all instances the report was utilized.</p>
386	YNLR (March 4, 2023)	EIS Executive Summary, p. 52	<p>Comments #24 and 25, Appendix A: Fish, fish habitat, and fish health are all extremely important to northern people of Saskatchewan, and especially Indigenous People. Wild fish are a culturally important source of protein and provide economic opportunities in the form of commercial fishing and recreational angling.</p> <ul style="list-style-type: none"> <li>YNLR will be eager to and expects to be involved in collaborating with Denison in the future monitoring of these vital natural resources.</li> <li>Based on existing federal fishers legal and policy requirements, YNLR expects that all fish habitat destroyed or altered by the Project will be more than offset.</li> </ul>	<p>Denison has committed to collaborating with Indigenous Communities of Interest with reserves and residential communities most proximal to the Project on specifics of environmental monitoring regimes, suited to each of their interests and needs. As part of these programs, Denison and the Communities of Interest will be sharing information in an agreed-upon fashion. Denison expects that important country foods harvested for food and cultural purposes (e.g., moose, fish, etc.), surface water quality, and other areas of interest will form parts of these monitoring programs, including other areas of potential concern as they evolve over time. It is expected that the data collected through such monitoring regimes as described above would also be relevant to other Indigenous nations who may have interest in the Project.</p> <p>The specific potential for need for approval(s) under the Fisheries Act related to effects on fish and fish habitat (i.e., harmful alteration, disruption and destruction) resulting from Project activities has been assessed and presented in the draft EIS. Based on the assessment, Denison has determined that effects can be avoided and mitigated and therefore there will be no need for fish habitat offsets under the <i>Fisheries Act</i>.</p>
387	YNLR (March 4, 2023)	EIS Executive Summary, p. 54 and 55	<p>Comment#26, Appendix A: YNLR places a high priority on wildlife and wildlife habitat, from both ecological and sociocultural perspectives. Given the long-time frame of the Project, YNLR are concerned about the lack of significance</p>	<p>Through the EA process to date, Denison believes it has identified areas where offset may be required based on Project-Environment interactions. To this end, Denison has made a specific commitment to develop a Caribou Mitigation Plan (a preliminary draft of which has been submitted in response</p>

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			<p>associated with the residual and cumulative effects assessments of all ecological VCs. YNLR believes that the addition of this mine with its associated disturbances will have a cumulative effect on wildlife, especially for woodland caribou, as the area is already crisscrossed with many kilometres of seismic cut lines through the LSA, RSA and beyond (Figure 9.2-6, page 9-83, EIS and Appendix 9B).</p> <p>YNLR maintains that in order for the Project to meaningfully attempt to mitigate this concern, the company must work with Indigenous partners to create an effective habitat offset plan for this species. This should form part of any project approval. Such a plan should, for instance, include steps to restore the considerable caribou habitat degraded by past mineral exploration activities.</p>	<p>to provincial and federal EIS review comments) that includes provision for potential habitat offset. Details of the habitat offset will be developed in collaboration with Saskatchewan Ministry of Environment. Additional detail regarding the Caribou Mitigation Plan is also provide in the memo that is attached to this comment disposition table regarding the Project-specific cumulative effects assessment (CEA).</p> <p>It is also important to consider the site decommissioning plan within this context, though such restoration activities are not typically discussed as "offsets". Denison's decommissioning commitment is to return the land back to the Province of Saskatchewan for unrestricted surface land use post-closure. The Project's Conceptual Decommissioning Plan (CDP) is included in the draft EIS. The details of decommissioning and restoration will be refined over time as the Project proceeds. A Preliminary Decommissioning Plan (PDP) will be developed by Denison to support licensing and permitting applications. Prior to executing decommissioning activities, Denison will prepare and submit a Detailed Decommissioning Plan (DDP) to regulators for their review and acceptance, which builds on the PDP.</p> <p>Denison will continue to engage with YNLR on topics of interest. </p>
388	YNLR (March 4, 2023)	EIS Executive Summary	Comment #27, Appendix A: Indigenous People have brought forward concerns with the extensive network of seismic cut lines at several places in the EIS.	<p>Through the EA process to date, Denison believes it has identified areas where offset may be required based on Project-Environment interactions. To this end, Denison has made a specific commitment to develop a Caribou Mitigation Plan (a preliminary draft of which has been submitted in response to provincial and federal EIS review comments) that includes provision for potential habitat offset. Details of the habitat offset will be developed in collaboration with Saskatchewan Ministry of Environment. Additional detail regarding the Caribou Mitigation Plan is also provide in the memo that is attached to this comment disposition table regarding the Project-specific cumulative effects assessment (CEA).</p> <p>It is also important to consider the site decommissioning plan within this context, though such restoration activities are not typically discussed as "offsets". Denison's decommissioning commitment is to return the land back to the Province of Saskatchewan for unrestricted surface land use post-closure. The Project's Conceptual Decommissioning Plan (CDP) is included in the draft EIS. The details of decommissioning and restoration will be refined over time as the Project proceeds. A Preliminary Decommissioning Plan (PDP) will be developed by Denison to support licensing and permitting</p>



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				<p>applications. Prior to executing decommissioning activities, Denison will prepare and submit a Detailed Decommissioning Plan (DDP) to regulators for their review and acceptance, which builds on the PDP.</p> <p>Denison will continue to engage with YNLR on topics of interest.</p>
389	YNLR (March 4, 2023)	EIS Executive Summary, p. 59	Comment #28, Appendix A: While the overall direct footprint of the Project is relatively small, YNLR maintains that any wildlife habitat destroyed or altered by the Project should be more than offset or compensated for in some fashion. One example would be the additional disturbance created by the proposed Highway 914 extension. This needs to be accounted for by Denison.	<p>To be clear, Denison's proposed Project does not require any extension to the existing Highway 914. There is a Highway 914 extension project under evaluation by the Ministry of Highways, but this project is not related to or ancillary to the Wheeler River Project.</p> <p>As noted in response to other comments, through the EA process to date, Denison believes it has identified areas where offset may be required based on Project-Environment interactions. To this end, Denison has made a specific commitment to develop a Caribou Mitigation Plan (a preliminary draft of which has been submitted in response to provincial and federal EIS review comments) that includes provision for potential habitat offset. Details of the habitat offset will be developed in collaboration with Saskatchewan Ministry of Environment. Additional detail regarding the Caribou Mitigation Plan is also provide in the memo that is attached to this comment disposition table regarding the Project-specific cumulative effects assessment (CEA).</p> <p>It is also important to consider the site decommissioning plan within this context, though such restoration activities are not typically discussed as "offsets". Denison's decommissioning commitment is to return the land back to the Province of Saskatchewan for unrestricted surface land use post-closure. The Project's Conceptual Decommissioning Plan (CDP) is included in the draft EIS. The details of decommissioning and restoration will be refined over time as the Project proceeds. A Preliminary Decommissioning Plan (PDP) will be developed by Denison to support licensing and permitting applications. Prior to executing decommissioning activities, Denison will prepare and submit a Detailed Decommissioning Plan (DDP) to regulators for their review and acceptance, which builds on the PDP.</p> <p>No other specific needs for "offset" have been identified based on the effects assessment.</p>
390	YNLR (March 4, 2023)	EIS Executive Summary Monitoring Programs, p. 74	Comment #30, Appendix A: YNLR expects to be included as part of the design and implementation of all monitoring programs. All such programs should be transparent, arm's length, include significant	Denison has committed to collaborating with Indigenous Communities of Interest with reserves and residential communities most proximal to the Project on specifics of environmental monitoring regimes, suited to each of their interests and needs. As part of these programs, Denison and the



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			involvement and participation of Indigenous People, communities, and organizations and be statistically robust.	Communities of Interest will be sharing information in an agreed-upon fashion. Denison expects that important country foods harvested for food and cultural purposes (e.g., moose, fish, etc.), surface water quality, and other areas of interest will form parts of these monitoring programs, including other areas of potential concern as they evolve over time. It is expected that the data collected through such monitoring regimes as described above would also be relevant to other Indigenous nations who may have interest in the Project.
391	YNLR (March 4, 2023)	EIS Executive Summary, p. 76	<p>Comment #31, Appendix A: The EIS states: "On the basis of the Project information and related evaluation and assessment of effects, Denison believes that the Project can be constructed, operated, and decommissioned in a manner that is not likely to cause significant adverse effects to the biophysical or human environments."</p> <p>This is perhaps an overly optimistic conclusion. However, YNLR is willing to discuss how the company moves forward and is interested in creating more formal processes to achieve this, such as the signing of an impact benefit agreement.</p>	Denison notes YNLR's perspective on this.
392	YNLR (March 4, 2023)	Section 1.0 Project Introduction and Overview, p. 1-1, 1-5 and 1-18	<p>Comments #32 and 33, Appendix A: The Project is located within Nuhenéné and of principal concern to YNLR is that the Project be fully sustainable with respect to cultural rights and traditions, socioeconomic equity, and environmental protection. To achieve this end, YNLR expects Denison to work collaboratively with the people of Nuhenéné through the YNLR office.</p> <p>YNLR supports the sustainable mining of uranium within Nuhenéné.</p>	In March 2019, Denison was notified by the YNLR that the Indigenous communities within the local Athabasca communities identified were interested in the Project and that YNLR held the Duty to Consult from these communities. Since receiving correspondence from the YNLR office in 2019 Denison has been collaboratively working with the Nuhenéné through the YNLR office in a mutually agreed upon manner and will continue to do so.
393	YNLR (March 4, 2023)	Section 8.0 Aquatic Environment, p. 8-38	Comment #34, Appendix A: The EIS recognized that the utilization of water will result in an adverse impact on the drainage but dismissed the issue given that a reduction in the stream flow rate is expected to be less than 3%. It would therefore be prudent to closely monitor the flow regime to identify possible adverse effects throughout the life of the Project.	In the draft EIS, conservative estimate of water taking would result in a reduction of flow of about 3% at times of low flow and the lake level could change by 1cm. While this incrementally small change in water quantity is beyond the ability of monitoring techniques to practically measure, Denison will conduct hydrological monitoring. Monitoring will likely include streamflow and lake level monitoring as well as continuous monitoring with stage dataloggers with details of monitoring plans to be finalized to support Project permitting and licensing.



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394	YNLR (March 4, 2023)	Section 8.0 Aquatic Environment, p. 8-40, 8-42, 8-98 and 8-99	<p>Comment #35, Appendix A: Utilizing the extent of the LSA and the fact that it does not overlap with projects located within the same drainage system seems to be quite arbitrary and convenient. By this criterion, each mine does not trigger a cumulative effect according to the EIS, although they are all additive to the water flow regime. This methodology then arbitrarily and conveniently determines that "mitigation measures" for each of the mines is not warranted since there was a determination of no cumulative effects in sections 8.1.7.1, 8.1.7.2, 8.1.7.3 and 8.1.7.4.</p> <p>Comment #36, Appendix A: The determination of Cumulative Effects Characterization and the resultant Determination of Significance is highly subjective, therefore a much more extensive monitoring program is required. Such a program should start prior to the construction phase and carry on at least several years into the operation portion of the Project to at least demonstrate local and cumulative effects of mining projects within the watershed.</p> <p>Comment #37, Appendix A: YNLR agrees that the hydrological monitoring program remain throughout the life of the Project but as per the above, the study should have a much broader mandate in order to measure local and regional effects on VCs.</p> <p>Comment #41, Appendix A: YNLR is concerned that the conclusion that the residual effects from Project operations will not have an adverse effect on surface water is highly speculative. Again, this indicates the need for a comprehensive monitoring program to validate the speculation on water quality with rigorous statistical evidence.</p> <p>Comment #42, Appendix A: YNLR questions the logic track that states, "additional mitigation measures not warranted" because of the determination of no cumulative effects, then "a determination of significance is not warranted" as no cumulative effects were identified for water quality because surface water impacts are</p>	<p>In terms of watersheds and nearby uranium operations, only Key Lake Operation's drainage area interacts with the Wheeler River Project. Drainages from both operations would combine at Russell Lake. As such, the Key Lake Operation was included as an existing project in the CEA sections of the aquatic environment. The drainages associated with McArthur River Operation and Cigar Lake Operation are separate from the Project.</p> <p>The RSA is the area that surrounds and includes the LSA, and was established to assess the potential, largely indirect effects of the Project, as well as other activities, in a regional context. The RSA is large enough to capture the extent of potential effects (i.e., zone of influence) on a VC and defines the area within which cumulative effects may occur (i.e., cumulative effects assessment boundary). The RSA for the Surface Water Quality VC is bounded by the regional watershed area in which the Project Area is located. The RSA for this assessment is based on the whole watershed within which the Project is located and extends downstream to include Russell Lake (refer to draft EIS Figure 8.2-3). Given the very low magnitude of predicted changes in water quantity in the LSA (in the draft EIS, conservative estimate of water taking would result in a reduction of flow of about 3% at times of low flow and the lake level could change by 1cm), it would not be measurable further downstream into the RSA.</p> <p>The CEA considers whether residual adverse effects of the Project on a given VC will overlap spatially and/or temporally with the same residual adverse effects on the VC resulting from other past, present, and reasonably foreseeable projects or activities. The CEA follows standard methodology as per provincial (e.g., Guidelines for an Environmental Assessment) and federal guidance (e.g., Assessing Cumulative Environmental Effects under the Canadian Environmental Assessment Act, 2012).</p> <p>Cumulative effects assessment is important to Indigenous communities in general because incremental effects to the environment can weaken resource economies, affect important resources such as plants, fish, and wildlife, affect rights-based and cultural activities, and affect both the health of wildlife and humans. Indigenous perspectives can be complementary to the CEA for the Project, and Denison acknowledges the important relationship of the Indigenous Communities of Interest to the lands and waters. The Indigenous Communities of Interest of ERFN and the Kineepik Métis Local #9 at</p>

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			<p>expected to remain localized...for all the mining operations in the region. Impacts on water quality and</p> <p>mitigation measures "not warranted" should be demonstrated through field studies and</p> <p>research rather than relying on a theoretical modelling approach.</p>	<p>Pinehouse (KML) have shared their Indigenous Knowledge on past, present, and predicted cumulative effects through the following:</p> <ul style="list-style-type: none"> <li>• Wheeler River Project – Summary of Health and Socio-Economic Study Results (ERFN and SVS 2022a);</li> <li>• Wheeler River Project - Summary of Traditional Knowledge Study Results (ERFN and SVS 2022b);</li> <li>• Kineepik Valued Ecosystem Components – KML Pre-statement for Denison EIS (KML and NVP 2022); and</li> <li>• Response to the Environment Impact Assessment For the proposed Ministry of Highways 914 Extension Project (KML and Limnos Environmental 2022).</li> </ul> <p>These perspectives on cumulative effects have been summarized in Section 3.4.8 of Section 3. Denison and the Communities of Interest agreed on the high value of this contribution being part of the EIS.</p>
395	YNLR (March 4, 2023)	Section 8.0 Aquatic Environment, p. 8-92, 8-93 and 8-96	<p>Comment #40, Appendix A: There are several comments in the EIS that recognize the potential for a negative effect on water quality from the site water management system into Whitefish Lake. Statements taken from residents have identified concerns about the release of elements such as "mercury" because of the mining activity. While the report recognized that detectable concentrations of mercury will not be produced, the local comment should be considered as a proxy for a variety of contaminants such as selenium, arsenic, cobalt, zinc, etc., as well as the concern expressed by residents, rather than being taken literally as mercury as the only contaminant of concern.</p> <p>YNLR reiterates that concerns about water quality are warranted given that the EIS indicates that there will be a continuous (year-round) average discharge of water from the mine site of more than 36,000 litres/hour for the entire life of the Project. This discharge will be especially evident during low flow periods.</p>	<p>The comment from YNLR references text in Section 8.2 of the draft EIS which is the water quality assessment. Please refer to draft EIS Section 8.1 for the water quantity assessment and information on potential changes in water flow.</p> <p>Denison acknowledges the concern raised by YNLR and believes the water quality assessment, including the assessment of potential water quality effects on ecological and human health, presented in the EIS and supporting documentation is robust and supports the conclusions drawn. With regard to YNLR's concerns around contaminants in treated effluent, we refer YNLR to Appendix 10-A Environmental Risk Assessment (ERA) for Wheeler River. The ERA predicts and assesses the risk to representative human and ecological receptors resulting from exposure to radiological and non-radiological substances expected to be released throughout the Project Phases. The ERA encompasses a human health risk assessment (HHRA) and an ecological risk assessment (EcoRA), which have been prepared to be compliant with Canadian Standards Association Group (CSA) N288.6-12 Environmental Risk Assessments for Class I Nuclear Facilities and Uranium Mines and Mills (CSA, 2012). It also meets the requirements for an ERA outlined in Section 4.1 of Regulatory Document 2.9.1, Environmental Principles, Assessments and Protection Measures (CNSC, 2020). The ERA has been developed with current science and current regulatory attitudes in mind. The predicted radiological and non-radiological to human and ecological receptors demonstrate that the</p>



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				Project can be conducted in a manner that is protective of human and ecological health.
396	YNLR (March 4, 2023)	Section 8.0 Aquatic Environment, p. 8-102	Comment #43, Appendix A: While appreciating current water quality standards, YNLR suggests that monitoring programs be designed to more than meet regulatory requirements of the license conditions. The EIS recognizes that the Project area lies primarily within an undisturbed area of the boreal forest (aside from the extent of seismic activity carried out within this area). YNLR would like to be involved in specific follow-up and monitoring plans as identified in the EIS.	<p>As noted in the draft EIS, Section 8.2.9 "Specific follow-up and monitoring plans will be prepared to refine and finalize approach in consultation with Indigenous groups, other interested parties, and relevant federal and provincial agencies with interest in the development and implementation of this VC specific program." The monitoring and follow-up program will include measurement of water quality parameters to meet regulatory criteria (i.e., provincial discharge permits, Metal and Diamond Mining Effluent Regulations [MDMER; Government of Canada 2022] and CSA N288.4-19 (CSA Group 2019). At a minimum, this will include collection of non-radiological parameters (e.g., metals, nutrients, hardness, temperature, pH, TDS, TSS, and sulphate) and radiological parameters.</p> <p>Denison has committed to collaborating with Indigenous Communities of Interest with reserves and residential communities most proximal to the Project on specifics of environmental monitoring regimes, suited to each of their interests and needs. As part of these programs, Denison and the Communities of Interest will be sharing information in an agreed-upon fashion. YNLR will be informed throughout the monitoring program design and implementation process. Monitoring program design and implementation will be guided by the following principles: programs will confirm the effectiveness of mitigation measures and predictions made in the assessment, programs will be implemented in an adaptive management framework (if/where applicable) to reduce effects during the lifetime of the Project, and programs will have spatial boundaries that are sufficiently extensive to measure EIS predictions.</p> <p>Additionally, regulators will be involved with setting specific requirements for follow-up and monitoring, as well as reporting, through licence conditions (CNSC) and provincial approvals. A number of monitoring and reporting requirements will be generated through the completion of the environmental assessment process. Denison and its lifecycle regulators will be in regular communication throughout the life of the Project as part of routine reporting, site inspections, licence and permit renewals. Denison is committed to ongoing engagement with regulators and recognizes that this will include information sharing related to follow-up and monitoring results and any needed adaptive management plans. It is also noted for further reference</p>





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				that there are existing, non-Denison monitoring programs such as the CNSC's Independent Environmental Monitoring Program ( <a href="https://nuclearsafety.gc.ca/eng/resources/maps-of-nuclear-facilities/iemp/index.cfm">https://nuclearsafety.gc.ca/eng/resources/maps-of-nuclear-facilities/iemp/index.cfm</a> ), and the Eastern Athabasca Regional Monitoring Program ( <a href="http://www.earmp.ca/">www.earmp.ca/</a> ). Results from these programs provide relevant information and can complement Denison's Project-specific monitoring program. One forum for discussion of monitoring results is the Northern Saskatchewan Environmental Quality Committee ( <a href="https://www.saskatchewan.ca/residents/first-nations-citizens/saskatchewan-first-nationsmetis-and-northern-initiatives/northern-saskatchewan-environmental-quality-committee">https://www.saskatchewan.ca/residents/first-nations-citizens/saskatchewan-first-nationsmetis-and-northern-initiatives/northern-saskatchewan-environmental-quality-committee</a> ).
397	YNLR (March 4, 2023)	Section 8.0 Aquatic Environment Fish and Fish habitat, p. 8-117, 8-140, 8-141, 8-153, 8-252 and 11-50	<p>Comment #44, 45, 46, 49, 52 and 84, Appendix A: It is noted that the aquatic survey and fish sampling were carried out in 2016, which is now somewhat dated.</p> <p>It is also noted that work that would affect fish and fish habitat could/should only be carried out between July 16 and September 30th, as both spring and fall spawning species were collected in the fish sample.</p> <p>YNLR acknowledges that the amount of fish habitat directly affected by the Project is small. However, a much bigger concern is the indirect effects of increased human activity in the area over several decades and beyond, particularly with respect to the consequent increase in fish harvest. This will directly affect the ability of Indigenous Peoples to exercise their Aboriginal and Treaty rights.</p> <p>Related comments:</p> <ul style="list-style-type: none"> <li>YNLR would be eager to see how "a fish salvage plan to relocate fish prior to in-water works" might be carried out? Such an approach may not be practicable or effective.</li> <li>While the sentiment of the above fish management strategy is laudable, it is not practical in terms of preserving fish numbers given the increased human access to the lakes that the mining activity will create.</li> <li>The EIS does recognize the value of sucker species to residents, which is a positive step, as these fish species are</li> </ul>	<p>The response to the review comment are organized by theme, consistent with the comment.</p> <p><u>Fish salvage</u>: Details of a fish salvage program, if required, will be developed to support Project permitting and licensing. Briefly, for any in-water work, the work area would be isolated from rest of the waterbody. Any fish remaining inside the isolated work area would be captured and relocated outside of the work area. Based on the experience of Denison and its SME team it is noted that such programs are implemented successfully on a routine basis with effective and site-specific planning.</p> <p><u>Indirect effects related to increased human activity in the area</u>: Please note that the Project will not change public access to the area. The existing gate on Highway 914 near Cameco's Key Lake Operation will remain in place and no changes to the gate and the process for controlling access to Highway 914 north of the Key Lake Operation are proposed as part of the Wheeler River Project. The proposed operation is fly-in, so Project related traffic to the area would only be related to deliveries of materials to and from the site. On-site staff will not have access to personal (or company) vehicles and will largely be "confined" to the camp and work areas during their shifts. Section 11 of the draft EIS provides the assessment of potential Project effects on Indigenous Land and Resource Use (Section 11.1) and Other Land and Resource Use (Section 11.2). The mitigation measures proposed in the aquatic and terrestrial assessments translated into undetectable changes in resource availability to existing and future users and rightsholders.</p> <p><u>Recreational fishing</u>: As described in the draft EIS and as noted above, workforce members will be transported to/from site via a fly-in/fly-out</p>

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			<p>netted for a variety of purposes. Increased local traffic will also undoubtedly provide more access for both subsistence and recreational fishing. As part of the mitigation measures YNLR proposes working with authorities to regulate recreational fishing prior to the onset of the construction phase of the Project and revisiting these regulations at intervals throughout the mine's operation and decommissioning.</p> <ul style="list-style-type: none"> <li>• YNLR disagrees with the assumptions used (Section 8.3.7.2 to 8.3.7.5), which "assume" specific monitoring and follow-up for Fish and Fish Habitat related to cumulative effects is not warranted.</li> <li>• YNLR would like to be involved in designing and carrying out of a monitoring program, which would test the "no cumulative effect" assumption.</li> <li>• YNLR would like to be involved in a monitoring program for fish health. Further, this monitoring program should continue for the life of the Project or until it is demonstrated that the current filtering programs are effective.</li> </ul>	<p>rotation and will, therefore, not use ground travel options during shift changes, which will eliminate fishing on local lakes during commutes to/from the site and during time off work. Denison site vehicles will not be available for recreational purposes. While at the Project site and off duty, workers may opt to fish local waterbodies. To protect sustainable use of resources, only catch and release of fish will be encouraged, and fish storage or cooking facilities will not be provided. To prevent entry of land users from entering the Project Area, Denison will control access to the property with both a north and south security gate. Overall, given a lack of resources to access fishing locations and store fish harvests, workforce fishing is expected to cause minimal disturbances to local users.</p> <p><u>Monitoring:</u> In the draft EIS, Denison outlines its plans to conduct fish health monitoring in tandem with surface water quality, sediment quality, benthic invertebrate and fish and fish habitat sampling. Sampling locations will be co-located to facilitate comparison to water quality and sediment quality characteristics. Denison has committed to collaborating with Indigenous Communities of Interest with reserves and residential communities most proximal to the Project on specifics of environmental monitoring regimes, suited to each of their interests and needs. As part of these programs, Denison and the Communities of Interest will be sharing information in an agreed-upon fashion. YNLR will be informed throughout the monitoring program design and implementation process. Monitoring program design and implementation will be guided by the following principles: programs will meet regulatory requirements, programs will confirm the effectiveness of mitigation measures and predictions made in the assessment, programs will be implemented in an adaptive management framework (if/where applicable) to reduce effects during the lifetime of the Project, and programs will have spatial boundaries are sufficiently extensive to measure EIS predictions. Denison is committed to maintaining positive relations with all local interested parties and will be open to discussions on any issues or concerns that arise.</p>
398	YNLR (March 4, 2023)	Section 8.0 Aquatic Environment, p. 8-151	Comment #47, Appendix A: The statement on page 8-151 recognizes that the discharge of treated effluent during the Operation and Decommissioning phase may interact with Cameco's current releases contributing to cumulative effects.	The requested information is presented in draft EIS Section 8.2.7 Cumulative Effects (surface water quality). The summary referenced in the YNLR comment is made in Section 8.3 Fish and Fish Habitat. Specific monitoring and follow-up plans for the Surface Water Quality VC will be prepared to refine and finalize the approach and specific metrics following consultation

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			It is recommended that a study be undertaken to assess the basin effect of water discharges.	with Indigenous groups, other interested parties, and relevant federal and provincial agencies with interest in the development and implementation of this VC-specific program.
399	YNLR (March 4, 2023)	Section 8.0 Aquatic Environment, p. 8-152	<p>Comment #48, Appendix A: Sediment quality of Whitefish Lake and downstream is not "anticipated" to overlap with the Key Lake Operation.</p> <p>It would be prudent to test this hypothesis to ensure that water quality in the flowage is maintained given the high value placed on these waters by residents.</p>	Any changes in sediment quality would be preceded by changes in surface water quality. Should the surface water quality monitoring program identify changes beyond those predicted in the EIS, adaptive management measures would be implemented and may include monitoring of sediment quality further downstream in the watershed. In addition, the Environmental Effects Monitoring (EEM) program under the Diamond Mining and Effluent Regulations will provide a framework for monitoring changes in the aquatic environment.
400	YNLR (March 4, 2023)	Section 8.0 Aquatic Environment, p. 8-232	<p>Comment #51, Appendix A: Water management during construction indicates that there is to be no planned discharge to Whitefish Lake.</p> <p>If a release of water from the mine site becomes necessary, in addition to monitoring suspended solid levels, there should be a communication plan to inform area residents of the pending release and its duration.</p>	<p>During Construction, no effluent is expected to be released to the aquatic environment. Contact water stored in the Clean Waste Rock Pond during Construction will be held onsite until the Industrial Wastewater Treatment Plant (IWWTP) is commissioned. At that time the water from the pond would be conveyed to the IWWTP, treated, and released to Whitefish Lake per permit / license requirements. The sequencing of Construction activities will occur in a logical manner based on Project execution plans. For example, construction of the wellfield runoff pond will be prioritized during the early part of Construction, and it will be able to hold 38,200 m3 of water. This will provide contingency and additional water storage capacity if contact water produced exceeds estimates or the volume available in the Clean Waste Rock Pond. Other secondary contingency measures are also available should the volume of water requiring management exceed site infrastructure storage volume. Depending on the situation and volume of water needing management, this could include for example use a hydrovac for offsite disposal. Alternatively, in the instance that there is a planned release of water during construction, this would be permitted by Saskatchewan Ministry of Environment.</p> <p>In accordance with our Indigenous Peoples Policy, Denison is committed to collaborating with Indigenous peoples and communities to build long-term, respectful, trusting, and mutually beneficial relationships. Denison has identified key objectives respecting Indigenous engagement associated with the Project:</p> <ul style="list-style-type: none"> <li>• Build and maintain authentic relationships based on a foundation of trust, good faith, and transparency.</li> </ul>



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				<ul style="list-style-type: none"> <li>Create a respectful dialogue process that promotes communication and collaboration among Denison and Indigenous communities, in a timely and accurate fashion.</li> <li>Understand how the proposed development of the Project may affect the interests of Indigenous peoples (including Indigenous and/or Treaty Rights), and work with Indigenous peoples to avoid, mitigate, or otherwise address effects, while also collaborating to maximize potential positive effects.</li> </ul> <p>In addition, Denison is required to have a Public Information Disclosure Protocol as set out by the CNSC. This would include any notification to the wider public of unplanned discharges.</p>
401	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment Fig 9. 2-6, p. 9-83	<p>Comment #53, Appendix A: YNLR is concerned about the potential residual and cumulative effects of the extensive seismic network on the soils of the RSA and LSA.</p> <p>Were these and other potential network effects considered in the analyses?</p>	Denison notes that there are a number of review comments that have a similar theme. Rather than repeating the same narrative in this table Denison has developed an inclusive technical memo to provide a more coherent and complete response. Accordingly, please refer to the attached memo RE: Wheeler River Project Environmental Impact Statement - Denison's Response to Woodland Caribou Habitat Comments.
402	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment Appendix 9B, p. 60 Also, p. 9-68, Fig 9. 2-9, 9-133, 9-139 and 9-149	<p>Comment #54 and 55, Appendix A: Appendix 9B of the EIS states that 100% of the LSA and 82% of the RSA are already disturbed by buffered anthropogenic disturbances in the form of exploration lines, exploration trails, and seasonal roads. During the consultation process, residents raised the issue of the high degree of human disturbance and highlighted concerns about the broad network of linear disruptions in numerous places across the EIS.</p> <p>As with the Project soils, YNLR is concerned about the potential residual and cumulative effects of the extensive seismic network on the vegetation and wetlands of the RSA and LSA, particularly from edge effects. Were these and other possible effects of the network considered? If so, how were they included?</p>	Denison notes that there are a number of review comments that have a similar theme. Rather than repeating the same narrative in this table Denison has developed an inclusive technical memo to provide a more coherent and complete response. Accordingly, please refer to the attached memo RE: Wheeler River Project Environmental Impact Statement - Denison's Response to Woodland Caribou Habitat Comments.
403	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment, p. 9-168	Comment #56, Appendix A: Wilson et al. (2018) recently summarized the home ranges of 25 woodland caribou populations in Canada. The average home range varied 28-fold, from 312 to 8,838 sq. km.	Denison notes that there are a number of review comments that have a similar theme. Rather than repeating the same narrative in this table Denison has developed an inclusive technical memo to provide a more coherent and complete response. Accordingly, please refer to the attached memo RE:

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			The RSA delineated for assessing cumulative effects on caribou (40,174 ha ~ 402 sq.km.) is thus inadequate for this purpose, and the conclusions of project residual and cumulative effects non-significance are highly suspect. The same could be said for other wide-ranging species such as wolverine.	Wheeler River Project Environmental Impact Statement - Denison's Response to Woodland Caribou Habitat Comments.
404	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment Fig 9. 2-9	Comment #57, Appendix A: Was the current RSA anthropogenic disturbance estimate (599 ha) inclusive of the many kilometres of existing seismic cut lines? Did the estimate include consideration of the compounding 'edge effects' from these linear disturbances? If not, why not? See previous comments on the very high level of existing human disturbance in the LSA and RSA highlighted in Appendix 9B.	Denison notes that there are a number of review comments that have a similar theme. Rather than repeating the same narrative in this table Denison has developed an inclusive technical memo to provide a more coherent and complete response. Accordingly, please refer to the attached memo RE: Wheeler River Project Environmental Impact Statement - Denison's Response to Woodland Caribou Habitat Comments.
405	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment, p. 9- 239	Comment #58, Appendix A: Again, the direct and indirect effects of the existing seismic disturbance seem not to have been considered in this assessment, particularly because wolverines 'avoid linear infrastructure.' In fact, one can also see that woodland caribou avoid areas of historic seismic disturbance by directly comparing the figures on page 9-139, EIS (vegetation) and 9-202, EIS (caribou sightings). Appendix 9B gives a summary of the impacts of linear disturbances on boreal forest wildlife.	Denison notes that there are a number of review comments that have a similar theme. Rather than repeating the same narrative in this table Denison has developed an inclusive technical memo to provide a more coherent and complete response. Accordingly, please refer to the attached memo RE: Wheeler River Project Environmental Impact Statement - Denison's Response to Woodland Caribou Habitat Comments.
406	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment, 9. P- 239	Comment #59, Appendix A: Buffered disturbance is included in Appendix 9B but appears to have been ignored in the effects assessment.  Was the 500m buffering of anthropogenic disturbances also applied to the network of seismic cut lines to account for edge effects? If not, why not?	Denison notes that there are a number of review comments that have a similar theme. Rather than repeating the same narrative in this table Denison has developed an inclusive technical memo to provide a more coherent and complete response. Accordingly, please refer to the attached memo RE: Wheeler River Project Environmental Impact Statement - Denison's Response to Woodland Caribou Habitat Comments.
407	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment Table 9.3-23 and p. 9-270	Comment #60, Appendix A: Is the amount of initial 'available woodland caribou habitat' inclusive of the direct and indirect seismic cutline network effects? If not, why not? Irrespective of this, it appears that the LSA is being written off for woodland caribou for decades to come. See above comments with respect to Appendix 9B.	Denison notes that there are a number of review comments that have a similar theme. Rather than repeating the same narrative in this table Denison has developed an inclusive technical memo to provide a more coherent and complete response. Accordingly, please refer to the attached memo RE: Wheeler River Project Environmental Impact Statement - Denison's Response to Woodland Caribou Habitat Comments.
408	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment,	Comment #61, 62, 82, 83, Appendix A: The EIS correctly highlights the cultural importance of moose and woodland caribou to Indigenous People, which underscores YNLR's	Denison notes that there are a number of review comments that have a similar theme. Rather than repeating the same narrative in this table Denison has developed an inclusive technical memo to provide a more coherent and

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		p. 9- 275, 9-280, 9-300, Section 11.0 Land and Resource Use, p. 11- 46 and 11-	<p>concerns regarding the conclusions of the residual and cumulative effects assessments of these species, particularly for caribou.</p> <p>YNLR questions the optimistic conclusions drawn by Denison regarding the ongoing availability of woodland caribou for traditional use.</p> <ul style="list-style-type: none"> <li>The buffered direct habitat loss alone eliminates the LSA and RSA for caribou habitation for decades to come (Appendix 9B), so how can it 'sustain the regional woodland caribou population' in any way?</li> <li>The reference to 'proven' mitigation measures is rather vague and requires further explanation.</li> <li>YNLR is unaware of these proven mitigation measures, other than isolation from human disturbance.</li> <li>YNLR disagrees with this overall residual effects conclusion for these wildlife VCs, especially in regard to woodland caribou (Appendix 9B), for the following reasons:</li> </ul> <p>(i) Comment #64, Appendix A: In addition, the reason why SK1 holds one of the very few sustainable caribou populations despite a high level of forest fire, is because of currently very low levels of human intrusion, which suggests that the provincial and federal approval processes, BMPs, and mitigation measures have not been sufficient in the rest of the species' range throughout the entirety of Canada.</p> <p>(ii) Comment #83, Appendix A: Woodland caribou populations have strongly declined across Canada despite all types of project mitigation, so YNLR doubts that similar mitigation efforts will be effective here. A woodland caribou 'management' plan is not sufficient. YNLR believes that, at a minimum, Denison should commit to an aggressive caribou habitat offset plan before work on the Project begins. In addition, it is unclear what constitutes this proposed mitigation. A caribou management plan is proposed (Section 9), however nothing short of a full caribou habitat offset plan will suffice to sustain the region's population. Offset activities should include the ongoing restoration of the existing seismic lines, among</p>	<p>complete response. Accordingly, please refer to the attached memo RE: Wheeler River Project Environmental Impact Statement - Denison's Response to Woodland Caribou Habitat Comments.</p>



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			other things. This work is best accomplished in consultation and collaboration with Indigenous People, their communities, and organizations.	
409	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment, p. 9- 280, 9-287 and 9-302	<p>Comment #62, 63, 64, 66, 67 and 68, Appendix A: Past and future direct and indirect effects of seismic line clearing appear to have been ignored in this assessment (Appendix 9B). The fact that most caribou sightings occurred away from seismically disturbed areas independent of habitat type supports this observation.</p> <p>YNLR disagrees with this overall residual effects conclusion for these wildlife VCs, especially in regard to woodland caribou (Appendix 9B), for the following reasons:</p> <ul style="list-style-type: none"> <li>• Comment # 63 and 64, Appendix A: The extent of past seismic line cutting is very high for both the LSA and RSA. However, direct and indirect (edge) effects on wildlife, especially woodland caribou, seem to have been overlooked or minimized. Future exploration disturbance should have been estimated and included based on the rate of historic disturbance if nothing else.</li> <li>• Comment #67, Appendix A: Most of these mitigation measures (listed on p. 9-308) are quite superficial and would contribute little to the long-term conservation of wildlife in the RSA and LSA. The proposed caribou management plan needs to be a fully developed Caribou Habitat Offset Plan given the extent of already altered habitat by seismic activities. Also note that this has a high potential for a direct impact on Aboriginal and Treaty rights. More, some Indigenous People will likely take offence at the idea of the company 'facilitating access' to their inherent Treaty Rights. Significant consultation and collaboration with Indigenous People is required.</li> <li>• Comment #69, Appendix A: Concern about the extensive network of seismic cut lines were also raised by Indigenous People at several places in the EIS.</li> </ul>	Denison notes that there are a number of review comments that have a similar theme. Rather than repeating the same narrative in this table Denison has developed an inclusive technical memo to provide a more coherent and complete response. Accordingly, please refer to the attached memo RE: Wheeler River Project Environmental Impact Statement - Denison's Response to Woodland Caribou Habitat Comments.

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410	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment	<p>Comment #65, Appendix A: Is it not possible to conduct modern mineral exploration without cutting miles and miles of seismic lines across the boreal forest?</p> <p>Denison, as a progressive company, will consider advances in technology</p>	Denison notes that there are a number of review comments that have a similar theme. Rather than repeating the same narrative in this table Denison has developed an inclusive technical memo to provide a more coherent and complete response. Accordingly, please refer to the attached memo RE: Wheeler River Project Environmental Impact Statement - Denison's Response to Woodland Caribou Habitat Comments.
411	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment	<p>Comment #68, Appendix A: Section 9.3.9 of the draft EIS indicates that with the implementation of the above (and additional) mitigation measures, the residual effects on the Ungulates, Furbearer, and Woodland Caribou VCs were assessed as follows:</p> <ul style="list-style-type: none"> <li>• Moose. Not significant: the residual effects of alteration and/or loss of available habitat and of change in mortality are not expected to result in a change that will alter habitat integrity to the point where it would not be able to sustain the regional ungulate populations or the integrity of the regional moose population to the point where it could not be sustained.</li> <li>• Furbearers. Not significant: the residual effects of alteration and/or loss of available habitat and of change in mortality are not expected to result in a change that will alter habitat integrity to the point where it would not be able to sustain the regional furbearer populations or the integrity of the regional furbearer populations to the point where they could not be sustained.</li> <li>• Woodland caribou. Not significant: the residual effects of alteration and/or loss of available habitat and of change in mortality are not expected to result in a change that will alter habitat integrity to the point where it would not be able to sustain the regional woodland caribou population or the integrity of the regional woodland caribou population to the point where they could not be sustained.</li> </ul> <p>YNLR believes this summary to be overly optimistic and somewhat inaccurate for the following reasons:</p>	Denison notes that there are a number of review comments that have a similar theme. Rather than repeating the same narrative in this table Denison has developed an inclusive technical memo to provide a more coherent and complete response. Accordingly, please refer to the attached memo RE: Wheeler River Project Environmental Impact Statement - Denison's Response to Woodland Caribou Habitat Comments.

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			<ul style="list-style-type: none"> <li>The RSA and LSA are too small relative to the home range of woodland caribou to serve as a basis for assessing residual and cumulative effects on the species.</li> <li>Large portions of the RSA and LSA have been badly degraded by mineral exploration activities (particularly by line-cutting for seismic surveys; Appendix 9B), yet their direct and indirect (edge) impacts seem not to have been considered in the effects assessments. This is puzzling given the known impact that these features have on wildlife, especially caribou, wolverine, other predators, and many avian species. The EIS maps themselves clearly show an avoidance of these seismically-disturbed areas by woodland caribou.</li> </ul> <p>YNLR strongly believes that, at a minimum, an aggressive Caribou Habitat Offset Plan should be co-developed before Project work begins, and regular monitoring of the caribou population be conducted throughout the life of the Project.</p>	
412	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment, p. 9-320, 9-384, 9-389, 9-408, 9-413, 9-414, 9-454, 9-457, 9-460, 9-465, 9-469 Section 11.0 Land and Resource Use	<p>Comment #69, Appendix A: in Section 9.4 of the EIS lists Raptors, Migratory Breeding Birds and Bird Species at Risk together (p. 9-320).</p> <p>YNLR questions how and why these three avian VCs were selected and grouped.</p> <p>The three VCs include dozens of breeding bird species with hugely varying habitat requirements, so it is difficult to see how it is possible to accurately predict Project effects for many of these species, especially when so many are lumped together in only one Migratory Breeding Birds VC. In addition, the scarcity of raptors and avian species at risk makes them poor candidates for effects assessments because of low sample sizes.</p> <p>Comment #72 and 73, Appendix A: With only two water-based species selected to represent all forest raptors in the Project area, the results and conclusions of this assessment are extremely limited. For the forest birds in particular, this is compounded by the non-inclusion of the historic network of</p>	An EIS requires scoping in order to determine the appropriate content for the assessment and focus the EIS on key areas of concern and relevance. As per standard, accepted EA practice, the EA was organized by and focused on VCs. The VCs are aspects of the biophysical and human environments that will likely be affected (adversely or positively) by the Project. The VCs reflect identified scientific, local knowledge and Indigenous knowledge, and community interests regarding the Project and its potential effects and are typically identified early in the EA process as a result of questions and concerns raised through engagement with government departments and agencies, Indigenous and community groups, and the general public. Key Indicators are an important component or aspect of the VC that is expected to be affected (changed) as a result of the Project. The KIs may comprise subsets or a guild of the VC, certain aspects of the VC that may be affected by the Project and/or which have a particular importance. The three avian VCs (with Key Indicators in brackets) were: Raptors (bald eagle and osprey), Migratory Breeding Birds (waterbirds and waterfowl, upland game birds, and migratory songbirds), and Bird Species at Risk (common nighthawk, short-eared owl, yellow rail, rusty blackbird, and olive-sided flycatcher). The residual effects evaluation was completed on the Key Indicator species. The



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			<p>seismic cut lines across the landscape (Appendix 9B), and the resulting underestimation of direct and edge effects.</p> <p>Comment #74, Appendix A: Species at risk generally make very poor indicators of ecological integrity/biodiversity because of their relative scarcity. In fact, three of the VC bird species at risk selected were not even detected during the Project surveys. This very low quantity and data quality greatly weakens any conclusions regarding the Project residual effects.</p> <p>Comment # 75, Appendix A: YNLR cannot find any mention of the extensive seismic line network impacts (Appendix 9B) included in the effects assessment for birds. This was also the case for the caribou and wildlife assessments.</p> <p>Comment #76 and 77: Appendix A: The selection of weak indicators and the ad hoc grouping of dissimilar species make these predictions quite unreliable. This potential error is likely compounded by the apparent exclusion of the direct and indirect effects of the existing seismic cutline network (Appendix 9B). Concern about these extensive network of seismic cut lines were also raised by Indigenous People at several places in the EIS.</p>	<p>rationale for selecting these avian Key Indicators is available in Section 9.4.1.2. For instance, the inclusion of Species At Risk birds is a requirement of the Species at Risk Act and the CNSC's REGDOC 2.9.1 also notes that applicants should identify all biological species at risk in the area; the avian Species at Risk were not included in the EIS to be indicators of ecological integrity/biodiversity.</p> <p>The avian effects assessment was habitat based. The assessment methods used a conservative approach with the assumption that, following the implementation of site-specific mitigation measures, the proposed Project activities would have a residual effect on these species' guilds regardless of species presence on site. As described in the EIS, pre-construction surveys will be conducted prior to the commencement of any vegetation clearing or soil disturbance. Avian species will also be routinely monitored throughout the life of the Project. Results from the surveys and monitoring activities are expected to inform the adaptive management process to update Project design and identify the need for additional mitigation measures, if required. Denison is of the professional opinion that the data presented, and analysis provided in the avian assessment of the draft EIS is sufficient given 1) the local / regional environment, 2) the level of interaction of the Project with birds that is expected, and 3) because bird densities are not expected to be limited by habitat regionally.</p> <p>Please also refer to the attached memo RE: Wheeler River Project Environmental Impact Statement - Denison's Response to Woodland Caribou Habitat Comments for a discussion of how existing cutlines were considered in avian assessments. All past anthropogenic disturbances (which includes cutlines to support mineral exploration) were considered in the terrestrial environment assessments. These human disturbances were mapped and considered/addressed appropriately in Section 9 including the Existing Environment, Residual Effects Characterization, and Cumulative Effects Assessment sections, as they relate to Terrain, Soil and Organic Matter/Peat (Section 9.1); Vegetation and Ecosystems, Listed Plant Species and Wetlands (Section 9.2); Ungulates, Furbearers and Woodland Caribou (Section 9.3); Raptors, Migratory Breeding Birds, and Bird Species at Risk (Section 9.4). The cutlines were classified as previously disturbed and considered as low-quality habitat or no habitat, depending on the species being assessed and their habitat requirements. An anthropogenic layer is included on draft EIS, Figure</p>

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				9.2-6, which includes geophysical cutlines. Please note that anthropogenic features were mapped at IKONOS 1:5,000. This anthropogenic layer is not listed under available habitat types for any of the wildlife or avian VCs in subsequent assessments (e.g., Figures 9.3-9 to 9.3-14, Figures 9.4-8 to 9.4-11, Figures 9.4-13 to 9.4-15) except for Common Nighthawk (Figure 9.4-12), which is a species that is known to use anthropogenic features.
413	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment, p. 9- 356 and 9-357	<p>Comment #71, Appendix A: The EIS states: "In this assessment, alteration of habitat is defined as indirect habitat alteration where suitable habitat for the Raptors, Migratory Breeding Birds, and Bird Species at Risk VCs and their associated KIs remains physically intact but is rendered less suitable or unsuitable for their use. Sources of habitat alteration include Project-related habitat fragmentation (i.e., the breaking apart of continuous habitat into smaller, spatially distinct patches), edge effects (i.e., the influence of recently cleared areas on adjacent habitats), and sensory disturbance." (Page 9-356, EIS)</p> <p>"A minimum patch size is often required to fulfill all required life requisites (Robbins et al. 1989, Askins 1994, Vance et al. 2003, Butcher et al. 2010). When available suitable habitat is below a minimum patch size threshold, individual birds may get displaced despite the continued presence of suitable habitat. As a result, patch size at the individual and population level may have a species-specific effect on habitat use and could affect reproductive success, health, and survival (Askins 1994, Villard et al. 1999, Vance et al. 2003, Suorsa et al. 2004, Butcher et al. 2010)." (Page 9-357, EIS)</p> <p>"Edge effects include the influence of recently cleared areas on adjacent intact habitats. Gradients of light intensity, temperature, wind, relative humidity, as well as snow accumulation and melt may occur along the border between cleared areas and intact habitats (Bannerman 1998, Kremsater and Bunnell 1999), which could alter habitat suitability for avian use. Bannerman (1998) suggested that the richness and density of generalist bird species may increase along forest edges based on the variety of vegetation and abundance of food (e.g., American Crow and Blue Jay. However, numbers of habitat</p>	<p>Please refer to the attached memo RE: Wheeler River Project Environmental Impact Statement - Denison's Response to Woodland Caribou Habitat Comments for a discussion of how existing cutlines were considered in avian assessments. All past anthropogenic disturbances (which includes cutlines to support mineral exploration) were considered in the terrestrial environment assessments. These human disturbances were mapped and considered/addressed appropriately in Section 9 including the Existing Environment, Residual Effects Characterization, and Cumulative Effects Assessment sections, as they relate to Terrain, Soil and Organic Matter/Peat (Section 9.1); Vegetation and Ecosystems, Listed Plant Species and Wetlands (Section 9.2); Ungulates, Furbearers and Woodland Caribou (Section 9.3); Raptors, Migratory Breeding Birds, and Bird Species at Risk (Section 9.4). The cutlines were classified as previously disturbed and considered as low-quality habitat or no habitat, depending on the species being assessed and their habitat requirements. An anthropogenic layer is included on draft EIS, Figure 9.2-6, which includes geophysical cutlines. Please note that anthropogenic features were mapped at IKONOS 1:5,000. This anthropogenic layer is not listed under available habitat types for any of the wildlife or avian VCs in subsequent assessments (e.g., Figures 9.3-9 to 9.3-14, Figures 9.4-8 to 9.4-11, Figures 9.4-13 to 9.4-15) except for Common Nighthawk (Figure 9.4-12), which is a species that is known to use anthropogenic features.</p>

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			<p>specialist species (e.g., Red-breasted Nuthatch and Pileated Woodpecker may decrease near edges because they use edge habitats less frequently or avoid them (George and Dobkin 2002). The potential influx of individuals into edge habitats, or the potential displacement of individuals into other areas, may increase crowding and subsequent inter-and intra-specific competition for breeding habitat, food, and other resources (Hagan et al. 1996, Schmiegelow et al. 1997, Bannerman 1998, George and Dobkin 2002, Calizza et al. 2017).” (Page 9-357, EIS)</p> <p>The above descriptions summarize the potential effects of the Project on breeding bird habitats. When wooded landscapes are subjected to widespread seismic activity, the same effects occur: continuous parcels of forest are divided by miles of cut lines, resulting in smaller habitat patches and greater habitat edge. As a result, bird species that prefer contiguous habitats are declining, while birds that prefer habitat edges are increasing.</p> <p>How will the EIS address already existing direct and indirect impacts of these historic seismic linear disturbances across the LSA and RSA (Appendix 9B) that were ignored.</p>	
414	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment	Comment #78, Appendix A: Why were amphibians excluded as a VC/KI? Bats? Both were surveyed (Appendix 9B).	Subsequent to filing the draft EIS, Denison has developed a new Species at Risk appendix to Section 9 which will be included in the final EIS and has been included in the response to YNLR (a new SAR appendix (new Appendix 9-D) will be added to Section 9 of the final EIS. It has been included here as Attachment IR-131). This new EIS appendix lists all SAR species potentially occurring in the Project study areas, with links to applicable and appropriate mitigation measures described in the draft EIS. The new appendix also includes a summary of the life history requirements, the expected Project effects, proposed mitigation measures, and anticipated residual effects on bats and amphibians.
415	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment, p. 9-474	Comment #79, Appendix A: Project monitoring programs specific to Raptors, Migratory Breeding Bird, and Bird Species at Risk VCs are critical, particularly the ongoing repeated surveys throughout the life of the Project, especially given the weak	The framework for avian-related monitoring programs are available in Section 9.4.8 of the draft EIS. This includes a discussion of the anticipated adaptive management process. As described in the draft EIS, a wildlife monitoring plan will be developed to support permitting and licensing and implemented as



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			predictive basis for the effects assessments of the Project on breeding bird species.	the Project proceeds. The wildlife monitoring plan will provide details on the monitoring and follow-up programs outlined in Section 9.4.8 of the draft EIS.
416	YNLR (March 4, 2023)	Section 11.0 Land and Resource Use	Comment #80, Appendix A: YNLR would like to emphasize that natural resource use by Indigenous Peoples of northern Saskatchewan is of incalculable value, and the Project must not infringe upon the ability of Indigenous Peoples to exercise those constitutionally protected rights.	Denison acknowledges the comment. We believe that the work we have done to date with the YNLR, such as entering into an Exploration Agreement in respect of Denison's exploration activities, demonstrates our strong understanding of this YNLR emphasis.
417	YNLR (March 4, 2023)	Section 11.0 Land and Resource Use, p. 11- 50, 11- 57, 11-58, 11- 79, 11-138 and 11-139	<p>Comment #84, 87, 88 and 89, Appendix A: The EIS notes that "The presence of the Project workforce will increase the numbers of people in the ILRU LSA by an estimated 300 during Construction and 180 during Operation and Decommissioning." (p. 11-57)</p> <p>YNRL notes that:</p> <ul style="list-style-type: none"> <li>This is a significant increase in the number and persistence of humans in the area, and despite these vague reassurances, YNLR believes that this increase will affect the ability of Indigenous Peoples to exercise their Aboriginal and Treaty rights and increase the pressures on the natural resources of the area.</li> <li>YNLR believes that Denison provides an overly optimistic conclusion regarding the impacts of the Project on traditional resource use by Indigenous peoples.</li> <li>One indicator of increased human activity is truck traffic. However, these numbers do not include non-truck traffic. How will Denison address this?</li> </ul> <p>As with the impacts on the traditional use of land and natural resources by Aboriginal and Treaty rights holders, the human presence in the region is going to increase, which in turn will put additional pressures on fish and wildlife resources.</p>	<p>Section 12.3.3.2.1 of the EIS describes how access north of the Key Lake gatehouse for employees of northern mines, Indigenous resource harvesters from select communities, cabin owners, and lease owners provides for controlled access to users. Further, Denison staff will not be allowed to hunt or fish. Denison expects to continue to work with Indigenous COI to share information about the proposed impacts of the Project in relation to the potential to adversely impact the exercise of hunting, fishing, trapping and the carrying out of traditional uses as a result of the Project. Information in this respect will be provided as an update to the EIS. Further mitigations identified in Section 12 include:</p> <ul style="list-style-type: none"> <li>Air transportation will be used to transport most workers between the Project site and designated pick-up and drop-off points in communities. Pick-up points will be located at two locally central points in communities within the LSA, one additional site in northern Saskatchewan, and potentially other locations to minimize time spent away from families.</li> <li>Denison's Environment, Health, Safety, and Sustainability Policy will be enforced.</li> <li>Liaison with LSA communities and relevant authorities (e.g., RCMP, health and service providers) will continue.</li> <li>Culturally sensitive employment policies that support the Indigenous workforce will be implemented (e.g., having an Elder representative at the Project site to provide cultural programming)</li> </ul>
418	YNLR (March 4, 2023)	Appendix 16-A Summary of Residual Effects, p. 1	Comment #90, Appendix A: There are about three dozen Valued Component/Key Indicators that are assessed for the significance of residual effects (effects that remain after mitigation) from the Project. They include sediment quality, benthic invertebrates, fish and fish habitat, fish health, terrain, soil, organic matter, vegetation abundance, listed plant species, wetlands, ungulates	The draft EIS carefully evaluated the residual adverse effects remaining on VCs and KIs following implementation of mitigation measures. The EIS conservatively identifies where change from existing conditions are expected for each VC or KI, and assesses this change (i.e., the residual effect) for significance. For instance, the wildlife and avian assessments concluded that the residual effects of the Project are not expected to result in a change to

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			<p>(moose), furbearers (wolverine, pine marten, mink, muskrat), woodland caribou, raptors (bald eagle, osprey), migratory breeding birds (water birds and waterfowl, upland game birds, migratory songbirds), avian species at risk (5), human health and safety, Indigenous land and resource use, other land and resource use, heritage resources, traditional diet, community well-being (income and cohesion), traffic, infrastructure &amp; services, and economics.</p> <p><u>The residual effects of the Project on all of these VCs/Kis are concluded to be non-significant in the EIS.</u></p> <p>YNLR questions this overly optimistic and statistically unlikely prediction. For example, the sheer number of fish and wildlife species that the few selected VC/Kis represent would suggest that some will be adversely affected, even if by chance alone. The assessment effectively states that the Project is advantageous and/or neutral to all biophysical and human values, which YNLR rejects. If the Project proceeds, YNLR will want to be closely associated with all project monitoring programs.</p>	<p>the viability and persistence of the VCs and associated KIs and were, therefore, predicted to be not significant. As the review comment correctly notes residual effects identified in the EIS were deemed to be not significant - that is, the level of effect (change) did not meet the threshold of significance as defined for the VC. The EIS also discusses the certainty (and uncertainty) of the conclusions drawn by the assessment. Each VC or KI is evaluated independently and based on specific Project-environment interactions and VC-specific mitigations. Denison is confident that the conclusions drawn in the EIS with respect to potential effects and their significance are supported by the analysis presented.</p> <p>Details of follow-up and monitoring plans will be prepared in consultation with Indigenous groups, other interested parties, and relevant federal and provincial agencies. YNLR will be informed throughout the monitoring program design and implementation process. Monitoring program design and implementation will be guided by the following principles: programs will meet regulatory requirements, programs will confirm the effectiveness of mitigation measures and predictions made in the assessment, programs will be implemented in an adaptive management framework (if/where applicable) to reduce effects during the lifetime of the Project, and programs will have spatial boundaries that are sufficiently extensive to measure EIS predictions.</p>
419	YNLR (March 4, 2023)	Appendix 16-A Summary of Cumulative Effects	<p>Comment #91, Appendix A: There are about three dozen Valued Component/Key Indicators that are assessed for the significance of cumulative effects (effects that remain after mitigation) from the Project. These include air quality, noise, terrain morphology and stability, groundwater quantity and quality, surface water quality and quantity, soil quantity and quality, organic matter, sediment quality, benthic invertebrates, fish and fish habitat, fish health, vegetation abundance, listed plant species, wetlands, moose, furbearers, woodland caribou, raptors, migratory breeding birds, avian species at risk, human health, Indigenous land and resource use, other land and resource use, heritage resources, traditional diet, income of workers, community cohesion, traffic, community infrastructure and services, and economics.</p>	<p>Please refer to the response to YNLR comments #90.</p> <p>Additionally, Denison notes that there are a number of review comments that have a similar theme. Rather than repeating the same narrative in this table Denison has developed an inclusive technical memo to provide a more coherent and complete response. Accordingly, please refer to the attached memo RE: Wheeler River Project Environmental Impact Statement - Denison's Response to Woodland Caribou Habitat Comments.</p>

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			As with the summary of the residual effects, <u>the cumulative effects of the Project on all of these VCs/Kis are concluded to be non-significant in the EIS.</u> Again, YNLR believes this to be an overly optimistic and statistically unlikely prediction for the same reasons as given above, for example, inadequate spatial boundaries, poorly chosen and grouped VCs and Kis, the apparent omission of the existing linear disturbance network in the effects assessments, and the largely qualitative nature of the assessments and their resultant 'significance.'	
420	YNLR (March 4, 2023)	Executive Summary Monitoring and Follow-Up Programs	<p>Comment #92, Appendix A: YNLR believes there is a lot of uncertainty remaining from this EIS. This stems from several items, including the relatively novel nature of the ISR methodology with its potential effects on water quality and fish health, to the questionable conclusion that the mine will be neutral with respect to the persistence of woodland caribou in the region.</p> <p>If the mine is to be approved, YNLR wants a transparent, independent, statistically robust monitoring program implemented for the life of the Project and beyond. YNLR expects northern Indigenous Peoples to be involved in the design and implementation of such a program.</p>	<p>Details of follow-up and monitoring plans will be prepared in consultation with Indigenous groups, other interested parties, and relevant federal and provincial agencies. YNLR will be informed throughout the monitoring program design and implementation process. Monitoring program design and implementation will be guided by the following principles: programs will meet regulatory requirements, programs will confirm the effectiveness of mitigation measures and predictions made in the assessment, programs will be implemented in an adaptive management framework (if/where applicable) to reduce effects during the lifetime of the Project, and programs will have spatial boundaries are sufficiently extensive to measure EIS predictions. Additionally, Denison has identified key objectives respecting Indigenous engagement associated with the Project:</p> <ul style="list-style-type: none"> <li>• Build and maintain authentic relationships based on a foundation of trust, good faith, and transparency.</li> <li>• Create a respectful dialogue process that promotes communication and collaboration among Denison and Indigenous communities, in a timely and accurate fashion.</li> <li>• Understand how the proposed development of the Project may affect the interests of Indigenous peoples (including Indigenous and/or Treaty Rights), and work with Indigenous peoples to avoid, mitigate, or otherwise address effects, while also collaborating to maximize potential positive effects.</li> </ul>
421	YNLR (March 4, 2023)	General	Comment #1, Appendix B: There is inconsistent use of YNLRO and YNLR throughout several sections of the EIS. Specifically,	Editorial issue with inconsistent abbreviations for Ya'thi Néné Land and Resource Office will be corrected in the final EIS and 'YNLR' will be used.



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			YNLRO in section 3, YNLR in sections 4 and 11. As they are used to represent the same thing, only one format should be used.	
422	YNLR (March 4, 2023)	Section 1.0 Project Introduction and Overview, p. 1-5 Section 3.0 Value of IK in EA Practice, p. 3-1 and 3-2	<p>Comment # 2 and 6, Appendix B: EIS Page 1-1, second paragraph, first sentence states: "The Project falls within the boundaries of Treaty 10, the Nuhtsiye-kwi Benéne (Ancestral Lands) of English River First Nation, the traditional territory of the Kineepik Métis Local #9, the homeland of the Métis, and the Nuhenéné."</p> <p>YNLR notes that this is a misuse of Nuhenéné as the name of the people. This should be "Nuhenéné, the traditional territory of the Athabasca Denesųliné".</p> <p>In reference to section 3.1 of the EIS (p. 3-1 to 3-2), YNLR also notes that the Wheeler River Project falls within Nuhenéné and Athabasca Denesųliné perspectives and knowledge should have been sought throughout all stages of the Environmental Assessment (EA). Early inclusion in this project would have been beneficial to both the Athabasca Denesųline communities and to Denison through increased sharing of knowledge.</p>	At first instance of 'Nuhenéné' Denison will recognize: 'Nuhenéné, the traditional territory of the Athabasca Denesųliné.'
423	YNLR (March 4, 2023)	Section 1.0 Project Introduction and Overview, p. 1-5 and 4-12	<p>Comment #3, Appendix B: There YNLR notes that the Hatchet Lake Denesųliné First Nation, an Athabasca Denesųliné community, is the closest to the Project. The Wheeler River EIS seems to rely on road distance rather than physical proximity.</p> <p>Road distance should not be utilized to determine community importance or impacts since not all travel methods require continuous roads. Travel to this part of our traditional territory is typically achieved cross country rather than by road.</p> <p>Comment #13, Appendix B: YNLR notes that Hatchet Lake First Nation is located 150 km...Black Lake First Nation is located 180 km...and Fond du Lac First Nation is located 230 km away from the Project as recognised on page 4-47 of the draft EIS. Our community members generally access the Project area via overland routes rather than the established Provincial Road network.</p>	Thank you for the information.

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424	YNLR (March 4, 2023)	Section 1.0 Project Introduction and Overview, p. 1-4 and 1-7	<p>Comment #4 and 5, Appendix B: Athabasca Denesųliné land uses include, but are not limited to, large and small game harvesting, gathering activities, and fishing, all of which are of key cultural importance.</p> <p>It is important to note that the Hatchet Lake Denesųliné First Nation and the community of Wollaston Post are situated at Wollaston Lake and given their downstream location there is potential for negative impacts.</p>	<p>Potential effects from the Project on surface water quality were comprehensively assessed in Section 8.2 of the draft EIS. The assessment evaluated discharge of treated effluent from the site using predictive modeling. Water treatment will be conducted in the onsite Industrial WasteWater Treatment Plant (IWWTP) and treated effluent will be tested prior to release to Whitefish Lake. Treated effluent that does not meet the effluent discharge criteria in the provincial approval to operate or effluent criteria defined in the Metal and Diamond Mining Effluent Regulations will not be released to Whitefish Lake and will be recirculated to the process water pond for eventual re-treatment in the IWWTP. In the draft EIS, Section 8.2 the predictive modeling showed that constituent concentrations including radionuclides would be below water quality objectives for the protection of aquatic life (i.e., no effects would be expected) at the outlet of Whitefish Lake. The outlet of Whitefish Lake is well upstream of the inflow of Icelfander River to Russell Lake. Since no effects on surface water quality are expected to occur in the lake closest to the Project, no effects would accrue in areas further downstream in the watershed, where contributing sub watersheds are many, many-times the size of the sub watersheds near the Project site. As such, there will be no effects on surface water quality in Wollaston Lake from the Project activities.</p>
425	YNLR (March 4, 2023)	Section 3.0 Value of IK in EA Practice, p. 3-5	<p>Comment #7, Appendix B: YNLR notes that while the wording for EIS Page 3-5, first paragraph, is an improvement from the May 2021 draft, it does not make clear that no Wheeler River site specific Athabasca Denesųliné knowledge or land use studies were undertaken and that the information presented is from a variety of other projects with differing objectives and study areas.</p> <p>The issue is better captured/described in the EIS on page 11-39.</p>	Acknowledged, updated language will be included in the EIS.
426	YNLR (March 4, 2023)	Section 3.0 Value of IK in EA Practice, p. 3-10	<p>Comment #8, Appendix B: YNLR notes that there appears to be grammatical errors for page 3-10, last paragraph of the EIS.</p> <p>YNLR requests edits to: "Ya'thi Néné Lands and Resources, the point of contact for and representative of the Athabasca Denesųliné communities of Black Lake, Fond du Lac, and Hatchet Lake Denesųliné First Nations, as well as the northern hamlets/settlements of Stony Rapids, Wollaston Lake, Uranium City, and <u>Camsell Portage, provided their report; An Exploration</u></p>	Acknowledged, edit will be made to the EIS.

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			<u>of Recorded Athabasca Denesųliné Traditional Knowledge, Land Use and Occupancy Information in the Vicinity of Denison Mines Wheeler River Project</u> , that summarized traditional knowledge and land use and occupancy information collected for various other projects and initiatives and partially documented Athabasca Denesųliné use in the Project area, although it is not considered as a site-specific study."	
427	YNLR (March 4, 2023)	Section 3.0 Value of IK in EA Practice, various pages	<p>Comment #9, 10, 12, 15, 16, 17, 19 and 35, Appendix B: YNLR notes that as the Athabasca Denesųliné were not considered to be an Indigenous COI, the opportunities to contribute to our knowledge to this discussion were diminished or lost.</p> <p>Comment #19, Appendix B: The mis-categorization as the Athabasca Denesųline am Indigenous Community rather than as an Indigenous COI is a step backwards rather than forwards with regards to reconciliation. A letter to Denison dated July 29, 2022, YNLR critiqued the designations of COI and IC as being artificial and marginalizing. Denison responded October 28, 2022, after the submission of Wheeler River EIS with an alternative view.</p> <p>Other related comments include:</p> <ul style="list-style-type: none"> <li>• Comment #9, Appendix B: Only 4 of 31 aspects influenced (from EIS Table 3.5-1) for Indigenous knowledge and 3 of 37 aspects influenced (from EIS Table 3.5-2) for local knowledge were taken from Athabasca Denesųline knowledge sources. How will Denison address this?</li> <li>• Comment #10, Appendix B: YNLR notes that the Athabasca Denesųliné communities should be considered an Indigenous COI per Denison's definition (EIS page 4-vii) as they are/have: <ul style="list-style-type: none"> <li>○ signatories of Treaty 10 and Athabasca Denesųline traditional territory is within the Project area (Hatchet Lake First Nation is a signatory to Treaty 10 as recognised on page 4-47 of the draft EIS)</li> </ul> </li> </ul>	<p>Denison's approach to identifying Indigenous COIs considered several factors as identified in Section 4.3.1 of the EIS. Being signatories of Treaty 10 was among, but not the sole applicable criteria, and not all Treaty 10 communities are considered as Indigenous COIs for the Project. Through continued and focussed engagement with the YNLR since the YNLR identified its interest in the Project in 2019, Denison has come to better understand the Athabasca Denesųliné communities' relationship to the Project site and current use of the areas for traditional purposes. Denison acknowledges that the Hatchet Lake Denesųliné First Nation has the potential for established Indigenous and Treaty Rights proximal to the Project. The Hatchet Lake Denesųliné First Nation, as represented by the YNLR will be identified as an Indigenous COI in the updated EIS.</p> <p>With respect to Denison's consideration of Indigenous Knowledge shared by the Athabasca Denesųliné knowledge sources, Denison notes that Tables 3.5-1 will be updated to better reflect where the YNLR's An Exploration of Recorded Athabasca Denesųliné Traditional Knowledge, Land Use and Occupancy Information in the Vicinity of the Denison Mines Wheeler River Project, which was included as an Appendix to the EIS, was considered and included as Table 3.5-1 does not reflect all instances the report was utilized. With respect to Table 3.5-2, only a limited number of data sources were considered and labelled as Local Knowledge - which is representative of information collected outside of a community-led IK process, key person interviews, or engagement events. As such, there may be limited examples in which knowledge shared constituted local knowledge, and may have been considered as either IK or engagement outcomes.</p>

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			<ul style="list-style-type: none"> <li>○ established Treaty rights in proximity to the Project</li> <li>○ more likely to experience impacts, for example, water drainage as indicated on page 1-7 of the EIS ultimately flows into Wollaston Lake where the Athabasca Denesųline community of Hatchet Lake is located</li> <li>• Comment #12 and 16, Appendix B: YNLR notes that the Project is located within Nuhenéné (the Athabasca Denesųliné traditional territory) as recognised on page 4-61 of the draft EIS. Further, Hatchet Lake First Nation is a signatory to Treaty 10, while Black Lake First Nation and Fond du Lac First Nation are signatories to Treaty 8, and as such all have Treaty Rights within the Project area and that ; that our communities are in proximity to the Project and have demonstrated traditional activity;</li> <li>• Comment #15, Appendix B: YNLR notes that the Athabasca Denesųline has relationships with other projects such as McArthur River and Key Lake as indicated in ROC-78, page 504, Combined Appendices for the Wheeler River Project Draft EIS.</li> <li>• Comment #17, Appendix B: Given these EIS defined criteria, YNLR has difficulty understanding why the Athabasca Denesųliné have been excluded from Indigenous COI status for this project. Exclusion of COI status means loss of opportunity for the communities to be part of greater engagement throughout all stages of the Project. Lost opportunities are considerable and include loss of participation at all phases of the Project and include influence regarding the boundaries of the study areas, possibilities for increased discussions regarding environmental and health concerns, mitigation procedures, and planned remediation, potential to participate in monitoring and research projects and future opportunities such as employment.</li> <li>• Comment # 35, Appendix B: YNLR notes that the engagement database demonstrates that their opportunities to contribute were limited. For example, of the approximately 101 pages of Engagement Database</li> </ul>	



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			<p>tables that are dispersed through several sections of the appendices for the EIS (2022), there are 6 entries credited to the Athabasca Denesųliné. Given an average of 3 to 5 entries per page in the tables, this means that only 1-2% of the contributions were made by the Athabasca Denesųliné. These limited opportunities may well be the result of the exclusion of Athabasca Denesųline from the COI category.</p> <p>[Additional questions on this topic directed to regulators or government entities are included in the CNSC table]</p>	
428	YNLR (March 4, 2023)	Section 4.0 Engagement, p. 4-14, 4-61	Comment #20 and 22, Appendix B: YNLR note that project is within Nuhenéné. There is no need to state the southern edge. It could be argued that the Project is on the northern edge of other Indigenous groups areas. Such descriptions have been applied inconsistently to the groups. Territories should be described in an unbiased manner.	Noted, EIS will be updated accordingly.
429	YNLR (March 4, 2023)	Section 4.0 Engagement, p. 4-61	Comment #23, Appendix B: YNLR notes that the EIS text on page 4-61 should recognise that this report was a compilation of existing YNLR data from a variety of projects with differing objectives and study areas, and that no research was commissioned.	Noted, EIS will be updated accordingly.
430	YNLR (March 4, 2023)	Section 4.0 Engagement, p. 4-65	<p>Comment #24, Appendix B: YNLR believes that the EIS section on page 4-65 referring to the letter sent by Denison dated October 28, 2022 rather than in early October as stated in the draft EIS. Given the draft EIS was submitted to the CNSC on October 24, 2022, four days before Denison responded to YNLR concerns, further opportunity to provide clarifications or specific details for inclusion in the EIS were lost.</p> <p>YNLR does not agree that all our concerns have been addressed in the EIS.</p>	Denison understands the EIS involves an iterative process and Denison will continue to engage with YNLR at their direction.
431	YNLR (March 4, 2023)	Section 11.0 Land and Resource Use, p. 11-8	Comment #26, Appendix B: YNLR notes that the Athabasca Denesųliné had limited opportunity to contribute to VCs. One community virtual meeting was presented to the Athabasca Denesųline, while there appears to have been approximately 12 events for other First Nation communities (combined) including	In March 2019, Denison was notified by the YNLR that the Indigenous communities within the local Athabasca communities identified were interested in the Project and that YNLR held the Duty to Consult from these communities. Since receiving correspondence from the YNLR office in 2019 Denison has been collaboratively working with the YNLR office in a mutually

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			workshops, school presentations, meetings (in person and virtual) and open houses (draft EIS pp 4-16 to 4-86). While YNLR appreciate the opportunity to participate and recognize the impacts of Covid-19, the difference between Athabasca Denesųline participation and other groups is stark.	agreed upon manner and will continue to do so. Denison understands the EIS involves an iterative process and Denison will continue to engage with YNLR at their direction.
432	YNLR (March 4, 2023)	Section 11.0 Land and Resource Use, p. 11-14	Comment #27, Appendix B: YNLR notes that the Athabasca Denesųliné have demonstrated land use in both the local and regional land use as per our report (YNLR 2022). YNLR has reported 371 Athabasca Denesųline Traditional Land Use and Occupancy data entries within the Denison regional study area. These include 18 points for harvesting of big game, such as barrenground caribou, moose, and woodland caribou, 29 overnight sites, 21 points where birds or eggs such as duck and spruce grouse were harvested. Other activities include furbearer harvesting, fishing, including commercial and tourism related activities such as guiding. A map of these activities is reiterated here.	Thank you, noted.
433	YNLR (March 4, 2023)	Section 11.0 Land and Resource Use, p. 11-18, 11-40, 11-41, 11-94 and 11-95	Comment #28, 31 and 32, and 34 Appendix B: YNLR notes that Denison's understanding of the nature of the 2022 YNLR Report is incomplete. As YNLR noted many times, this report is an amalgamation of known information contained within YNLR's database. It comes from a variety of projects each with differing objectives and geographic scope. It is not a Wheeler River-specific Athabasca Denesųliné Knowledge, Land Use, and Occupancy (ADKLUO) Study. This, in our opinion, leads to misunderstandings and misrepresentations within the draft EIS. Additional clarifications are that our report is not a Wheeler River-specific TLU study, nor were any such specific works undertaken or commissioned. This is important because it sets the tone for comparisons with other Indigenous groups who have met with Denison far more frequently and conducted far more intensive and focused works. Additionally, the limited engagement with did not allow for a shared Athabasca Denesųline – Denison in- depth exploration of Athabasca Denesųliné experiences.	Section 11.1.2.4 of the EIS will be updated to reflect the fact that the YNLR's report is an amalgamation of known information from YNLR's database and was not collected explicitly for the purposes of the Project, and as such, should be interpreted by the reader with caution.  Section 3.3 of the YNLR's report notes that the comments shared are not geo-located. Without having the locations disclosed, information may have been excluded from Section 11.0 as there was no way to confirm whether those activities overlapped with the spatial boundaries under consideration for potential effects to Indigenous Land and Resources Use.

Denison's Responses to Comments from YNLR on the Wheeler River Project draft EIS  
November 23, 2023

Ref. No.	Source	Reference to EIS, appendix, or supporting documentation	Comment Summary (all original submissions can be found on Canadian Impact Assessment Registry reference: 80171)	Denison Response
			<p>Using the YNLR Report requires an understanding that the amalgamated information comes from a variety of projects and was collected for a variety of purposes. For example, the report mentions woodland caribou values, tracks, and sightings within the EIS study area.</p> <p>This information comes from various caribou studies and our database records project.</p> <p>information. This information clearly demonstrates that Athabasca Denesųline members were in the EIS area, that harvesting or other values were not recorded is a function of the purpose of the woodland caribou study rather than an indication that Athabasca Denesųline do not utilize the area for other traditional purposes. Other such interpretations or misrepresentations exist within the report. Additional engagement with the Athabasca Denesųliné communities and YNLR could have ensured further clarification.</p> <p>Information from the 2022 YNLR Report Section 3.3 appears to have been disregarded in the draft EIS. This information includes references to activities mentioned during duty-to-consult works for other projects with the LSA. This includes hunting, fishing (including commercial) and the gathering of berries and medicines. The responses also indicate that the land is used for therapeutic purposes, youth gatherings, fish camps and general camping. Further the responses note that areas were utilized year-round for hunting, trapping, and fishing, with activities such as berry picking occurring in summer. Impact concerns raised by the interviewees in included damage to the lands and water, how wildlife will be affected, disruption to traditional activities and accessibility to the areas while projects are ongoing. Surely, this information is relevant to the Wheeler River project and should be included with the EIS?</p> <p>YNLR also indicated to Denison in July 2022 that some of the publicly available information is the draft EIS was misleading and of limited relevance to this project.</p>	

Denison's Responses to Comments from YNLR on the Wheeler River Project draft EIS  
November 23, 2023

Ref. No.	Source	Reference to EIS, appendix, or supporting documentation	Comment Summary (all original submissions can be found on Canadian Impact Assessment Registry reference: 80171)	Denison Response
434	YNLR (March 4, 2023)	Section 11.0 Land and Resource Use, p. 11-37	Comment #29, Appendix B: YNLR notes that the Map of BQ Caribou Range in draft EIS Section 11.1.3.3.26 is misdated, it should be BQCMB 2012. The original source map is dated 2000, but includes telemetry data from 2012 so is more appropriately dated as 2012.	Noted, the map included in Section 11.1.3.2.6 (Figure 11.1-5) will be updated to reflect the appropriate date.
435	YNLR (March 4, 2023)	Section 11.0 Land and Resource Use, p. 11-40	Comment #30, Appendix B: YNLR notes, as they did previously, that they are unclear what the relevance of including these sources is, since neither the CBEMP nor the Tazi Twé project investigated land use in the Wheeler River area. The March 2022 YNLR compilation report provides clear indications that the Athabasca Denesųline communities utilize the areas in the vicinity of the Project.	Noted, Denison provided publicly available information on the Community Based Environmental Monitoring Program and the socio-economic baseline assessment for the Tazi Twé Hydroelectric Project EIS to provide context on recorded harvests in locations close to communities and distant from the Project. Section 11.1.3 further provides context from the YNLR 2022 report and their recorded land use in the vicinity of the Project.
436	YNLR (March 4, 2023)	Section 11.0 Land and Resource Use, p. 11-40	Comment #31, Appendix B: YNLR notes that the citations on the EIS page 11-40 are listed as YNLR 2020 and should likely be 2022.	Noted, the EIS will be updated.
437	YNLR (March 4, 2023)	Section 11.0 Land and Resource Use	Comment # 33, Appendix B: Pages 11-94 and 11-95 of the EIS uses the term historic.  YNLR notes that the use of the term historic is prejudicial and incorrect. YNLR were assured by Denison that they had removed the term historic during earlier discussions.	Denison has verified that the term 'historic' is not included or referenced on pages 11-94 or 11-95 of the EIS.
438	YNLR (March 4, 2023)	Section 11.0 Land and Resource Use	Comment #36, Appendix B, EIS Page 11-100 third- and fourth-lines states "The YNLR described trapping activity by one of its Athabasca Denesųliné member at Keefe Lake to the east of the RSA but did not report any trapping in N-14 (YNLR 2022)." YNLR notes that the reference to trapping in N-14 is perplexing as the Saskatchewan Trappers Association map shows that N-14 is south of the Project area. Further there is a typo: "not" instead of "nor"	Denison will revise the EIS to correct the typo.

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To: Ya'Thi Néné Lands and Resource Office

From: Denison Mines Corp.

Date: November 22, 2023

Re: Wheeler River Project Environmental Impact Statement - Denison's Response to Woodland Caribou Habitat Comments

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## Attachments

Attachment A: Ya'Thi Néné Lands and Resource Office Comments Related to Woodland Caribou Habitat

Attachment B: Pilot Program: Linear Feature Mitigation Interim Report – Status Update and Preliminary Results

Attachment C: Conceptual Caribou Mitigation Plan



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## **1 Summary of Ya'Thi Néné Lands and Resource Office (YNLR) Comments**

Denison Mines Corp. (Denison) received consolidated comments from Indigenous Nations and Communities and the public on the draft Wheeler River Project (the Project) Environmental Impact Statement (EIS) from the Canadian Nuclear Safety Commission on June 27, 2023.

These comments are at: [available on the federal impact assessment registry \(https://iaac-aeic.gc.ca/050/documents/p80178/152187E.pdf\)](https://iaac-aeic.gc.ca/050/documents/p80178/152187E.pdf).

This technical memorandum (memo) is provided to supplement Denison's responses to YNLR's comments that can be found in the comment / disposition table. The memo addresses a number of comments that pertained to a similar theme – that is, woodland caribou habitat and questions regarding how the Project could add to the existing disturbances on the landscape, primary mineral exploration cutlines. Specifically, this memo considers YNLR comments numbers 53 to 68 and provides a more coherent, inclusive, and integrated response to facilitate review.

## **2 Existing Anthropogenic Disturbance: Considerations in the Terrestrial Environment Component of the Environmental Impact Assessment**

### **2.1 Baseline Characterization**

A two-step procedure was used to develop baseline mapping for the Local Study Area (LSA) and Regional Study Area (RSA) that including delineation of anthropogenic disturbance. First, the Environment and Climate Change Canada (ECCC) national level anthropogenic mapping was downloaded and clipped to the study area boundaries (ECCC 2015). Second, to improve the resolution and ensure appropriate characterization of disturbance, all visually discernible anthropogenic features in the area were digitized at a scale 1:5,000. To support this process and enhance the final product, a combination of 2018 project specific ortho-photography, Landsat Imagery (2018) and Map Info Microsoft Bing Imagery (2018) were used to visually identify/confirm anthropogenic features. Industrial clearings (polygons) were hand drawn based on the imagery. All linear features were digitized as lines and buffered to create polygons as per the widths detailed below:

- Cutline: 1.75 m
- Right-of-way (ROW): 2.5 m
- Trail: 4 m
- Rough Road: 5.5 m
- Road: 10 m
- Transmission ROW: 40 m
- McArthur-Key Haul Road/Highway 914: 40-60 m

The baseline efforts to characterize and map anthropogenic disturbance in the LSA and RSA were used to develop the ecosite mapping that was used in Section 9 of the EIS to support assessment of potential Project related effects on relevant Valued Components and Key

Indicators. Considering this approach, existing geophysical cutlines are included in baseline studies and results from baseline field surveys reflect wildlife species use of the area under existing conditions.

## **2.2 Exploration Activities**

As noted in the YNLR review comment mineral exploration activities occur in the Athabasca Basin. Denison believes it is useful herein to clarify mineral exploration terminology within the context of its understanding of such activities in the region (in which it engages) and terminology used by YNLR.

For clarification seismic lines and cut lines are two very different items in terms of scale. A seismic survey is a geophysical survey type that is not typically used in the Athabasca Basin as part of exploration activities as it has had limited positive results. When used, it requires the development of relatively large and wide lines (~5 m; seismic lines) to accommodate the movement of seismic equipment that is mounted on a half-ton sized equipment. In Denison's experience, seismic survey applications are generally restricted to projects in an advanced state of development, as they are expensive to complete and do not provide good value at the early stage of the exploration cycle. In contrast, cut lines, which are generally no more than a 1 m wide, are the preferred methods to orientate a ground survey once airborne surveys have identified an area of exploration interest. These cut lines do not remove the roots of the trees and leave slash (tree branches, woody debris) behind to promote new vegetation growth. Cut lines can facilitate geophysical surveys such as magnetics, electromagnetic, gravity, and resistivity. More recently, technologies such as drones have been adapted to accommodate detailed magnetic and electromagnetic surveys which can be flown close to the ground surface without the need of cut lines. Other surveys such as resistivity still require a level of precision that rely on the use of cut lines to accommodate crews and equipment.

In order to conduct mineral exploration activities on Crown land within Saskatchewan, surface disturbance permits are required from the Ministry of Environment before any work can be started. The Mineral Exploration Guidelines for Saskatchewan provides information to assist in the planning, initiation, and completion of a mineral exploration program in a fashion that will help minimize environmental impacts and meet relevant legislative requirements. The Mineral Exploration Guidelines include a variety of best management practices including those related to access and forest clearing/harvesting operations.

For context and to relate this information back to Section 2.1 Baseline Characterization, the majority of the straight linear features digitized in the LSA and RSA as part of the baseline anthropogenic mapping were cutlines. These lines were buffered by 1.75 m to create polygons.

## 2.3 Appendix 9-B

Appendix 9-B of the draft EIS presents the baseline inventory for wildlife and vegetation which was completed by Omnia Biological Services (Omnia) from 2016 to 2019. The baseline report is meant to summarize the findings from targeted studies and field surveys. The objectives of the terrestrial baseline surveys were to:

- Characterize the existing terrestrial environment in the Project Area,
- Inform pre-feasibility engineering design work,
- Inform environmental effects and technical assessments,
- Establish a framework to facilitate future environmental effects monitoring, and
- Support the development of project specific mitigation strategies .

Accordingly, **the baseline report was not intended to provide an assessment of Project effects**. It is recognized that Appendix 9-B, Section 2.3 Linear Feature Natural Regeneration Assessment, is not aligned with the overall objectives of the baseline report and moreover, is not meant to be read in conjunction with, or contribute to, the effects assessment presented in the EIS.

In addition, there are incorrect statements contained in Appendix 9-B, Section 2.3 Linear Feature Natural Regeneration Assessment, which are a result of incorrect interpretation of methodological approach to consider caribou habitat disturbance. These statements were effectively outside the scope of the baseline scope and report objectives and in retrospect should not have been reported.

Here is one of the statements in Appendix 9-B, Section 2.3 Linear Feature Natural Regeneration Assessment which has caused confusion around existing disturbance on the landscape:

*For SK1, in 2018, ECCC indicated that to ensure sustainable caribou populations total buffered anthropogenic disturbance should not exceed five percent and that total disturbance (natural + buffered anthropogenic) should not exceed 40 percent. Currently, under this scheme, the Denison project area is considered to be completely disturbed when taking into account buffered anthropogenic disturbance in the LSA and is 82% disturbed in the RSA. Linear disturbances, in the form of exploration lines, temporary exploration trails and all season and seasonal roads were most common.*

Denison provides the following clarifications and corrections:

- The baseline information used an outdated recovery strategy. The Omnia baseline report was finalized in 2019 and the most recent recovery strategy available at that time and referenced in the report was from 2012 (EC 2012). The 2020 amended recovery strategy (ECCC 2020) replaces the 2012 Recovery Strategy (ECCC 2012).
- The anthropogenic mapping completed to support the draft EIS was done at a higher resolution/scale compared to ECCC's approach in the amended recovery strategy (ECCC 2020).



- As noted above, **anthropogenic mapping was done using digitization at the 1:5,000 scale** to support the EIS.
- ECCC (2020) mapped total disturbance levels on boreal caribou ranges across their distribution in Canada as a predictor of self-sustainability for boreal caribou local populations. The total disturbance footprint was measured as the combined effects of fire that has occurred in the past 40 years and **buffered (500 m) anthropogenic disturbance defined as any human-caused disturbance to the landscape that could be visually identified from Landsat imagery at a scale of 1:50,000.**
- Contrary to what was shown Section 2.3 of Appendix 9-B, applying a 500 m buffer to geophysical cut lines digitized at 1:5,000 scale is not consistent with the amended recovery strategy (ECCC 2020). **At the 1:50,000 using Landsat imagery, geophysical cutlines would not be visible.**
- Given the above, the information presented in the Omnia baseline report (Appendix 9-B, Section 2.3 Linear Feature Natural Regeneration Assessment) was erroneous in that it was beyond the scope and objective of the baseline program. In fact, this section of the baseline report reflects and is related to Denison's initiation of a proactive, multi-year research program to better understand how wildlife use linear features. We have attached an interim report from Omnia for YNLR's reference. Among other things the report includes information on wildlife landscape use and movement from trail camera data that indicates considerable use of and movement along linear features. This interim report and the linear feature deactivation work is also discussed in the conceptual woodland caribou mitigation plan. The baseline report should have focused on the results of surveys and existing information that describe the existing conditions in the project areas and should not have extended beyond this scope. The assessment of potential Project effects on the various terrestrial Valued Components (VCs) is included in the main part of Section 9 and as indicated Appendix 9-B, Section 2.3 Linear Feature Natural Regeneration Assessment, was not meant to be read in conjunction with, or contribute to, the effects assessment presented in the EIS.

Denison recognizes that a number of YNLR's comments reference Appendix 9-B and regrets the confusion it has caused during YNLR's review of the draft EIS. Denison will revise Appendix 9-B to remove the discussion on cumulative effects and buffered anthropogenic disturbances. We refer YNLR to the analysis and assessment completed by the environmental assessment (EA) technical leads and biologists at EDI Environmental Dynamics Inc., as presented in Section 9 of the draft EIS.

## 2.4 Assessment of Potential Effects on Woodland Caribou and their Habitat

All past anthropogenic disturbances (which includes cutlines to support mineral exploration) were considered in the various terrestrial environment assessment components. These human

disturbances were mapped and considered/addressed appropriately in Section 9 including the Existing Environment, Residual Effects Characterization, and Cumulative Effects Assessment sections, as they relate to Terrain, Soil and Organic Matter/Peat (Section 9.1); Vegetation and Ecosystems, Listed Plant Species and Wetlands (Section 9.2); Ungulates, Furbearers and Woodland Caribou (Section 9.3); Raptors, Migratory Breeding Birds, and Bird Species at Risk (Section 9.4). **The cutlines were classified as previously disturbed areas and considered as low-quality habitat or no habitat, depending on the species being assessed and their habitat requirements.**

An anthropogenic disturbance layer is included on draft EIS, Figure 9.2-6, which includes geophysical cutlines. Please note that anthropogenic disturbance features were mapped at IKONOS 1:5,000. This anthropogenic disturbance layer is not listed under available habitat types for any of the wildlife or avian VCs in subsequent assessments (e.g., Figures 9.3-9 to 9.3-14, Figures 9.4-8 to 9.4-11, Figures 9.4-13 to 9.4-15), except for Common Nighthawk (Figure 9.4-12) that is a species known to use anthropogenic features.

In terms of the woodland caribou population in SK1, the likelihood of self-sustainability for the Boreal Shield range (SK1) has been updated from “unknown” (EC 2012) to “likely” in the amended recovery strategy (ECCC 2020). The SK1 range comprises more than 18,000,000 ha and is characterized by high fire disturbance and low anthropogenic disturbance (ECCC 2020). For SK1, the amended recovery strategy (ECCC 2020) identifies 40% undisturbed habitat in the range as the disturbance management threshold, which provides a measurable probability (71%) for the local population to be self-sustaining. This threshold is considered a minimum threshold because at 40% undisturbed habitat there remains a risk (29%) that the SK1 local population cannot be self-sustaining. According to ECCC (2020) disturbed habitat is habitat showing: i) anthropogenic disturbance visible on Landsat at a scale of 1:50,000, including habitat within a 500 m buffer of the anthropogenic disturbance; and/or ii) fire disturbance in the last 40 years, as identified in data from each provincial and territorial jurisdiction (without buffer). In contrast, according to ECCC (2020) undisturbed habitat is habitat not showing any: i) anthropogenic disturbance visible on Landsat at a scale of 1:50,000, including habitat within a 500 m buffer of the anthropogenic disturbance; and/or ii) fire disturbance in the last 40 years, as identified in data from each provincial and territorial jurisdiction (without buffer). The cumulative effects assessment in the draft EIS showed that the Project is expected to add 0.001% of anthropogenic disturbance at the scale of the SK1 Boreal Shield Woodland Caribou Management Unit (Section 9.3.7.3.3 of the EIS).

Specific to woodland caribou, the draft EIS evaluated and assessed potential Project-related effects on the boreal population of woodland caribou following standard environmental assessment (EA) methodology. The assessment of potential effects considered both direct (i.e., habitat loss) and indirect effects (i.e., habitat alteration) on caribou and their habitat, while assuming that caribou were present year-round and during all of their life stages (i.e., calving, rearing, mating, over wintering). In this way, the EIS took a precautionary or conservative approach to understanding/addressing the likely residual effects (i.e., effects remaining after mitigation measures were considered) of the Project on caribou and their habitat. This approach provides is appropriate as a planning tool to inform/support future Project-related

regulatory approvals processes and to guide the scope and nature of follow-up monitoring. After consideration of measures to avoid and mitigate the potential for effects on caribou and their habitat it was concluded that the likely residual effects of the Project on caribou and their habitat were **not significant**. While the EIS did not consider specific additional opportunities to offset the non-significant effects, Denison has been working to develop a Conceptual Caribou Mitigation Plan (see Section 5 below). The plan was submitted to the provincial and federal review teams as part of the response to federal information requirements in August 2023 as the Conceptual Caribou Mitigation Plan and Denison has been in close contact with the Saskatchewan Ministry of Environment (SK ENV), as stewards of woodland caribou from a regulatory perspective.

### 3 Spatial Scale for the Caribou Assessment

Several of YNLR comments were related to the spatial scale of the caribou assessment. This section presents an overview of the approach taken in the terrestrial assessment and specifically where the SK1 range was considered in the caribou assessment.

The rationale for the definition of study areas for the purpose of the assessment of the Terrestrial Environment valued components (VCs) is described in Section 9.1.1 of the draft EIS. The Project Area (169 ha or 1.69 km<sup>2</sup>) and LSA were delineated based on the expected extent of potential direct (footprint) and indirect (sensory disturbance) Project effects; whereas, the RSA considered an 8 km buffer around the Project Area to provide an appropriate spatial scale upon which potential Project effects could be evaluated at the landscape scale where key Terrestrial Environment VCs reside and move within and upon which cumulative effects could be assessed.

Boreal caribou occur as one continuous population across the SK1 range (18,034,870 ha), including within the Terrestrial RSA. After consideration, it was decided by Denison and its Subject Matter Experts at EDI Environmental Dynamics Inc. to use the Terrestrial RSA for the cumulative effects assessment for caribou rather than the entire SK1 range. This decision was made largely on the basis that it would not be feasible / appropriate to use a such large area like the SK1 range to assess cumulative effects since consideration of such a large spatial extent would likely "dilute" the contribution of the Project to potential effects at that scale. In support of this decision, comparison of the Project-specific habitat effects (i.e., the Project Area plus a 500 m buffer to account for sensory disturbance) relative to the scale of the SK1 range (as the applicable management unit for portion of the woodland caribou population that uses the Terrestrial RSA) was made. The comparison indicated that the Project is expected to add 0.001% of anthropogenic disturbance at the scale of the SK1 Boreal Shield Woodland Caribou Management Unit (Section 9.3.7.3.3 of the EIS). As can be seen, the default conclusion at the range scale could only be that the Project does not contribute to cumulative effects at a practical measurable level.

In addition, it is appropriate to also consider the assessment of terrestrial environment from the perspective of Land and Resource Use per Section 11 of the draft EIS, since the two (Terrestrial Environment and Land Resource Use) are so intimately related. For context the Terrestrial Environment RSA, fits within the Indigenous Land and Resource Use RSA. Section 11 of the

EIS is focused on Land and Resource Use and includes consideration for various terrestrial VCs and key indicators (KIs) as resources. With respect to Indigenous Land and Resource Use, the definition of spatial boundaries is offered in Table 11.2-2, which notes that the LSA is inclusive of the area in which direct and indirect effects to relevant VCs could likely occur, and includes the maximum combined extent of supporting VCs associated with the aquatic, terrestrial, noise, and health LSAs. Additionally, it is inclusive of trapping, fishing, and travel through and adjacent to the Project Area. The RSA is inclusive of trapping block N-18, which represent a familiar reference for local Indigenous communities and capture the broad land usage patterns of local communities.

## **4 Cumulative Effects Assessment under the Canadian Environmental Assessment Act, 2012**

The Wheeler River Project EIS is subject the *Canadian Environmental Assessment Act, 2012*. In this assessment framework, the Project-specific cumulative effects assessment (CEA) considers whether residual adverse effects of the Project on a given VC will overlap spatially and/or temporally with residual adverse effects on the VC resulting from other past, present, and reasonably foreseeable projects or activities. The CEA follows standard methodology as per provincial (e.g., Guidelines for an Environmental Assessment [Government of Saskatchewan 2022]) and federal guidance (e.g., Assessing Cumulative Environmental Effects under the Canadian Environmental Assessment Act, 2012 [Government of Canada 2019]).

For residual effects to be considered in the CEA for the Project, the following criteria had to be met:

- potential exists for a residual adverse effect of the Project on a VC;
- the residual adverse effect can be demonstrated to act cumulatively with the residual adverse effects from other projects or activities on the same VC;
- other projects or activities must have been, or are expected to be, carried out in the reasonably foreseeable future; and,
- the cumulative effect is likely to occur.

The approach for assessing cumulative effects considers both the current conditions (which include changes caused by past development, projects, and activities, and are, therefore, considered in the baseline condition of the VC) and the identified reasonably foreseeable future projects and/or activities.

The steps of the CEA for each VC are:

1. Determine the spatial boundaries for the CEA, which is VC specific, and typically the RSA for the VC.
2. Determine the project inclusion list of all other past, present, and reasonably foreseeable projects and/or activities that are expected to have adverse residual effects that extend into the VC RSA.



3. Consider all Project-related residual effects that were identified during the effects assessment for each VC, regardless of significance.
4. Identify the potential for interaction (i.e., must overlap spatially and temporally) of the Project-related residual effects with those of other projects and activities identified in Step 2 above.
5. Identify and describe the cumulative effects, and if practical, identify technically and economically feasible mitigation measures (i.e., in addition to those already identified to mitigate potential Project effects) to avoid, reduce, or otherwise mitigate the predicted cumulative effects.
6. Qualitatively assess and evaluate (i.e., characterize) the cumulative effects with respect to the likely nature and degree of change from the existing (baseline) environment as a result of the Project's residual effects in combination with the residual effects of other relevant future projects and activities.
7. Determine the significance of the cumulative effect using characterization criteria as defined for the residual effects evaluation.

In the draft EIS, Denison included a number of project activities as existing/present and reasonably foreseeable. This includes historic anthropogenic disturbance associated with exploration activity, drilling, and access creation in support of past exploration and mining activities have occurred within the Athabasca Basin since the 1940s when uranium was first discovered in the region.

#### 4.1 Woodland Caribou CEA

The CEA framework described above provides the framework upon which the CEA for woodland caribou was conducted. Residual effects resulting from the Project in combination with those from ongoing and reasonably foreseeable projects and activities that were identified (see draft EIS, Section 9.3.7.2) may act cumulatively to potentially affect woodland caribou in the Terrestrial RSA. The key endpoints through which the CEA was considered included the alteration and/or loss of habitat and change in mortality. For reference, for alteration and/or loss of habitat the draft EIS considers existing habitat disturbances due to past and ongoing anthropogenic development, which includes old exploration trails and disturbances associated with line cutting, drilling, and access development.

The woodland caribou population in the region is reported to be stable and their anthropogenic habitat disturbance is currently estimated at 1.5% in the Terrestrial RSA, which is below the 5% threshold of anthropogenic disturbance recommended as a requirement to sustain viable populations (ECCC 2019). The Project will add another 0.4% of anthropogenic disturbance (considering the Project Area of 169.6 ha) adding up to 1.9% of anthropogenic disturbance in the Terrestrial RSA. It is not expected that the cumulative effect of alteration and/or loss of habitat will alter the integrity of woodland caribou habitat within the Terrestrial RSA to the point where it is not sustainable or available to contribute to ecological functions. Therefore, the cumulative effect resulting from the Project's residual effect interacting with residual effects from other projects and activities is predicted to be **not significant**.

## 4.2 How Indigenous Perspectives Influenced the Cumulative Effects Assessment

Cumulative effects assessment is important to Indigenous communities in general because incremental changes to the environment can weaken resource economies, affect important resources such as plants, fish, and wildlife, affect rights-based and cultural activities, and affect both the health of wildlife and humans (Indigenous Centre for Cumulative Effects 2021). Indigenous perspectives can be complementary to the CEA for the Project, and Denison acknowledges the important relationship of the Indigenous Communities of Interest to the lands and waters. The Indigenous Communities of Interest of English River First Nation (ERFN) and the Kineepik Métis Local #9 at Pinehouse (KML) have shared their Indigenous Knowledge on past, present, and predicted cumulative effects through the following sources:

- Wheeler River Project – Summary of Health and Socio-Economic Study Results (ERFN and SVS 2022a);
- Wheeler River Project - Summary of Traditional Knowledge Study Results (ERFN and SVS 2022b);
- Kineepik Valued Ecosystem Components – KML Pre-statement for Denison EIS (KML and NVP 2022); and
- Response to the Environment Impact Assessment For the proposed Ministry of Highways 914 Extension Project (KML and Limnos Environmental 2022).

These perspectives on cumulative effects have been summarized in Section 3.4.8 of draft EIS. Denison and the Communities of Interest agreed on the high value of this contribution being part of the EIS.

Denison recognizes that Indigenous Knowledge systems offer an alternative source of knowledge, often complementary to western science (Eckert et al. 2020). The CEA for the Project followed standard methodology as per provincial (Government of Saskatchewan 2022) and federal guidance (Government of Canada 2019). Among the sources of information to consider, the federal guidance notes the importance of “Aboriginal traditional knowledge, community knowledge and scientific knowledge, or simply an expression of concern regarding potential cumulative effects to a particular VC” (Government of Canada 2019). All sources of information were considered by discipline leads as described in the respective draft EIS sections and in Section 4, Engagement. The CEA for all VCs completed for the Project incorporated, as appropriate, the characterization of activities/events that have shaped the existing environment and continue to influence the VCs used for the EIS.

## 5 Conceptual Caribou Mitigation Plan

Following submission of the draft EIS in October 2022, Denison has met with Saskatchewan Ministry of Environment (SK ENV) staff to develop a framework for future woodland caribou offset. This information has been presented to the provincial and federal review teams as part of the response to federal information requirements in August 2023 as the Conceptual Caribou Mitigation Plan (**Error! Reference source not found.**).

The Conceptual Caribou Mitigation Plan (the Plan), developed proactively by Denison, has a different objective than the draft EIS. The Plan builds on the assessment of potential Project effects and commitments to consider additional mitigation (offset) to account for non-significant residual effects highlighted in the draft EIS. The Plan is expected to be advanced with ongoing consultation with the SK ENV, as SK ENV finalize the caribou range plan for SK1. The EIS is a conservative planning tool, whereas the Plan is a practical, living document designed to define management works associated with caribou. The Plan is not a requirement for EA determination *per se*, but is provided as a guidance document to help Denison proactively describe and inform the development and implementation of appropriate mitigation measures related to caribou and their habitat.

The Plan is an evergreen document. It will be consistent with the management goals of SK ENV for the SK-1 caribou conservation unit and will be developed/refined in consultation with local communities including English River First Nation and Kineepik Métis Local in Pinehouse and regulators. As noted above, the boreal caribou range plan for SK-1 is under development and it is understood that this Plan will be updated as more information becomes available. The conceptual nature of the Plan is in part due to the absence of range plan priorities and reflects Denison's commitment to continue to work with the province to meet the management objectives and management strategies for the SK1 range.

Denison is continuing to work with SK ENV to estimate habitat offset scenarios based on the current Project design which will be refined as the Project advances. A boreal caribou habitat offset calculator is under development by SK ENV and Denison is collaborating with SK ENV to define key scenario attributes. SK ENV will engage with Indigenous communities and nations as the province develops and refines the range management plan for SK1.

## 6 Closing

Denison is confident in the methodology used in the terrestrial assessments and the assumptions used to conduct the woodland caribou assessment were conservative and the assessment followed a precautionary approach. The CEA was conducted in a manner consistent with the requirements of CEAA 2012 and related guidance documents for a Project-specific CEA and appropriately assessed potential cumulative effects for woodland caribou at the RSA and range (SK1) scales. The EIS concluded that the Project could be implemented in consideration of proposed mitigations whereby **both Project-related and cumulative residual effects would be not significant.**

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Kineepik Métis Local (KML) and Northern Village of Pinehouse Lake (NVP). 2022. Response to the Environment Impact Assessment. For the Proposed Ministry of Highways 914 Extension Project. Submitted February 11, 2022.



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## Attachment A: Ya'Thi Néné Lands and Resource Office Comments Related to Woodland Caribou Habitat

Number	Source	Reference to EIS1, appendix, or TSD	Reference to EIS Section	<a href="#">Comment Summary</a> (all original submissions can be found on <a href="#">Canadian Impact Assessment Registry reference: 80171</a> )
401.	<a href="#">YNLR</a> (March 4, 2023)	Section 9.0 Terrestrial Environment Fig 9. 2-6, p. 9-83	Terrestrial Environment	Comment #53, Appendix A: YNLR is concerned about the potential residual and cumulative effects of the extensive seismic network on the soils of the RSA and LSA. Were these and other potential network effects considered in the analyses?
402.	<a href="#">YNLR</a> (March 4, 2023)	Section 9.0 Terrestrial Environment Appendix 9B, p. 60 Also, p. 9-68, Fig 9. 2-9, 9-133, 9-139 and 9-149	Terrestrial Environment	Comment #54 and 55, Appendix A: Appendix 9B of the EIS states that 100% of the LSA and 82% of the RSA are already disturbed by buffered anthropogenic disturbances in the form of exploration lines, exploration trails, and seasonal roads. During the consultation process, residents raised the issue of the high degree of human disturbance and highlighted concerns about the broad network of linear disruptions in numerous places across the EIS. As with the Project soils, YNLR is concerned about the potential residual and cumulative effects of the extensive seismic network on the vegetation and wetlands of the RSA and LSA, particularly from edge effects. Were these and other possible effects of the network considered? If so, how were they included?
403.	<a href="#">YNLR</a> (March 4, 2023)	Section 9.0 Terrestrial Environment, p. 9- 168	Terrestrial Environment	Comment #56, Appendix A: Wilson et al. (2018) recently summarized the home ranges of 25 woodland caribou populations in Canada. The average home range varied 28-fold, from 312 to 8,838 sq. km. The RSA delineated for assessing cumulative effects on caribou (40,174 ha ~ 402 sq.km.) is thus inadequate for this purpose, and the conclusions of project residual and cumulative effects non-significance are highly suspect. The same could be said for other wide-ranging species such as wolverine.

Number	Source	Reference to EIS1, appendix, or TSD	Reference to EIS Section	<a href="#">Comment Summary</a> (all original submissions can be found on <a href="#">Canadian Impact Assessment Registry reference: 80171</a> )
404.	<a href="#">YNLR</a> (March 4, 2023)	Section 9.0 Terrestrial Environment Fig 9. 2-9	Terrestrial Environment	Comment #57, Appendix A: Was the current RSA anthropogenic disturbance estimate (599 ha) inclusive of the many kilometres of existing seismic cut lines? Did the estimate include consideration of the compounding 'edge effects' from these linear disturbances? If not, why not? See previous comments on the very high level of existing human disturbance in the LSA and RSA highlighted in Appendix 9B.
405.	<a href="#">YNLR</a> (March 4, 2023)	Section 9.0 Terrestrial Environment, p. 9- 239	Terrestrial Environment	Comment #58, Appendix A: Again, the direct and indirect effects of the existing seismic disturbance seem not to have been considered in this assessment, particularly because wolverines 'avoid linear infrastructure.' In fact, one can also see that woodland caribou avoid areas of historic seismic disturbance by directly comparing the figures on page 9-139, EIS (vegetation) and 9-202, EIS (caribou sightings). Appendix 9B gives a summary of the impacts of linear disturbances on boreal forest wildlife.
406.	<a href="#">YNLR</a> (March 4, 2023)	Section 9.0 Terrestrial Environment, 9. P- 239	Terrestrial Environment	Comment #59, Appendix A: Buffered disturbance is included in Appendix 9B but appears to have been ignored in the effects assessment. Was the 500m buffering of anthropogenic disturbances also applied to the network of seismic cut lines to account for edge effects? If not, why not?
407.	<a href="#">YNLR</a> (March 4, 2023)	Section 9.0 Terrestrial Environment Table 9.3-23 and p. 9-270	Terrestrial Environment	Comment #60, Appendix A: Is the amount of initial 'available woodland caribou habitat' inclusive of the direct and indirect seismic cutline network effects? If not, why not? Irrespective of this, it appears that the LSA is being written off for woodland caribou for decades to come. See above comments with respect to Appendix 9B.
408.	<a href="#">YNLR</a> (March 4, 2023)	Section 9.0 Terrestrial Environment, p. 9- 275, 9-280, 9-300, Section 11.0 Land and Resource Use,	Terrestrial Environment Land and Resource Use	Comment #61, 62, 82, 83, Appendix A: The EIS correctly highlights the cultural importance of moose and woodland caribou to Indigenous People, which underscores YNLR's concerns regarding the conclusions of the residual and cumulative effects assessments of these species, particularly for caribou. YNLR questions the optimistic conclusions drawn by Denison regarding the ongoing availability of woodland caribou for traditional use. · The buffered direct habitat loss alone eliminates the LSA and RSA

Number	Source	Reference to EIS1, appendix, or TSD	Reference to EIS Section	<a href="#">Comment Summary</a> <a href="#">(all original submissions can be found on Canadian Impact Assessment Registry reference: 80171)</a>
		p. 11- 46 and 11-		<p>for caribou habitation for decades to come (Appendix 9B), so how can it 'sustain the regional woodland caribou population' in any way?</p> <ul style="list-style-type: none"> <li>· The reference to 'proven' mitigation measures is rather vague and requires further explanation.</li> <li>· YNLR is unaware of these proven mitigation measures, other than isolation from human disturbance.</li> </ul> <p>YNLR disagrees with this overall residual effects conclusion for these wildlife VCs, especially in regard to woodland caribou (Appendix 9B), for the following reasons:</p> <p>(i) Comment #64, Appendix A: In addition, the reason why SK1 holds one of the very few sustainable caribou populations despite a high level of forest fire, is because of currently very low levels of human intrusion, which suggests that the provincial and federal approval processes, BMPs, and mitigation measures have not been sufficient in the rest of the species' range throughout the entirety of Canada.</p> <p>(ii) Comment #83, Appendix A: Woodland caribou populations have strongly declined across Canada despite all types of project mitigation, so YNLR doubts that similar mitigation efforts will be effective here. A woodland caribou 'management' plan is not sufficient. YNLR believes that, at a minimum, Denison should commit to an aggressive caribou habitat offset plan before work on the Project begins. In addition, it is unclear what constitutes this proposed mitigation. A caribou management plan is proposed (Section 9), however nothing short of a full caribou habitat offset plan will suffice to sustain the region's population. Offset activities should include the ongoing restoration of the existing seismic lines, among other things. This work is best accomplished in consultation and collaboration with Indigenous People, their communities, and organizations.</p>
409.	<a href="#">YNLR</a> (March 4, 2023)	Section 9.0 Terrestrial Environment,	Terrestrial Environment	<p>Comment #62, 63, 64, 66, 67 and 68, Appendix A: Past and future direct and indirect effects of seismic line clearing appear to have been ignored in this assessment (Appendix 9B). The fact that most caribou sightings occurred away from seismically disturbed areas independent of habitat</p>



Number	Source	Reference to EIS1, appendix, or TSD	Reference to EIS Section	<a href="#">Comment Summary</a> <a href="#">(all original submissions can be found on Canadian Impact Assessment Registry reference: 80171)</a>
		p. 9- 280, 9-287 and 9-302		<p>type supports this observation.</p> <p>YNLR disagrees with this overall residual effects conclusion for these wildlife VCs, especially in regard to woodland caribou (Appendix 9B), for the following reasons:</p> <ul style="list-style-type: none"> <li>· Comment # 63 and 64, Appendix A: The extent of past seismic line cutting is very high for both the LSA and RSA. However, direct and indirect (edge) effects on wildlife, especially woodland caribou, seem to have been overlooked or minimized. Future exploration disturbance should have been estimated and included based on the rate of historic disturbance if nothing else.</li> <li>· Comment #67, Appendix A: Most of these mitigation measures (listed on p. 9-308) are quite superficial and would contribute little to the long-term conservation of wildlife in the RSA and LSA. The proposed caribou management plan needs to be a fully developed Caribou Habitat Offset Plan given the extent of already altered habitat by seismic activities. Also note that this has a high potential for a direct impact on Aboriginal and Treaty rights. More, some Indigenous People will likely take offence at the idea of the company 'facilitating access' to their inherent Treaty Rights. Significant consultation and collaboration with Indigenous People is required.</li> </ul> <p>Comment #69, Appendix A: Concern about the extensive network of seismic cut lines were also raised by Indigenous People at several places in the EIS.</p>
410.	<a href="#">YNLR</a> (March 4, 2023)	Section 9.0 Terrestrial Environment	Terrestrial Environment	Comment #65, Appendix A: Is it not possible to conduct modern mineral exploration without cutting miles and miles of seismic lines across the boreal forest?

Number	Source	Reference to EIS1, appendix, or TSD	Reference to EIS Section	<a href="#">Comment Summary</a> (all original submissions can be found on <a href="#">Canadian Impact Assessment Registry reference: 80171</a> )
411.	<a href="#">YNLR</a> (March 4, 2023)	Section 9.0 Terrestrial Environment	Terrestrial Environment	<p>Comment #68, Appendix A: Section 9.3.9 of the draft EIS indicates that with the implementation of the above (and additional) mitigation measures, the residual effects on the Ungulates, Furbearer, and Woodland Caribou VCs were assessed as follows:</p> <ul style="list-style-type: none"> <li>· Moose. Not significant: the residual effects of alteration and/or loss of available habitat and of change in mortality are not expected to result in a change that will alter habitat integrity to the point where it would not be able to sustain the regional ungulate populations or the integrity of the regional moose population to the point where it could not be sustained.</li> <li>· Furbearers. Not significant: the residual effects of alteration and/or loss of available habitat and of change in mortality are not expected to result in a change that will alter habitat integrity to the point where it would not be able to sustain the regional furbearer populations or the integrity of the regional furbearer populations to the point where they could not be sustained.</li> <li>· Woodland caribou. Not significant: the residual effects of alteration and/or loss of available habitat and of change in mortality are not expected to result in a change that will alter habitat integrity to the point where it would not be able to sustain the regional woodland caribou population or the integrity of the regional woodland caribou population to the point where they could not be sustained.</li> </ul> <p>YNLR believes this summary to be overly optimistic and somewhat inaccurate for the following reasons:</p> <ul style="list-style-type: none"> <li>· The RSA and LSA are too small relative to the home range of woodland caribou to serve as a basis for assessing residual and cumulative effects on the species.</li> <li>· Large portions of the RSA and LSA have been badly degraded by mineral exploration activities (particularly by line-cutting for seismic surveys; Appendix 9B), yet their direct and indirect (edge) impacts seem not to have been considered in the effects assessments. This is puzzling given the known impact that these features have on wildlife, especially caribou, wolverine, other predators, and many avian</li> </ul>

Number	Source	Reference to EIS1, appendix, or TSD	Reference to EIS Section	<a href="#">Comment Summary</a> <a href="#">(all original submissions can be found on Canadian Impact Assessment Registry reference: 80171)</a>
				<p>species. The EIS maps themselves clearly show an avoidance of these seismically-disturbed areas by woodland caribou.</p> <p>YNLR strongly believes that, at a minimum, an aggressive Caribou Habitat Offset Plan should be co-developed before Project work begins, and regular monitoring of the caribou population be conducted throughout the life of the Project.</p>

Number	Source	Reference to EIS1, appendix, or TSD	Reference to EIS Section	<a href="#">Comment Summary</a> <a href="#">(all original submissions can be found on Canadian Impact Assessment Registry reference: 80171)</a>
419	<a href="#">YNLR</a> (March 4, 2023)	Appendix 16-A Summary of Cumulative Effects	Appendix 16-A Summary of Cumulative Effects	<p>Comment #91, Appendix A: There are about three dozen Valued Component/Key Indicators that are assessed for the significance of cumulative effects (effects that remain after mitigation) from the Project. These include air quality, noise, terrain morphology and stability, groundwater quantity and quality, surface water quality and quantity, soil quantity and quality, organic matter, sediment quality, benthic invertebrates, fish and fish habitat, fish health, vegetation abundance, listed plant species, wetlands, moose, furbearers, woodland caribou, raptors, migratory breeding birds, avian species at risk, human health, Indigenous land and resource use, other land and resource use, heritage resources, traditional diet, income of workers, community cohesion, traffic, community infrastructure and services, and economics.</p> <p>As with the summary of the residual effects, <u>the cumulative effects of the Project on all of these VCs/Kis are concluded to be non-significant in the EIS.</u></p> <p>Again, YNLR believes this to be an overly optimistic and statistically unlikely prediction for the same reasons as given above, for example, inadequate spatial boundaries, poorly chosen and grouped VCs and Kis, the apparent omission of the existing linear disturbance network in the effects assessments, and the largely qualitative nature of the assessments and their resultant 'significance.'</p>





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## **Attachment B: Pilot Program: Linear Feature Mitigation Interim Report – Status Update and Preliminary Results**



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## **Attachment C: Conceptual Caribou Mitigation Plan**

**Denison Mines Corporation  
Wheeler River Project**

**Pilot Program: Linear Feature Mitigation  
Interim Report- Status Update and Preliminary Results**

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November 2022  
Omnia Project ID: 2103-01

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Denison Wheeler River Project.

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Table 4. Seedling health assessment results.

## 1 INTRODUCTION

Federal and provincial planning documents and woodland caribou (*Rangifer tarandus caribou*) population assessments have indicated that much of the Saskatchewan woodland caribou population is at risk from landscape-level disturbance. There exist no guidelines for evaluating reclamation requirements or outlining what the criteria for reclamation are. Omnia Ecological Services (Omnia) has been engaged by Denison Mines Corporation (Denison) to continue to support the project application (e.g., assessment of impacts and regional mapping/inventory) with respect to reclamation/offset planning to assist with developing potential woodland habitat reclamation selection and criteria protocol through the use of cost effective and practical functional habitat restoration/mitigation options. If successful, these mitigation techniques could be deployed at a larger scale within the SK Boreal Shield and may assist government in developing mitigation/reclamation criteria.

A pilot project of potential mitigation options to disrupt predator-prey movement patterns on linear features by creating a physical, visual, and/or line-of sight barriers has been deployed at 12 sites within the Wheeler River study area ([Figure 1](#)). Detailed background information and full details of site-specific treatments, including preliminary planning and consultation, can be accessed in Omnia (2022). Also included in that report are preliminary findings from the first five months of monitoring.

The objectives of this interim report are to outline preliminary results gathered from monitoring data thus far (year 1) and outline program follow-up requirements and recommendations for future consideration.

## 2 MONITORING

A site visit was completed in May 2022 as part of the planned bi-annual inspection/data collection with the following objectives:

- Revisit and check the status of all 12 treatment sites.
- Make any repairs or modifications as required.
- Remove and replace covert camera memory cards to collect wildlife use data collected since deployment.
- Replace covert camera batteries to support ongoing monitoring.
- Measure height and assess health status of planted Jack pine seedlings.











### 2.1 Methods

The linear feature mitigation sites were visited from May 24-25, 2022. Photographs were taken at each site and notes were taken on overall conditions of the installation, durability, effect of snow cover/melt, issues encountered, and modifications or repairs conducted. Any signs of wildlife use in the area were also noted (i.e., tracks, pellets). Covert camera cards were replaced and camera setups were adjusted where required to prevent unnecessary false trigger events (such as from burlap flapping in the wind). All camera batteries were replaced. Camera photographs were retrieved and analyzed for wildlife use along the 12 treated linear features (LFs) and six reference/untreated parallel linear features.

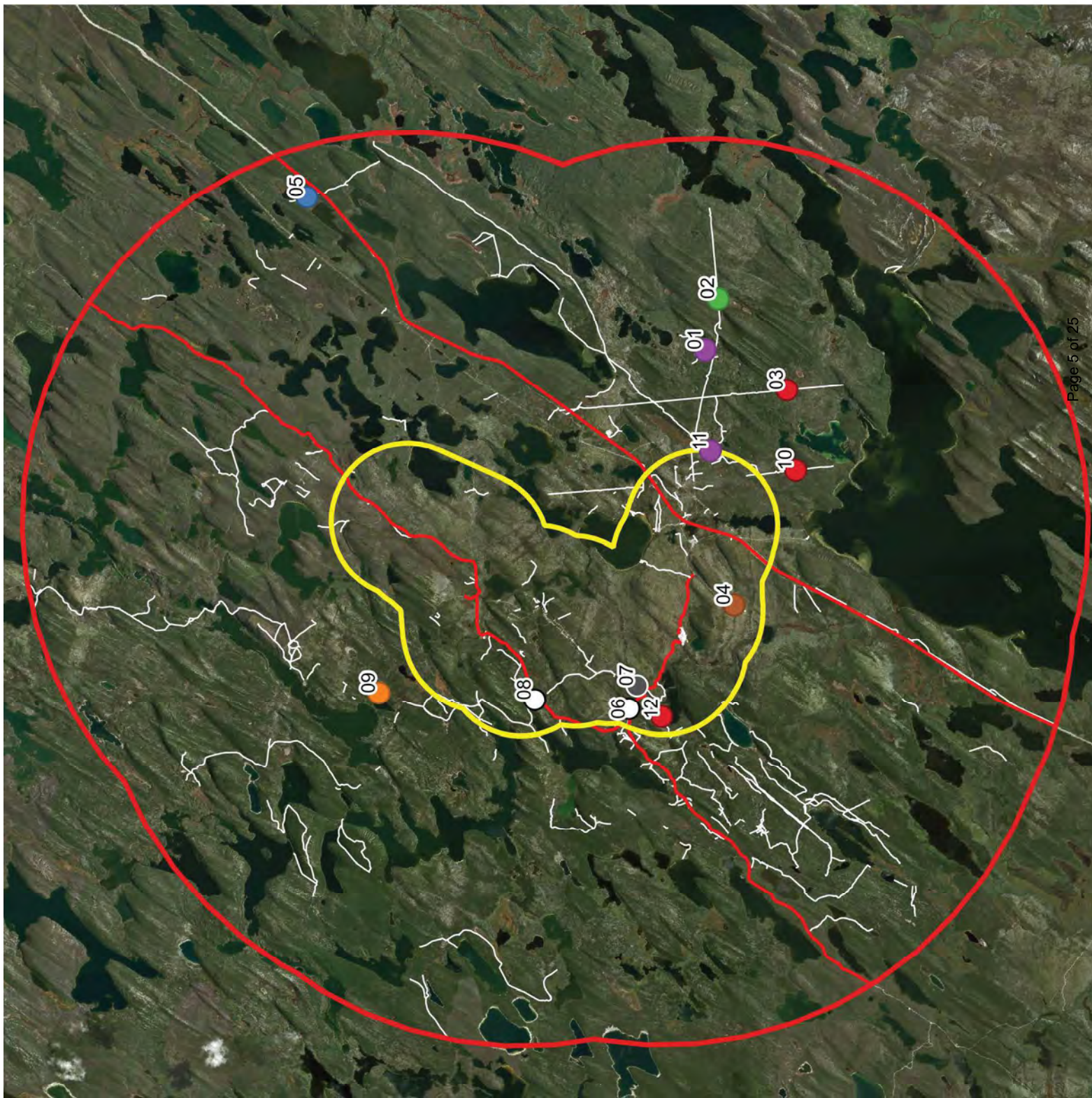
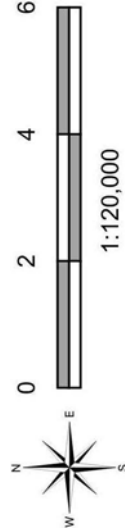


Figure 1. Installed mitigation features for the Denison River Project  
 linear feature reclamation and mitigation treatment plan

Legend

- |   |                           |   |            |
|---|---------------------------|---|------------|
|  | Local Study Area (LSA)    |  | Road       |
|  | Regional Study Area (RSA) |  | Rough Road |
|   | Treatment Type            |  | Trail      |
- 
- |   |   |
|---|---|
|  | Burlap fence  |
|  | Coarse Woody Debris + Planting                      |
|  | Coarse Woody Debris + Planting + Burlap Fence       |
|  | Tree Tip / Wood Structure                           |
|  | Tree Tip / Wood Structure + Planting                |
|  | Tree Tip / Wood Structure + Planting + Burlap Fence |
|  | Trench Pile + Planting                              |
|  | Trench Pile + Planting + Burlap Fence               |

ROC 1084





For treated and untreated LFs, each wildlife trigger event was characterized as a “use” event if the animal appeared to be travelling on the line and/or displaying non-avoidance behavior, such as approaching/interacting with the burlap or other treatment features. Behavior such as crossing the LF, traveling in the adjacent forest, or paralleling the LF was characterized as “non-use” of the LF. Cameras were programmed to take five photographs per trigger event, often allowing for movement trajectory to be determined. However, if field of view was limited, body language and movement cues of the animals were used to best determine appropriate categorization, such as angle of head/body, no assumption of sharp turns, etc. Photograph analysis findings were compared to results gathered from multi-year baseline linear feature camera monitoring across the project area, and between treated and reference sites. Effects of treatments on wildlife use of LFs was then analyzed across all species of interest and between individual species types.

Each seedling that was planted when treatments were installed in July 2021 was measured for height, and a relative health score was assigned to each seedling: 1=healthy, 2=average, 3=poor 4=dead/missing. Evidence of browsing events by wildlife were also recorded.

## 2.2 Results

### 2.2.1 Treatment Visits

[Table 1](#) summarizes the overall status of the treatment types, wildlife sign observations and modifications completed. Coarse woody debris (CWD) treatments maintained reasonable coverage and withstood snow pack/snowmelt ([Photograph 1](#)). Tree hinging/structures treatments were holding up very well and only a few structures/tree hinges had fallen over and needed reinforcing ([Photograph 2](#)). Needles on the trees that were hinged were yellowing but remained intact ([Photograph 3](#)). Trench and pile treatments were holding up very well and didn't appear compressed following the winter snow ([Photographs 4](#)). Burlap installations, both on their own and when combined with other treatment types, required minimal repairs ([Photograph 5](#)).

Repairs consisted of:

- Replacement of ripped/ deteriorating burlap panels
- Replacing wooden lath ripped off by a bear (Site 10, [Photograph 6](#))
- Adding screws and staples to reinforce, where required

### 2.2.2 Wildlife Photograph Analysis

#### *Overall*

Photographs were analyzed from 18 different cameras totaling 4,861 camera days. One hundred-ninety-four (194) detections were recorded of 13 different species, averaging four detections per 100 cameras nights. The most commonly detected species from all cameras, treatment and reference, was snowshoe hare with 56 detections, followed by woodland caribou with 44 detections, and black bear with 25 detections ([Table 2](#)). [Table 2](#) summarizes the detections rates of species of interest (caribou, moose, black bear, wolf) by treatment type / reference linear feature. Detection rates of species of interest and human (ATV) use were compared with baseline covert camera results from multi-year linear feature monitoring conducted in the Denison Wheeler

River study area ([Table 2a](#)). Results were separated into desired non-use and use of linear feature type (treated versus untreated monitoring/reference trails). The results for trails (approximately 5m wide) were included for direct comparison and data from hand-cut lines and roads were excluded. A similar comparison was completed for treatments where no burlap was present, either on its own or in combination with other blocking techniques ([Table 2b](#)). This was to assess for trends without the potential wildlife attractant effects of the burlap. When treatments including burlap were included in the analysis, detection rates of all species of interest on treated lines are less than those of multi-year linear feature monitoring in the area. Bear use of treated lines was reduced with 61% compared with untreated lines, moose use was reduced with a 92%, and caribou use was reduced with 94% ([Table 2a](#)). No wolves were detected using treated lines. Overall use of treated lines by species of interest was reduced by approximately 85% when compared to monitoring rates. When installations including burlap are excluded from analysis, the reduction in detection rates along the treated sites are even more pronounced. No bears or wolves were observed using treated lines, while only a single caribou and moose were detected using treated lines.

#### *Treatment Sites*

[Figures 2 and 3](#) highlight the relative effectiveness of the individual treatment types on wildlife species of interest detections and their use of the treated linear features. Non-use of the treated line by wildlife via travel in the adjacent forest, crossing, or paralleling the line was the desired effect and was therefore rated as positive. Use of a treated LF via traveling down the line/interacting with the treatment features was an undesired effect and was therefore rated as negative.

[Figure 2](#) shows the results of the treatments for all species of interest combined. CWD treatment sites had the most wildlife detections (20) of three species, (bear, caribou and moose) and all interactions were positive (non-use of the line). Tree hinging/structures had ten detections of bear and caribou, 92% of these interactions were rated as positive. Trench and pile treatments had three moose detections; two thirds positive. Trench and pile + burlap had a split response between bears (all use) and moose (all non-use). CWD + burlap and burlap only had all negative interactions.

[Figure 3](#) shows the results of the treatments for each species of interest. Caribou showed positive interactions (avoidance) with CWD and tree hinging/structures (100% and 83% of detections, respectively) and a negative interaction with burlap (100% of detections). Moose response to CWD and trench and pile + burlap was 100% positive, and was two-thirds positively associated with trench and pile. Black bears responded positively to CWD and tree hinging/structures, and negatively to CWD + burlap, trench and pile + burlap, and burlap only. Wolf responded negatively to burlap.



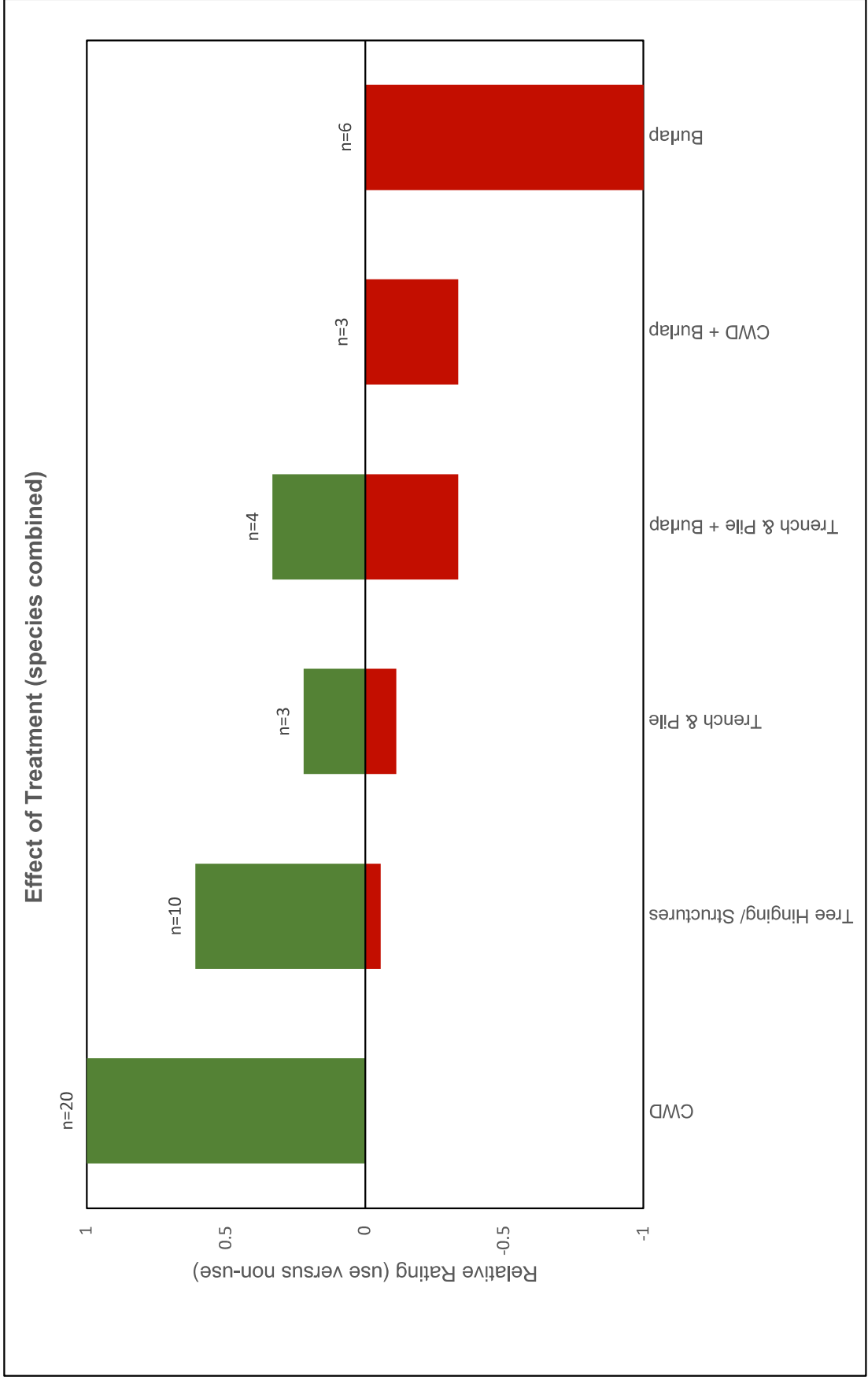


Figure 2. Wildlife detections by treatment type, all species combined (caribou, moose, black bear and wolf). Green/positive indicates desired avoidance of the treated LF; red/negative indicates undesired use of treated LF.

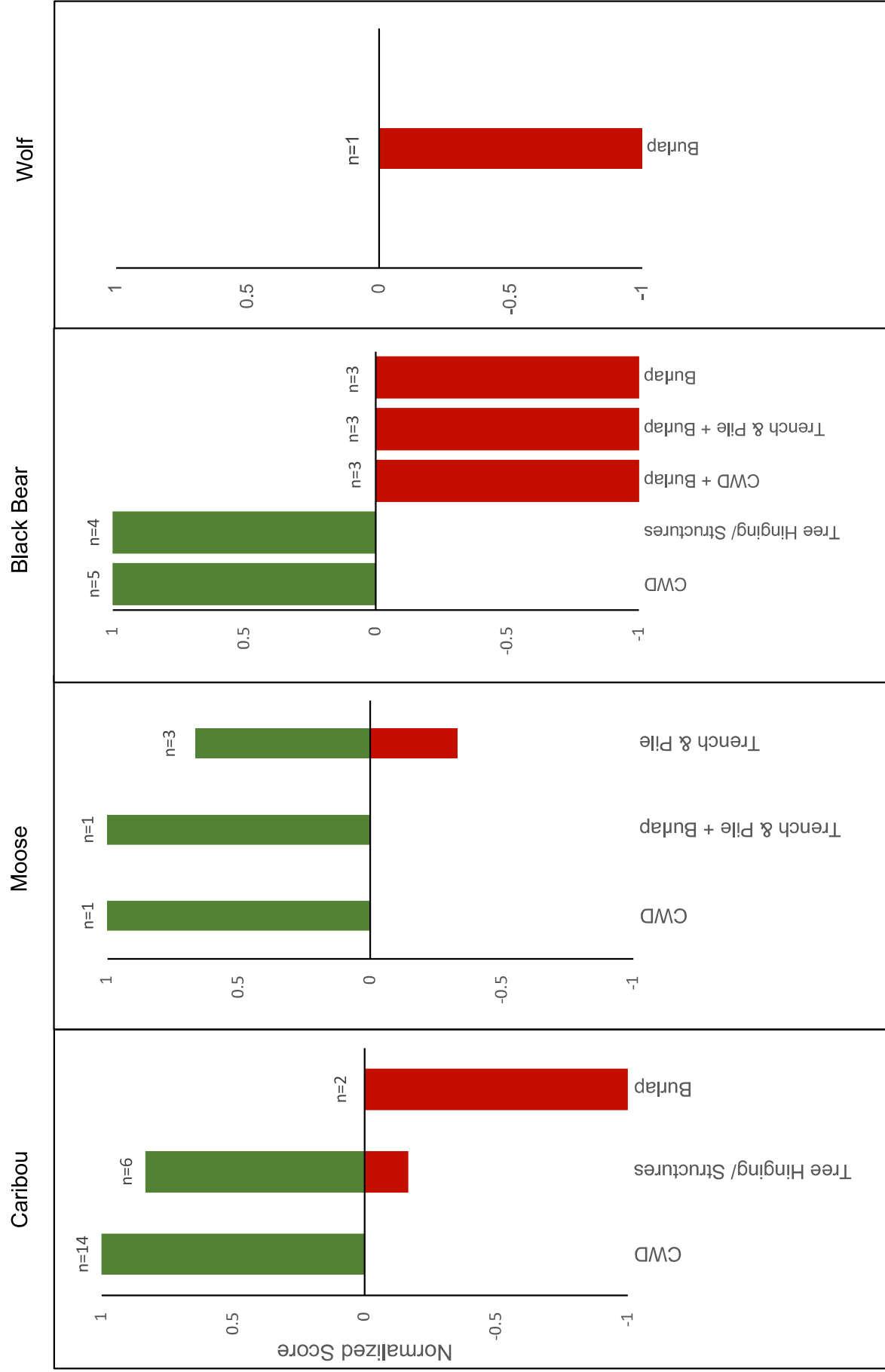


Figure 3. Caribou, moose, black bear and wolf detections by treatment type. Green/positive indicates desired avoidance of the treated LF; red/negative indicates undesired use of treated LF.

### 2.2.3 Seedling Health Assessment

A total of 476 seedlings were counted and measured, out of the initial 500 planted. Seedling height averaged 15cm (range 12-18cm) when planted and average height when measured in May 2022 was 18.8 cm ([Table 4.](#)). Average health status was 1.8. [Photograph 7](#) illustrates representative examples of each health status, ranging from 1-4, healthy, average, poor, and dead, respectively. Mortality/loss averaged 4.8%.

## 3 SUMMARY PRELIMINARY CONCLUSIONS – Year 1

- Detection rates of all species of interest on treated lines (including burlap) are less than those of multi-year linear feature monitoring in the area (bears 61% reduction, moose 92% reduction and caribou 94% reduction; no wolves). When burlap is removed from analysis, the frequency of detection on treated lines is further reduced (no bears or wolves; only 1 caribou and 1 moose)
- CWD, tree hinging/structures, and trench & pile treatments elicited all/mostly positive avoidance responses from species of interest.
- Burlap, when used alone or in combination with other treatments, elicited the most negative responses from species of interest. Although preliminary, early results indicate that burlap may act as an unwanted attractant for curious wildlife or is not perceived as a barrier to species movement ([Photograph 8](#)).
- Burlap remains the most labor-intensive treatment in terms of maintenance and repairs required.
- Overall planted seedling health was strong and growth progression is promising.

## 4 NEXT STEPS

- Continuation of multi-annual site visits to monitor the status of treatment types, make repairs or adjustments as necessary.
- Continuation of multi-annual inspection/service and data collection of covert cameras and analysis of covert camera photographs.
- Assess potential impacts of a 2022 forest fire on several treatment locations/cameras and determine suitability for continued monitoring and/or redeployment.
- Analysis of potential snow depth/weather effects on wildlife activity over time are anticipated as more winter data is collected.
- Evaluate seedling status once again in 2023 to ensure status.
- Verify tree-hinge/structure counts to ensure replicability at other sites.
- Quantify coarse woody debris (CWD) stem counts and volume estimates to ensure replicability at other sites.
- Monitoring is ongoing and an increased monitoring period, and associated sample size, will facilitate further analysis, including potential use of statistics.

## TABLES

**Table 1. Summary of treatment status, observations, and modifications.**

<b>Treatment</b>	<b># Linear Features</b>	<b>Overall</b>	<b>Wildlife Sign</b>	<b>Modifications</b>
CWD	2	Holding up well after snow melt, minor compression	Faint caribou tracks at start of treatment, appear to deflect away from treatment; other caribou tracks on edge	none
CWD + Burlap	1	CWD holding up well, burlap corners lifted	none	reinforced burlap
Tree Hinging/ Structures	3	In great shape; needles on tree hinges yellowing but intact	none	Lifted/ reinforced a few structures/hinges that had fallen
Trench & Pile	2	Holding up very well, no compression	moose tracks avoid treatment and stay on parallel trail	none
Trench & Pile + Burlap	1	Trenches in good shape, burlap had a few holes	none	replaced 2 burlap panels
Burlap	3	Repairs made in December 2021 held up well, minor repairs needed	none	reinforced stakes pulled off by a bear, added more screws/ fixed burlap holes where needed



**Table 2. Wildlife detection results by treatment type/ reference.**

Treatment	# Linear Features	Camera Days	Detections/ 100 Camera Nights												ATV	Comments
			Bear			Caribou			Wolf			Moose				
			Non-Use	Use	Total	Non-Use	Use	Total	Non-Use	Use	Total	Non-Use	Use	Total		
CWD	2	613	0.82	0	0.82	2.28	0	2.28	0	0	0	0.16	0	0.16	0	-
CWD + Burlap	1	306	0	0.98	2.27	0	0	0	0	0	0	0	0	0	0	-
Tree Hinging/ Structures	3	745	0.54	0	0.54	0.67	0.13	0.81	0	0	0	0	0	0	0	-
Trench & Pile	2	610	0	0	0	0	0	0	0	0	0	0.33	0.16	0.49	0	-
Trench & Pile + Burlap	1	305	0	0.98	0.98	0	0	0	0	0	0	0.33	0	0.33	0	-
Burlap	3	622	0	0.48	0.48	0	0.32	0.32	0	0.16	0.16	0	0	0	0	-
TOTAL Treatments	12	3201	0.28	0.28	0.56	0.59	0.09	0.69	0	0.03	0.03	0.12	0.03	0.16	0	ROC 100
TOTAL Reference	6	1660	0.24	0.18	0.42	0.60	0.72	1.33	0	0.18	0.18	0	0.12	0.12	1.02	removed site 6 reference camera Dec2021

**Table 3a. Comparison of caribou mitigation trial covert camera wildlife detections with baseline linear feature wildlife use inventory results.**

Denison Program	Associated Feature	Total Camera Days	Bear		Caribou		Wolf		Moose		Species of Interest (bear, caribou wolf, moose)		All Animals*		ATV	
			Total	/100 cam days	Total	/100 cam days	Total	/100 cam days	Total	/100 cam days	Total	/100 cam days	Total	/100 cam days	Total	/100 cam days
Caribou Mitigation Trial	Treatment- Non-Use	3201	9	0.28	19	0.59	1	0.03	4	0.12	33	1.03	89	2.78	0	0.00
	Treatment- Use		9	0.28	3	0.09	0	0.00	1	0.03	13	0.41	39	1.22	0	0.00
Covert Camera Monitoring 2019-2021 + Reference Cameras	Trail- Use	6115	44	0.72	95	1.55	18	0.29	22	0.36	179	2.93	509	8.32	122	2.00

\*includes mesocarnivores, small mammals, hares, birds, etc

ROC 1084

**Table 3b. Comparison of caribou mitigation trial covert camera wildlife detections with linear feature monitoring results, all burlap installations excluded.**

Denison Program	Associated Feature	Total Camera Days	Bear		Caribou		Wolf		Moose		Species of Interest (bear, caribou wolf, moose)		All Animals*		ATV	
			Total	/100 cam days	Total	/100 cam days	Total	/100 cam days	Total	/100 cam days	Total	/100 cam days	Total	/100 cam days	Total	/100 cam days
Caribou Mitigation Trial	Treatment- Non-Use	1837	9	0.49	19	1.03	1	0.05	3	0.22	32	1.74	83	4.52	0	0.00
	Treatment- Use		0	0.00	1	0.05	0	0.00	1	0.05	2	0.11	19	1.03	0	0.00
Covert Camera Monitoring 2019-2021 + Reference Cameras	Trail- Use	6115	44	0.72	95	1.55	18	0.29	22	0.36	179	2.93	509	8.32	122	2.00

\*includes mesocarnivores, small mammals, hares, birds, etc.

**Table 4. Seedling health assessment results.**

Plot ID	Treatment	# Planted July 2021	# Seedlings May 2022	Average Height (cm)	Average Status <sup>a</sup>	% browsed	% Missing / Dead	Comments
1	CWD	65	61	19.9	1.5	36.1	6.2	
2	Tree Hinging/Structures	70	67	12.3	2.4	97.0	4.3	
4	CWD + Burlap	65	62	17.9	1.9	14.5	4.6	
6	Trench & Pile	60	57	22.2	1.54	33.3	5.0	
7	Trench & Pile + Burlap	60	60	21	1.2	1.7	0.0	ROC 1084
8	Trench & Pile	60	59	22.3	1.3	32.2	1.7	
9	Tree Hinging/Structures	60	53	12.7	2.2	88.7	11.7	lost ~5 due to burlap log being cut down and landing on seedlings
11	CWD	60	57	21.8	2	75.4	5.0	
<b>Total / Average</b>		<b>500</b>	<b>476</b>	<b>18.8</b>	<b>1.8</b>	<b>47.4</b>	<b>4.8</b>	

a: 1= healthy, 2=average, 3=poor, 4=dead

## REFERENCES

Omnia Ecological Services. 2022. Linear Feature Mitigation Trial. Project Update Report. Prepared for Denison Mines Corporation. 58pp.

## FIELD PROGRAM PHOTOGRAPHS





Photograph 1. Status of CWD treatment May 2022.





Photograph 2. Status of tree hinge/structures treatment May 2022.





Photograph 3. May 2022 status of needles on tree that was hinged.





Photograph 4. Status of trench & pile treatment May 2022.





Photograph 5. Burlap repairs May 2022, before and after.





Photograph 6. Wooden lath removed by bear.





Photograph 7. Seedling health assessment examples 1-4, left to right, respectively.





Photograph 8. Burlap challenges with wildlife.





# Denison Mines

*Powering*  
**PEOPLE, PARTNERSHIPS  
AND PASSION**



# Denison Mines Corp.

## Conceptual Caribou Mitigation Plan

**Version 1**

**June 2023**

### Revision History

Version	Date	Description of Revision
1	June 30, 2023	Conceptual plan to support provincial and federal review of the draft environmental impact statement

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## Acronyms and Abbreviations

Term	Definition
Anthropogenic	Caused or produced by humans
BSCs	biological soil crusts
Boreal Caribou	The boreal ecotype of woodland caribou occurs within the boreal forest of Canada. These non-migratory caribou form small aggregations throughout the year and disperse for solitary calving.
Committee on the Status of Endangered Wildlife in Canada (COSEWIC)	A committee made up of experts from academic, government and non-government organizations that assess the conservation status of wildlife species that may be at risk of extinction in Canada.
Critical Habitat	The habitat that is necessary for the survival of a listed wildlife species and is identified as the species critical habitat in the recovery strategy or action plans for the species.
DERT Project	Developing Eco-Restoration Together Project
Disturbed habitat (per ECCC 2020)	Habitat showing: i) anthropogenic disturbance visible on Landsat at a scale of 1:50,000, including habitat within a 500 m buffer of the anthropogenic disturbance; and/or ii) fire disturbance in the last 40 years, as identified in data from each provincial and territorial jurisdiction (without buffer).
ECCC	Environment and Climate Change Canada
EA	environmental assessment
EIS	environmental impact statement
EMS	environmental management system
ENV	Saskatchewan Ministry of Environment
ha	hectare
Local Populations (ECCC 2020)	Group of boreal caribou occupying a defined area distinguished spatially from areas occupied by other groups of boreal caribou. Local population dynamics are driven primarily by local factors affecting birth and death rates, rather than immigration or emigration among groups. In this recovery strategy, “local population” refers to a group of boreal caribou occupying any of the three types of boreal caribou ranges (i.e., conservation unit, improved conservation unit, local population unit).



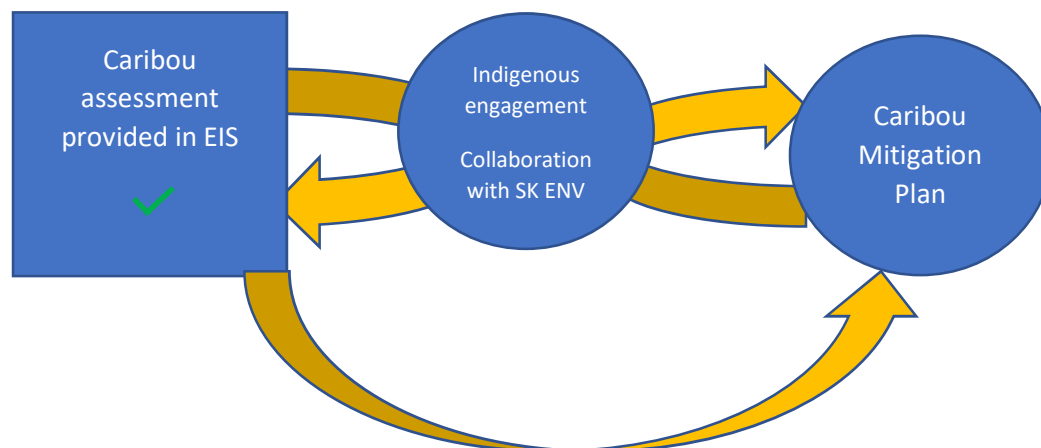
Plan	Conceptual Caribou Mitigation Plan
Project	Wheeler River Project
Range (per ECCC 2020)	<p>The geographic area occupied by a group of individuals that are subject to similar factors affecting their demography and used to satisfy their life history processes (e.g., calving, rutting, wintering) over a defined time frame.</p> <p>Environment and Climate Change Canada (2011) identified three types of boreal caribou ranges categorized based on the degree of certainty in the delineated range boundaries (i.e., conservation unit, improved conservation unit, local population unit).</p>
Recovery strategy	A planning document that identifies what needs to be done to stop or reverse the decline of a species.
SARA	Species at Risk Act
Self-sustaining local population (ECCC 2020)	A local population of boreal caribou that on average demonstrates stable or positive population growth over the short-term ( $\leq 20$ years) and is large enough to withstand stochastic events and persist over the long-term ( $\geq 50$ years), without the need for ongoing active management intervention.
Threatened species	A wildlife species that is likely to become endangered if nothing is done to reverse the factors leading to its extirpation or extinction.
Undisturbed habitat (per ECCC 2020)	Habitat not showing any: i) anthropogenic disturbance visible on Landsat at a scale of 1:50,000, including habitat within a 500 m buffer of the anthropogenic disturbance; and/or ii) fire disturbance in the last 40 years, as identified in data from each provincial and territorial jurisdiction (without buffer). Disturbance within the 500 m buffer would result in a reduction of the undisturbed habitat.

# 1 Introduction

The Wheeler River Project (the Project) environmental impact statement (EIS) evaluates and assesses potential Project-related effects on the Boreal population of woodland caribou (*Rangifer tarandus caribou*; referred to herein as caribou or boreal caribou) following standard environmental assessment (EA) methodology. The assessment of potential effects considered both direct (i.e., habitat loss) and indirect effects (i.e., habitat alteration) on caribou and their habitat, while assuming that caribou were present year-round and during all of their life stages (i.e., calving, rearing, mating, over wintering). In this way, the EIS took a precautionary or conservative approach to understanding/addressing the likely residual effects (i.e., effects remaining after mitigation measures were considered) of the Project on caribou and their habitat and is using this approach as a planning tool to inform/support future Project-related regulatory approvals processes and follow-up monitoring. The EIS has demonstrated that the Project, as proposed and assessed, is predicted to minimize the potential for environmental adverse effects on caribou and their habitat before any Project specific construction occurs. The conclusions of the assessment predicted that the likely residual effects of the Project on caribou were not significant.

This Conceptual Caribou Mitigation Plan (the Plan), developed proactively by Denison, has a different objective than the EIS. The Plan builds on the assessment of potential Project effects and commitments to mitigate such effects made in the EIS and is expected to be advanced with ongoing consultation with the Saskatchewan Ministry of Environment (ENV), as ENV finalize the caribou range plan for SK1. The EIS is a conservative planning tool, whereas the Plan is a practical, living document designed to define management works associated with caribou. The Plan is not a requirement for EA determination but is provided as a guidance document to help Denison proactively describe and inform the development and implementation of appropriate mitigation measures related to caribou and their habitat.

The Plan is an evergreen document. It will be consistent with the management goals of ENV for the SK-1 caribou conservation unit, and will be developed/refined in consultation with local communities including English River First Nation and Kineepik Métis Local in Pinehouse and regulators (e.g., ENV). As noted above, the boreal caribou range plan for SK-1 is under development and it is understood that this Plan will be updated as more information becomes available. The conceptual nature of the Plan is in part due to the absence of range plan priorities and reflects Denison's commitment to continue to work with the province to meet the management objectives and management strategies for the SK1 range.



## 2 Guidance and Regulatory Framework

A brief review highlighting federal and provincial considerations of boreal caribou is provided below for reference.

### 2.1 Federal

Boreal caribou have been designated as *threatened* under the federal *Species at Risk Act* (SARA). Environment and Climate Change Canada (ECCC) released amended recovery strategy for woodland caribou in 2020 (ECCC 2020). A recovery strategy is a planning document that identifies what should be done to stop or reverse the decline of a species.

The Project is located in the Boreal Shield West ecoregion of the Boreal Shield ecozone. The Boreal Shield West ecoregion stretches from Alberta to Ontario (Figure 2-1).



**Figure 2-1: Boreal Caribou Distribution Across Ecozones and Ecoregions in Canada (source: ECCC 2020)**

The SK1 range comprises more than 18,000,000 hectares (ha) and is characterized by high fire disturbance and low anthropogenic disturbance (ECCC 2020). The likelihood of caribou self-sustainability in the boreal shield range in SK1 is “likely” (ECCC 2020). For SK1, the amended recovery strategy (ECCC 2020) identifies 40% undisturbed habitat in the range as the disturbance management threshold, which provides a measurable probability (71%) for the local population to be self-sustaining. This threshold is considered a minimum threshold because at 40% undisturbed habitat there remains a risk (29%) that the SK1 local population cannot be self-sustaining. Disturbed habitat (ECCC 2020) is habitat showing: i) anthropogenic disturbance visible on Landsat at a scale of 1:50,000, including habitat within a 500 m buffer of the

anthropogenic disturbance; and/or ii) fire disturbance in the last 40 years, as identified in data from each provincial and territorial jurisdiction (without buffer). Undisturbed habitat (ECCC 2020) is habitat not showing any: i) anthropogenic disturbance visible on Landsat at a scale of 1:50,000, including habitat within a 500 m buffer of the anthropogenic disturbance; and/or ii) fire disturbance in the last 40 years, as identified in data from each provincial and territorial jurisdiction (without buffer). Disturbance within the 500 m buffer would result in a reduction of the undisturbed habitat.

Studies (e.g., McLoughlin et al. 2019) indicate that the SK1 local caribou population is likely self-sustaining at current levels of disturbance (60% total disturbance), with a 71% probability of persistence. Environment and Climate Change Canada's analyses also indicate that the SK1 local population is sensitive to small increases anthropogenic disturbance and sensitive to small decreases in adult survival. For these reasons, a higher probability of persistence was selected for critical habitat identification in SK1 (71%) than was selected for the other 50 ranges across Canada (60%) (ECCC 2019).

The precise location of the 40% undisturbed habitat within the range is expected to vary over time. The habitat within the SK1 range should exist in an appropriate spatial configuration such that boreal caribou can move throughout the range and access required habitat when needed. The key to this habitat delineation is achieving and maintaining an overall, ongoing range condition that allows for the dynamic habitat supply system, containing the biophysical attributes upon which caribou depend, to remain sustainable. It is this dynamic habitat supply system within the SK1 range that is the habitat condition considered to be necessary for the caribou.

## 2.2 Provincial

The responsibility for woodland caribou management lies with the Province of Saskatchewan. Broadly, the province is responsible for developing range plans or management plans which build on the federal recovery strategy by setting goals and objectives for maintaining sustainable population levels.

The Saskatchewan Conservation Data Centre (SK-CDC) is responsible for evaluating and assigning a conservation rank to each taxon, resident or transient, found in the province. Woodland caribou's subnational or S-rank conservation rank is S3. This ranking indicates that, provincially, the species is vulnerable/rare to uncommon which is associated with a moderate risk of extinction or extirpation due to a restricted range, relatively few populations, recent and widespread declines, threats, or other factors. Currently, the caribou population in SK-1 is stable (ENV 2023) and the range plan is under development. Engagement is a key component of the range plan process and will be completed with representatives from First Nation, Métis, industry, non-governmental organizations, and communities.

The provincial goal is to sustain and enhance woodland caribou populations, and maintain the ecosystems they require, throughout their current range (ENV 2013). Through the woodland caribou range assessment and range planning program, the province is:

- Gaining a better understanding of woodland caribou ecology;
- Working toward meeting objectives identified in provincial and federal strategies; and
- Improving how the province manages the species and related habitat.

The province's woodland caribou range assessment and range planning program incorporates two key components:



- Woodland caribou range assessment, which enhances the understanding of woodland caribou populations and their interactions with the environment; and
- Woodland caribou range planning, which provides a framework, strategies and objectives that allow for better decisions involving habitat management and self-sustaining caribou populations.

Although the management objectives and management strategies for caribou in SK1 are not yet defined, Denison is committed to working with ENV as the range plan is developed. The Plan will be updated as the Project advances so that it aligns with the conservation objectives as determined by the province as the primary steward of caribou in the province.

### 3 SK 1 Caribou Population – Background Information

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Background information concerning the condition of the SK 1 caribou population is provided below.

#### 3.1 Population Trends

The SK1 Boreal Shield management unit contains high-quality conifer-dominated caribou habitat with greater than 40-year-old stands of jack pine and black spruce forests suitable for lichen colonization, black spruce swamps, and open muskegs supporting relatively high densities of caribou, at 36.9 caribou/1,000 km<sup>2</sup> or approximately 4,000 caribou across the SK1 Boreal Shield Woodland Caribou Management Unit (McLoughlin et al. 2019).

Research has shown that up to 70% of the year-round diet of caribou may consist of ground and arboreal lichens. If the quantity of available lichen forage is low, caribou can exist without relying entirely on lichens (McLoughlin et al. 2019). Due to their physiology, lichens are resilient to periods of drought and cold temperatures, but because of their slow growth rate, exhibit a slow recovery time after depletion and fire events. In the SK1 range, McLoughlin et al. (2019) found that stand types with the highest potential for adequate lichen biomass for caribou are jack pine and poorly drained black spruce sites.

McLoughlin et al. (2019) observed that, from 2014 to 2018, the caribou population exhibited a high average adult female survival rate and moderate recruitment (0.192 calves per cow in March), ranging from a low of 0.134 calves/cow in March 2016 to 0.244 calves/cow in March 2018. These demographic parameters led the authors to assess the SK1 Boreal Shield caribou population as being stable at the time of their study (McLoughlin et al. 2019).

While calving areas have not been documented within the SK1 range, it is recognized that caribou may use open fen and treed bog habitat types for calving during the spring/summer period. In Saskatchewan, caribou habitat used during the calving season in the SK2 range demonstrated a strong selection for treed muskegs, but avoidance of jack pine, mixed hardwood stands, and roads (Dyke 2008).

Neufeld et al. (2021) summarized results from aerial surveys over a period of eight years in an 87,193 km<sup>2</sup> study area in the Athabasca Plain and Churchill River Upland ecoregions in the north, that are inclusive of the Terrestrial RSAs that were used in the EIS. During 11 of 16 aerial caribou surveys conducted between 2008 and 2015, woodland caribou were detected in the surveyed areas. The average density of the 16 surveys was estimated at 36.9 caribou/1,000 km<sup>2</sup> (95% CI = 26.7 to 47.2 caribou/1,000 km<sup>2</sup>). Across the Neufeld et al. (2021) study area and all years, estimated caribou densities were higher in comparison to averages reported for most other boreal woodland caribou ranges in Canada (i.e., caribou density reported in other areas ranged 4.3 to 18.7/1,000 km<sup>2</sup>) indicating that caribou can tolerate natural disturbance. One exception to the relatively high caribou densities in northern Saskatchewan was noted: the 2,285 km aerial the Millennium Project in March 2014, 10 km west of the Terrestrial RSA, resulted in lower woodland caribou densities at 5 caribou/1,000 km<sup>2</sup> (Neufeld et al. 2021).

Eight of the sixteen caribou surveys reported the ratios of male to female and calf to female in their results with the average male:female ratio calculated at 0.571 (95% CI = 0.444 to 0.699) and calf:female at 0.195 (0.158 to 0.232). Again, the 2014 Millennium survey reported a different male:female ratio, outside the reported range (1.6), concurring with the reported low caribou densities.

## 3.2 Predation

In addition to relatively low predator densities in their study area, McLoughlin et al. (2019) found some spatial separation between caribou and wolves. Caribou did not seem to avoid existing linear features (such as roads, trails, and transmission lines) in the area, while wolves established their territories away from linear features. Unlike caribou, who preferred mature conifer stands, wolves selected for wetlands and patches of deciduous-mixed forest, avoiding stands of mature conifers. Other prey species, such as moose, also occurred at relatively low densities (i.e., 45.7 moose/1,000 km<sup>2</sup>) (McLoughlin et al. 2019).

McLoughlin et al. (2019) observed that mortality of adult caribou occurred mostly during the snow-free season and only 1 of 94 collared caribou was harvested by a hunter during the four years of the study.

While predation is believed to be a key limiting factor for woodland caribou (Bergerud 1974; Stuart-Smith et al. 1997, DeMars et al. 2011 from ECCC 2020), Neufeld et al. (2021) suggested that habitat- or disturbance-mediated apparent competition only plays a minor role in the Saskatchewan woodland caribou population. Habitat- or disturbance-mediated apparent competition occurs when natural (e.g., forest fires) and anthropogenic (e.g., human development or activities) disturbances increase the abundance of other ungulates, which in turn may increase predator densities, which then increases predation risk to caribou. Neufeld et al. (2021) concluded that Northern Shield and Taiga ecoregions are of low productivity where caribou may compete with only one ungulate species (i.e., moose) and therefore, caribou and wolf dynamics do not follow general habitat- or disturbance-mediated apparent competition models.

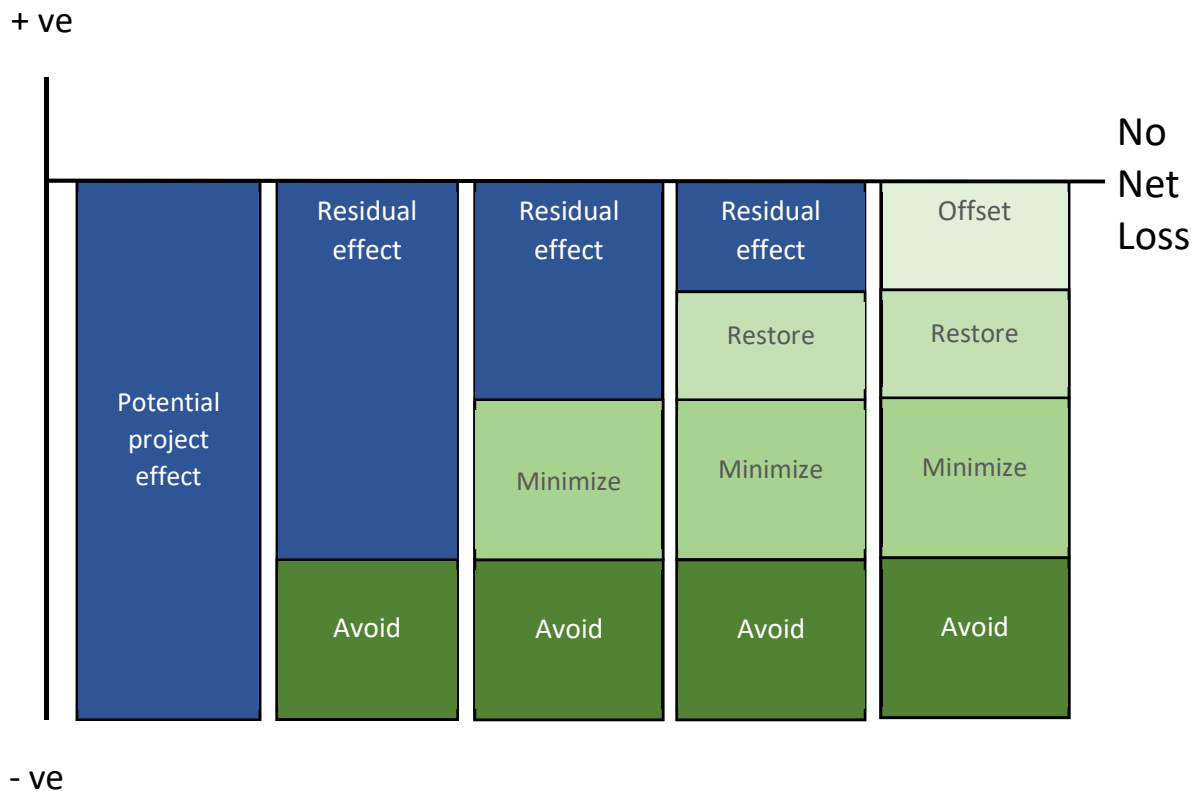
## 3.3 Harvest

Indigenous peoples in Saskatchewan have an inherent right to harvest woodland caribou for subsistence purposes (ENV 2013). No other harvest of woodland caribou is currently permitted. Under provincial and federal recovery planning and effective species management, self-sustaining caribou populations will support long-term subsistence use of the species and protect treaty rights. Subsistence harvest levels are assumed to be low but actual numbers are not available because most communities or Indigenous groups are not collecting and/or publishing this information.

## 4 No Net Loss and Mitigation Hierarchy

A generic biodiversity mitigation hierarchy (OECD 2016) to achieve no net loss is provided in Figure 4-1. As shown in the hierarchy, an offset can be used to achieve no net loss if residual effects remain following efforts to avoid, minimize, and restore potential project effects. This generic hierarchy is generally consistent with the approach of ENV to manage effects on caribou and their habitat.

The balance of Section 4 of this Plan outlines Denison's approach to avoid, minimize, and restore caribou habitat per commitments made in the draft EIS associated with the Wheeler River Project.



**Figure 4-1: Generic No Net Loss and Mitigation Hierarchy (modified from OECD 2016)**

### 4.1 Avoid

Potential adverse effects on the caribou have been avoided to the extent possible through Project design, including:

- Selection of in-situ recovery (ISR) mining avoids some direct and indirect effects compared to conventional underground or open-pit mining methods. ISR mining avoids the need for spatially expansive infrastructure such as waste rock piles and tailings management facilities reducing the Project footprint (i.e., avoids direct effects on caribou and their habitat). ISR mining also reduces the potential for interactions between caribou and Project components / activities as it concerns sensory disturbance as it is inherently a less intensive form of mining with reduced noise/light/vibration generation (i.e., avoids indirect effects on caribou and their habitat).



- Site clearing and other works that involve disturbance of vegetation and/or soil will be completed during least-risk timing windows for caribou (for example, outside of wintering/calving period from April 1-July 31, per ENV 2013), where practical, to avoid disturbance during sensitive time periods.
- Pre-disturbance wildlife surveys will be completed to identify caribou presence and work will be postponed if caribou are present.

## 4.2 Minimize

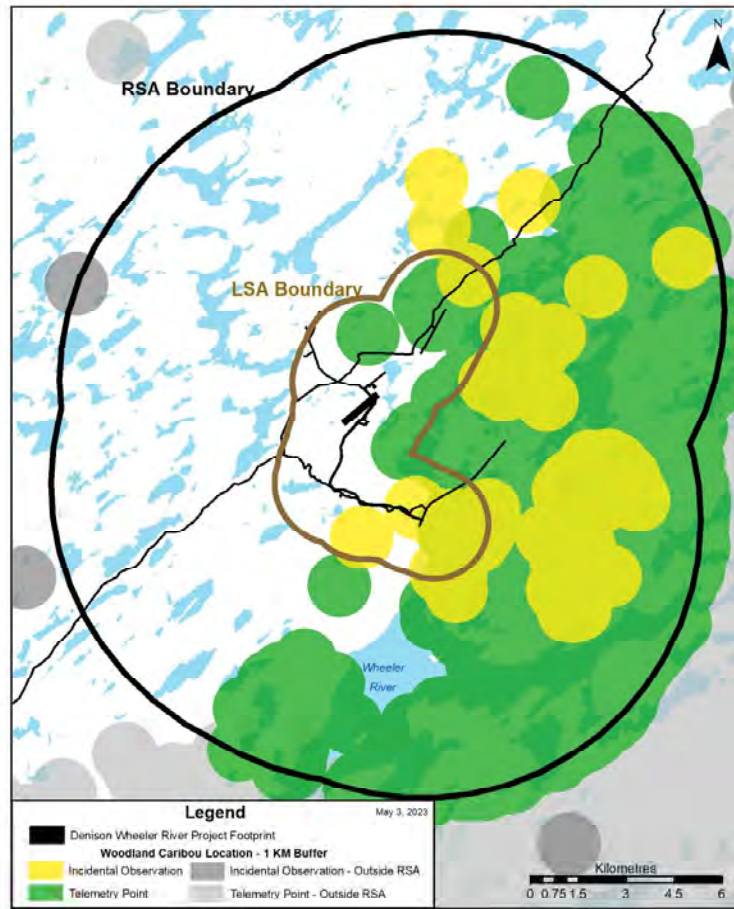
Additional mitigation measures to minimize effects on caribou and their habitat and tailored to Project features have been incorporated into the various Project management and monitoring plans within the Environmental Management System (EMS) including but limited to erosion and sediment controls, soil and vegetation monitoring, Decommissioning Plan, air quality monitoring, fuel spill control and response, Radiation Protection Plan, surface water and effluent monitoring, and Waste Management Plan.

The Project's EMS plans provide direction on monitoring and adaptive management so that issues are identified and mitigation measures are developed and implemented in a timely and effective manner. Mitigation measures specific to caribou are applicable during all Project phases, within all seasons and expected to be effective following appropriate implementation. Examples of the measures to minimize Project effects on wildlife in general, and caribou in particular, are highlighted below.

### 4.2.1 Disturbance Footprint

- Siting Project components in close proximity to the ISR mining area minimizes indirect effects on caribou and their habitat. The Project components are also west of the known home range of woodland caribou (based on tracking data received by the Ministry of Environment; Figure 4-2), although the absence of data does not mean the absence of caribou and Denison has observed caribou in the area. . Appropriate siting is anticipated to minimize the potential for interactions with woodland caribou and Project activities.
- The Project footprint (i.e., the area of maximum physical disturbance) has been reduced to the extent safely practicable, resulting in limited/minimal habitat loss/disturbance and noise propagation.
- Portions of the proposed Project footprint will be developed within previously disturbed areas, including roads currently used for exploration activities, thereby minimizing additional habitat disturbance.

## Denison-Wheeler Study Area - Woodland Caribou Location Data



RSA Boundary		
Data Type	Years	Number of Locations
Incidental Observation	1987, 2017 – 2022	89
Telemetry Point*	2013 – 2016	3,848

\*Data from 15 individual woodland caribou cows

LSA Boundary		
Data Type	Years	Number of Locations
Incidental Observation	2017 – 2022	19
Telemetry Point*	2013, 2015 – 2016	62

\*Data from 4 individual woodland caribou cows

NOTE: Absence of data does not mean absence of woodland caribou.

**Figure 4-2 Saskatchewan Ministry of Environment Woodland Caribou Location Data Provided to Denison**

#### 4.2.2 Wildlife and Habitat Protection

- Project activities have been assessed for their potential to disturb or remove wildlife and/or wildlife habitat (e.g., site clearing, soil disturbance) to determine potential effects on wildlife and wildlife habitat and the assessment, including proposed mitigation measures, for the Project will guide Project activities.
- Pre-disturbance wildlife clearance surveys will be conducted within the Project Area; results of the clearance surveys will inform the development and implementation of appropriate mitigation (e.g., delay of work) to address the identified issue (e.g., presence of caribou).
- Personal firearms for employees and contractors will be prohibited within the Project Area to prevent hunting activities.
- Policies will be implemented prohibiting employees and contractors from feeding, approaching, or harassing wildlife species within the Project Area.
- To support wildlife habitat regeneration, progressive restoration including ecosystem-based revegetation will be conducted on disturbed areas as soon as practicable in accordance with the Decommissioning Plan.

#### 4.2.3 Wildlife Deterrence and Prevention of Wildlife Entrapment

- In addition to installing secure fencing around all contaminated areas to prevent accidental contaminant exposure, buildings and other Project components will be designed and maintained to exclude wildlife from using buildings for refuge or shelter, and to deter wildlife from potentially becoming entrapped.

#### 4.2.4 Sensory Disturbance

- Noise emitting Project activities will be managed to minimize sensory disturbance of wildlife, especially during sensitive time periods, such as calving. This would include:
  - locating excessive noise generating activities such as the concrete batching operation as far away from sensitive wildlife locations as possible;
  - directing the generator discharge openings away from sensitive locations; and
  - making use of available on-site obstructions to control sound exposure at sensitive areas (i.e., locate sources behind buildings).
- The main sources of noise will be related to transport of people and goods, drilling of holes for the freeze wall and wellfield, operation of the batch plant, operation of the processing plant, and operation of the pumphouses. Low sound emission equipment and the use of silencers or mufflers (whenever practical) will be used to reduce noise associated with Project activities. There will be regular maintenance of equipment to ensure it is in proper working order and not emitting noise unduly.

- Lighting will be focused on work sites and not surrounding areas, to minimize light trespass and other light-related pollution sources.
- Facilities will be illuminated only to meet standards set for the protection of workers to avoid over-illumination.
- Battery-powered, light vehicles and mobile equipment, and an AC powered dual rotary drill will be used for ISR wellfield development instead of a traditional diesel-powered unit, where practical, to reduce air emissions and noise levels and improve energy efficiency.
- Fugitive dust sources that could lead to deposition of dust on vegetation and waterbodies (including potential deposition of trace metals and radionuclides) will be reduced by:
  - dust suppression techniques on site roadways, such as road watering and traffic management;
  - directing processing plant exhaust from drying and packaging areas through a stack prior to release outside of the building;
  - designing the stack height based on results of air dispersion modelling to be an appropriate height for optimal dispersion;
  - making a wash bay available to clean items, equipment, and vehicles that may have been in contact with potentially contaminated materials. Contaminated water from the wash bay will be collected in a sump tank and routed to the water treatment plant for treatment and discharge; and,
  - conducting radiological clearance scanning as required for any items, equipment, and vehicles leaving the Project Area.

#### **4.2.5 Road and Traffic Management**

- Traffic and access control measures will be implemented, including managing traffic volume by scheduling truck convoys, using high-volume haul trucks, and restricting public access (e.g., private vehicles, snowmobiles, all-terrain vehicles, and foot traffic) to the Project site and roads with both north and south security access gates. It is important to note that if any individual were seeking access around the Project area to undertake Aboriginal and / or Treaty Rights, Denison staff would facilitate this, provided it was safe to do so given Project activities in the area.
- Appropriate road signage will be installed (e.g., speed limits, identification of wildlife crossings and areas of high activity) along Project roads to minimize the risk of wildlife-vehicle collisions.
- Speed limits will be implemented to reduce the risk of wildlife-vehicle collisions.
- Wildlife will have the right-of-way on Project roads, unless it is unsafe to stop (i.e., if a collision is imminent). Vehicles will not be used to encourage caribou to move off Project roads and processes will be implemented for employees and contractors to slow down and/or stop vehicles/equipment to allow caribou to move away or off the road before resuming normal road speeds for the area.



- Road watering and regular road maintenance to limit dust dispersion.
- Employees and contractors will report and communicate the location and circumstances of any roadkill observed on or alongside Project roads. Large-bodied wildlife carcasses found will be promptly reported to ENV and disposed of as directed to prevent scavenging.
- Vegetation along Project roads will be managed to reduce attractiveness to wildlife (e.g., forage plants) and maintain appropriate sightlines for drivers to minimize wildlife-vehicle collisions.
- Alternative measures on Project roads for de-icing and winter traction (e.g., sand, gravel) or dust suppression (e.g., water) will be implemented, whenever practicable, to limit the use of specialty chemicals and potential exposure of wildlife including caribou to them.
- Appropriately sized gaps in the roadside snowbanks during winter will be maintained to facilitate caribou crossing and escape and, with that, reducing their risk of vehicle collisions.
- New Project site and access roads will be designed to minimize sightlines for predators, whenever practicable, while still maintaining general road safety.
- Ditches and culverts along Project roads will be designed and maintained to minimize pooling of water as roadside pools may attract caribou.

#### **4.2.6 Water Management, Waste Management, Emissions, and Hazardous Materials Management**

- Education on and enforcement of proper water, waste, emissions and hazardous materials management practices will be provided to employees and contractors.
- A freeze wall will be established around the uranium deposit to reduce potential for groundwater disturbance or contamination mitigating the likelihood of exposure of caribou to contaminants in local areas of groundwater discharge to surface.
- The ISR wellfield and processing plant will be designed to re-use most of the solutions inside each circuit, reducing water use requirements to the extent feasible. Make-up water will be preferentially sourced from site runoff (instead of freshwater) where possible.
- Contaminated wastes (e.g., mineralized drill cuttings, process precipitates) will be temporarily stored on double lined pads with leak detection capabilities and an associated monitoring program until final disposal at an approved facility. An adjacent pond will be used to collect contact water from these pads.
- All contact water will be routed to the Industrial Wastewater Treatment Plant for treatment and eventual release to the environment. All treated effluent released to surface water will meet federal and provincial regulatory discharge limits. This will mitigate exposure of caribou to Project-related contaminants released to the environment.

- Surface pipelines will be designed to have secondary containment or catchment and have leak detection systems in place at key locations to mitigate the likelihood of the release of such chemicals to the environment that could result in exposure of caribou to the chemicals.
- Double-walled high-density polyethylene (HDPE) or equivalent piping will be used in the wellfields and will be freeze protected and secured to minimize pipe movement to mitigate the likelihood of the piping failure and the associated release of wellfield chemicals to the environment that could result in exposure of caribou to the chemicals.
- Denison is proposing to segregate and compost organic wastes on site in a composting system, reducing the volume of material in the domestic landfill generating odours and thereby minimizing wildlife attractants.
- Domestic waste will be collected and temporarily stored in wildlife-proof containers to avoid attracting wildlife and reduce the risk for human-wildlife interactions. The wildlife-proof containers will be inspected regularly for evidence of wildlife presence or access to waste disposal facilities. If evidence of wildlife presence or access to waste disposal facilities is detected, modified systems will be implemented and/or off-site waste disposal/incineration frequencies will be increased.
- A "no littering policy" for employees and contractors will be implemented within the Project Area.
- Air emissions will be reduced to the extent practical through implementation of the development of air emissions management and monitoring plans within the EMS.
- All vehicles and equipment will be equipped with industry-standard emission control systems; unnecessary idling of vehicles will be prohibited to reduce emissions.
- The use of hazardous materials will be limited as much as possible.
- Appropriate hazardous materials management practices will be implemented in accordance with industry guidelines to minimize the risk of accidental spills or leakage. This will mitigate the likelihood of release to the environment that could result in exposure of caribou to the hazardous materials.
- Hazardous materials will be handled, stored, and disposed of appropriately and in accordance to avoid attracting wildlife (e.g., wildlife-proof containers, exclusion fencing) to mitigate the likelihood of exposure of caribou to hazardous materials.
- Physical deterrents (e.g., fencing) will be employed around contaminated areas (e.g., waste ponds and waste pads), the domestic landfill, or hazardous materials storage areas to discourage wildlife use / interaction. The deterrents will be monitored and maintained .
- Appropriate spill response kits will be positioned adjacent to areas where hazardous materials are stored in accordance with the Spill Response Plan to mitigate the likelihood of

the release of hazardous material to the environment that could result in exposure of caribou to the material.

- A minimum 100 m distance from any waterbody will be maintained for fuel storage, refueling activities, or equipment servicing in accordance with the Spill Response Plan. This will mitigate the likelihood of a fuel spill to water that could result in exposure of caribou to fuel.
- Appropriate fuel, chemical, and materials management practices will be followed in accordance with the Spill Response Plan to minimize the risk of accidental spills or leakage of diesel fuel, other hydrocarbons, and other hazardous materials and mitigate the likelihood of exposure of caribou to such chemicals.
- All vehicles and equipment will be maintained in good working condition (e.g., no leaks) and furnished with industry-standard spill response kits.

#### **4.2.7 Wildlife Education**

- Employees and contractors will be provided with wildlife education and awareness training, including education about potential caribou issues on site and training on the mitigation measures summarized with the EMS and specifically in this Plan to avoid or minimize potential Project effects on caribou and caribou habitat.
- Employees and contractors will be educated on waste and hazardous waste management practices / policies that limit human-wildlife interactions and the potential exposure of wildlife to those wastes.
- Designated employees will be trained in appropriate wildlife deterrent techniques to minimize wildlife interactions with the Project.
- Employees and contractors will be requested to report wildlife observations, including prompt reporting of caribou observations and immediate communication to on-site staff. Wildlife encounters and outcomes will be monitored, and logbooks will be used to record wildlife observations. Logbooks and reports will be available to employees. Incidental observations recorded by staff will be entered into Species Detection Loadforms and submitted to the Saskatchewan Conservation Data Centre annually.

### **4.3 Restore**

The temporal bounds for the Project as stated in the EIS are years 1 to 3 for construction, years 3 to 18 for operation, years 18 to 23 for decommissioning, and fifteen years of post-decommissioning monitoring and inspections from years 23 to 38. Importantly, during physical decommissioning the majority of Project components are scheduled to be removed from site which is expected to facilitate restoration activities. Also, because of the selected ISR mining method, there are no large, permanent Project components, such as waste rock piles or tailings management facilities, for which large scale and potentially complex restoration strategies are needed.

Denison's decommissioning commitment is to return the land back to the Province of Saskatchewan for unrestricted surface land use post-closure. The Project's Conceptual Decommissioning Plan (CDP) is included in the draft EIS. The details of decommissioning and restoration will be refined over time as the Project proceeds. A Preliminary Decommissioning Plan (PDP) will be developed by Denison to support licensing and permitting applications. Prior to executing decommissioning activities, Denison will prepare and submit a Detailed Decommissioning Plan (DDP) to regulators for their review and acceptance, which builds on the PDP.

The CDP outlines plans for physical decommissioning (mining area remediation; asset removal; and decontamination, demolition, and disposal), followed by restoration. A summary of the CDP is provided here.

- Ongoing decommissioning of Project components will be completed when possible.
- Denison has committed to progressively restore areas no longer necessary to support/facilitate Operations to limit the amount of disturbance at any given time. Restoration of inactive areas will take place when/as these areas become available. The progress and success of these activities will be assessed regularly at a schedule commensurate with the expectations of the activities per the decommissioning plan. Progressive restoration including ecosystem-based revegetation will be conducted on disturbed areas as soon as safely and logistically practicable with the use of suitable/appropriate native species and in accordance with the decommissioning plan.
- Once the asset removal, decontamination, demolition, and disposal are completed, and the site has been cleared and leveled, restoration activities, including planting, will take place. Currently this would largely be with jack pine seedlings, but the mix of plants will depend on location and available species. Restoration activities monitored until it is deemed self-sustaining and viable wildlife habitat.
- Future discussions will be held with Indigenous and general public Interested Parties to determine the amount of access to the area they wish to maintain in the future (post-decommissioning). Based on results of these discussions, transportation corridors including roads or trails associated with the Project site that are no longer needed will be graded, scarified, and vegetated with native, self-sustaining species as required. Access to facilitate safe post-closure monitoring or requested by appropriate Interested Parties (e.g., to facilitate land use) may be left in place. Access to the site may be restricted by gates and/or berms.
- Laydown areas will be scarified, covered with 0.5 to 1.0 m of stockpiled overburden, and vegetated with native, self-sustaining species. The footprints of other infrastructure, such as the camp, will be scarified and vegetated with native, self-sustaining species as required. The topsoil and brush stockpiled during pre-construction activities will be used during restoration.
- Lessons learned from progressive decommissioning and any site-specific restoration studies will be incorporated into the DDP. Additionally, information from other northern Saskatchewan mine



sites will be examined to help Denison select the restoration tools, including revegetation options, that will contribute towards decommissioning success.

Closure of the entire Project will be completed in accordance with provincial and federal regulations and guidance documents with the fundamental considerations being to confirm physical and chemical stability of the site to protect human health and the environment.

Progressive decommissioning and restoration will be completed throughout the life of the Project, whenever feasible, and reported to the regulatory agencies as part of the annual reporting requirements throughout Operation. Associated activities will focus on the decontamination, demolition, and disposal of unused buildings and infrastructure, as well as the removal of unused equipment and machinery. Progressive decommissioning and restoration are expected to continue and result in positive effects as revegetation is continued and regeneration occurs. Following decommissioning and restoration, wildlife habitat is expected to recover to baseline conditions.

## 5 Habitat Loss Calculation

### 5.1 Habitat Loss in Context of the Disturbance Management Threshold for SK1

To support the Plan with respect to the calculation of habitat loss, a mapping exercise was completed to provide context on the Project-related habitat loss in consideration of the woodland caribou range (SK1) disturbance management threshold (ECCC 2020).

#### 5.1.1 Approach

First the Project infrastructure footprint area was delineated and estimated to be 80 ha. Next, a 500 m buffer was applied to the Project footprint, resulting in a total potential disturbance area of 1,350 ha. This is consistent with the approach for determining direct and indirect effects, as outlined in ECCC (2020).

Finally, an analysis was undertaken to quantify the amount of caribou habitat that is currently disturbed within the Project footprint + 500 m buffer. According to ECCC (2020), there are two contributors to disturbed habitat in SK1: 1. anthropogenic disturbance + 500 m buffer and 2. fire disturbance in the last 40 years, without a buffer. The two factors for disturbed habitat were considered as follows:

1. Existing anthropogenic disturbance + 500 m: For anthropogenic disturbance calculations to inform the Plan, mapping was completed and evaluated to determine the existing anthropogenic disturbance. Although the EIS considered anthropogenic disturbances on IKONOS imagery at the 1:5,000 scale, the mapping exercise to support habitat loss calculations in the Plan used anthropogenic disturbances visible on Landsat at the 1:50,000 scale, to be consistent with the definitions of disturbed habitat from the amended recovery strategy (ECCC 2020).
2. Fire disturbance in the last 40 years, without buffer: To determine ecosites that were in a regenerating phase or having experienced fire disturbance in the last 40 years, the ecosites BS3/BS7-Jack pine-blueberry/Black spruce-blueberry/lichen were used, based on previous ecosite classification work completed to support the EIS.

#### 5.1.2 Results

As shown in Table 5-1 and Figure 5-1, the proposed Project footprint + 500 m buffer is almost entirely located within existing, buffered anthropogenic disturbance. This means the Project footprint + 500 m buffer is located within already disturbed habitat, according to ECCC (2020). Additionally, the mapping exercise shows that approximately half of the Project footprint + 500 m buffer is located within regenerating forest, i.e., forest burned less than 40 years ago (Figure 5-2).

**Table 5-1: Existing Disturbed Habitat within Buffered Project Footprint**

	Area within Project Footprint + 500 m buffer (1,350 ha)
Existing anthropogenic disturbance (+ 500 m buffer)	1,298 ha
Regenerating forest (fire disturbance in the last 40 years; no buffer)	730 ha

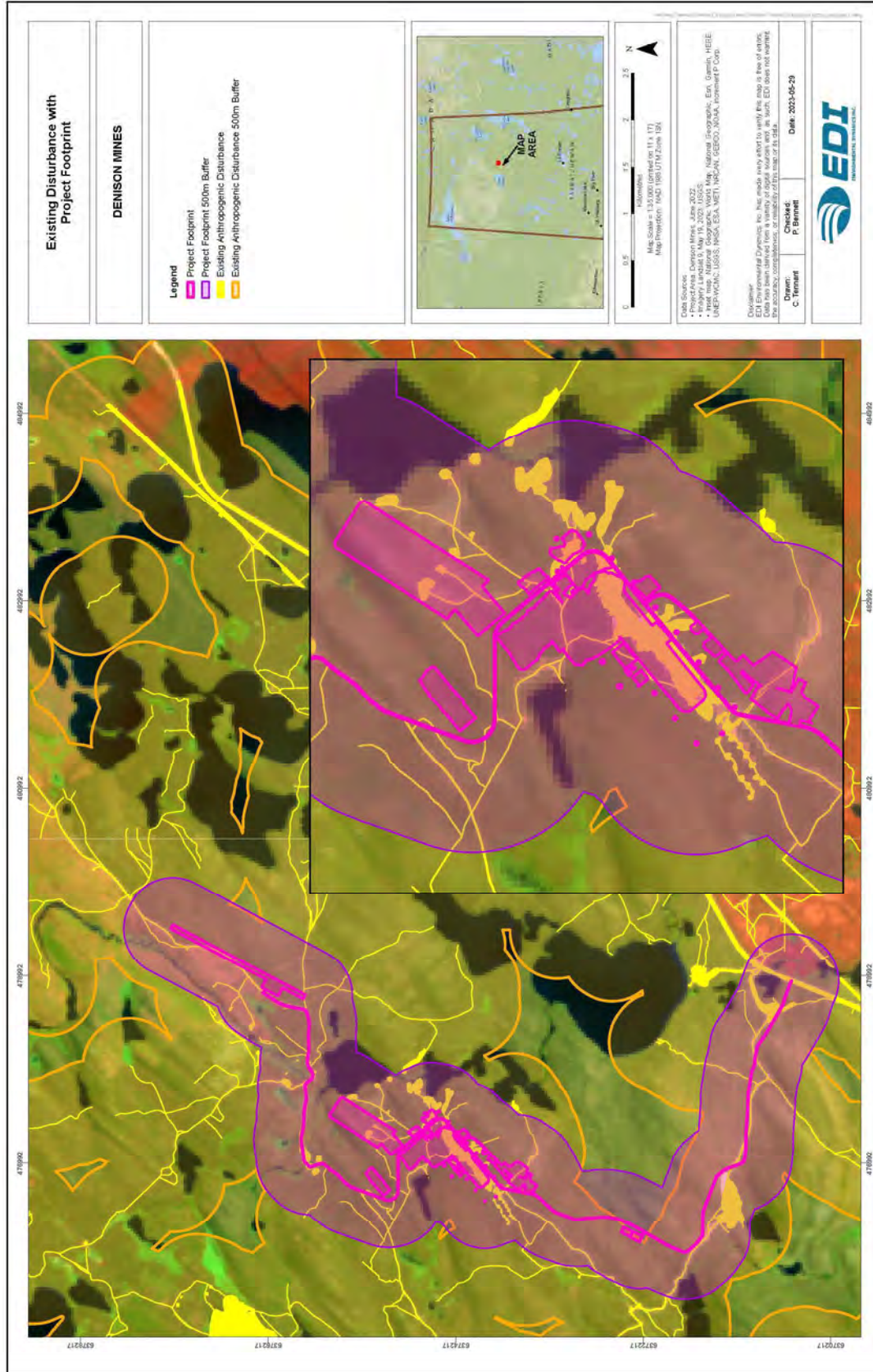
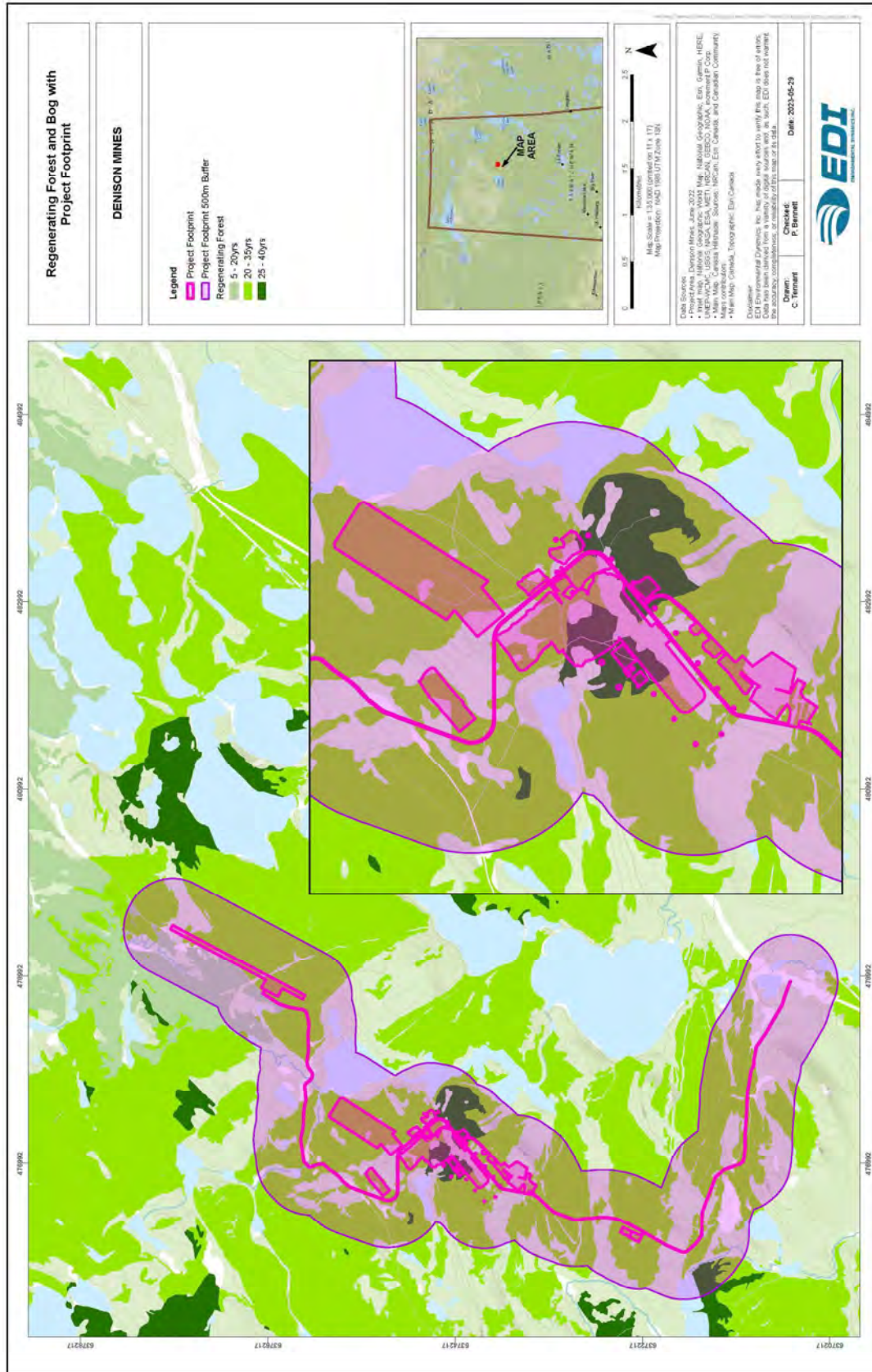


Figure 5-1: Proposed Project Footprint (+ 500 m buffer) with Existing Anthropogenic Disturbance (+ 500 m buffer) Visible on Landsat at 1:50,000





**Figure 5-2: Proposed Project Footprint (+ 500 m buffer) with Regenerating Forest**



Based on the above analysis using ECCC (2020) criteria, should the Project proceed, the disturbance management threshold for SK1 range would remain unchanged.

Additionally, ECCC (2020) identified the caribou population in the SK1 range as being self-sustaining at a threshold of 40% undisturbed habitat and recommended that total anthropogenic disturbance in the SK1 Boreal Shield range should not exceed 5% with the remainder (i.e., 55%) being attributed to natural disturbance (while maintaining a minimum of 40% undisturbed habitat in the range). ECCC (2020) calculated that approximately 58% of the SK1 Boreal Shield range is currently affected by past forest fires and 3% of the range is affected by anthropogenic disturbances. For additional context, the size of the SK1 Boreal Shield range is estimated at 18,034,870 ha (ECCC 2020). The Project footprint + 500 m buffer (1,350 ha) would represent an estimated Project-related disturbance of 0.007% at the scale of the SK1 Boreal Shield Woodland Caribou Management Unit.

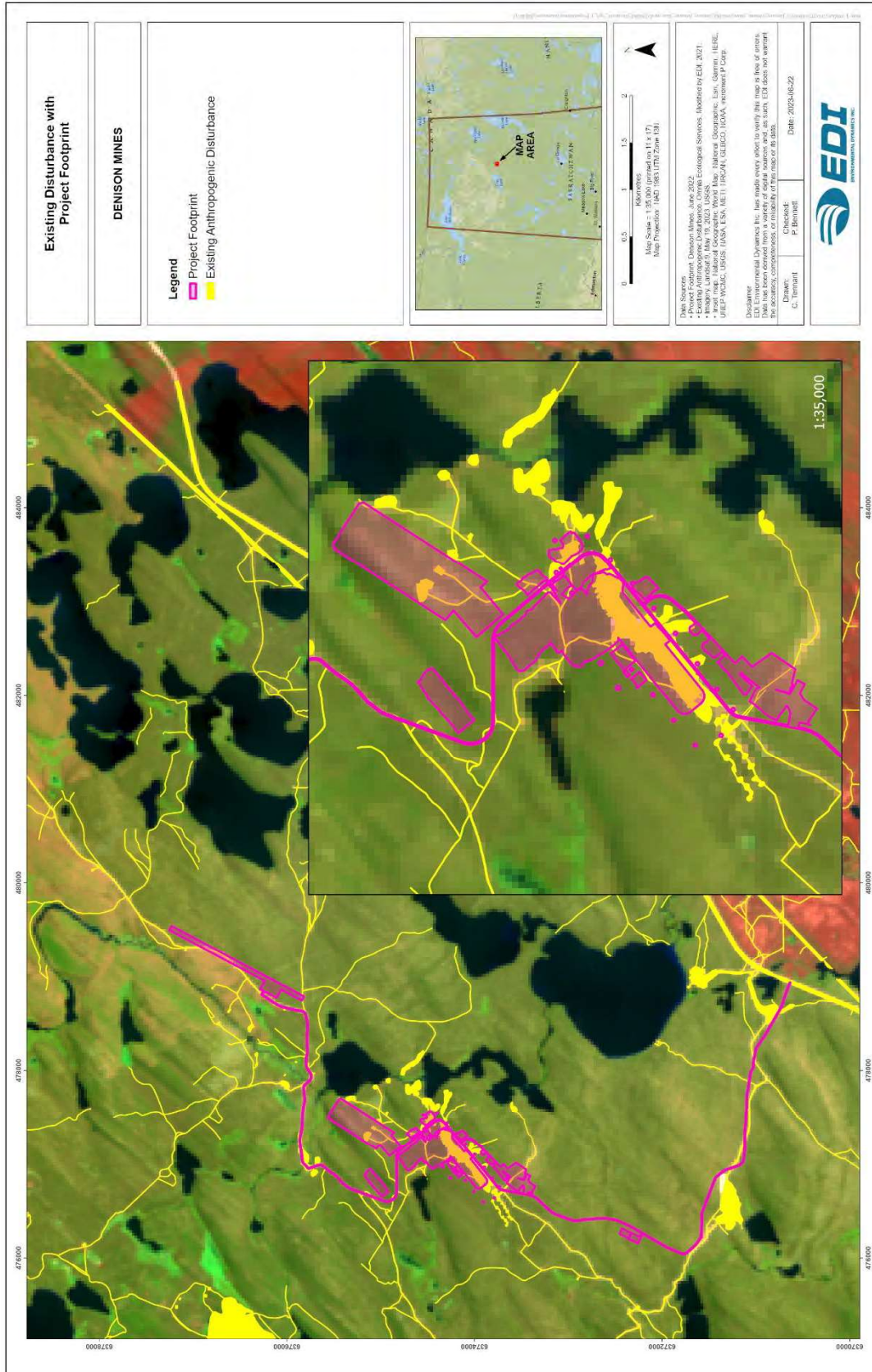
## 5.2 Direct Loss Calculation

The Project infrastructure footprint has been delineated and the area was determined to be 80 ha. Of this area, 12 ha are comprised of previously disturbed land resulting from past activities (e.g., access, exploration camp and laydown areas). The remainder of the Project footprint is comprised of regenerating forest (forest less than 40 years old) habitat which is typically considered to be low quality habitat for caribou (Figure 5.3).

**Table 5-2: Land Cover Types within the Project Footprint**

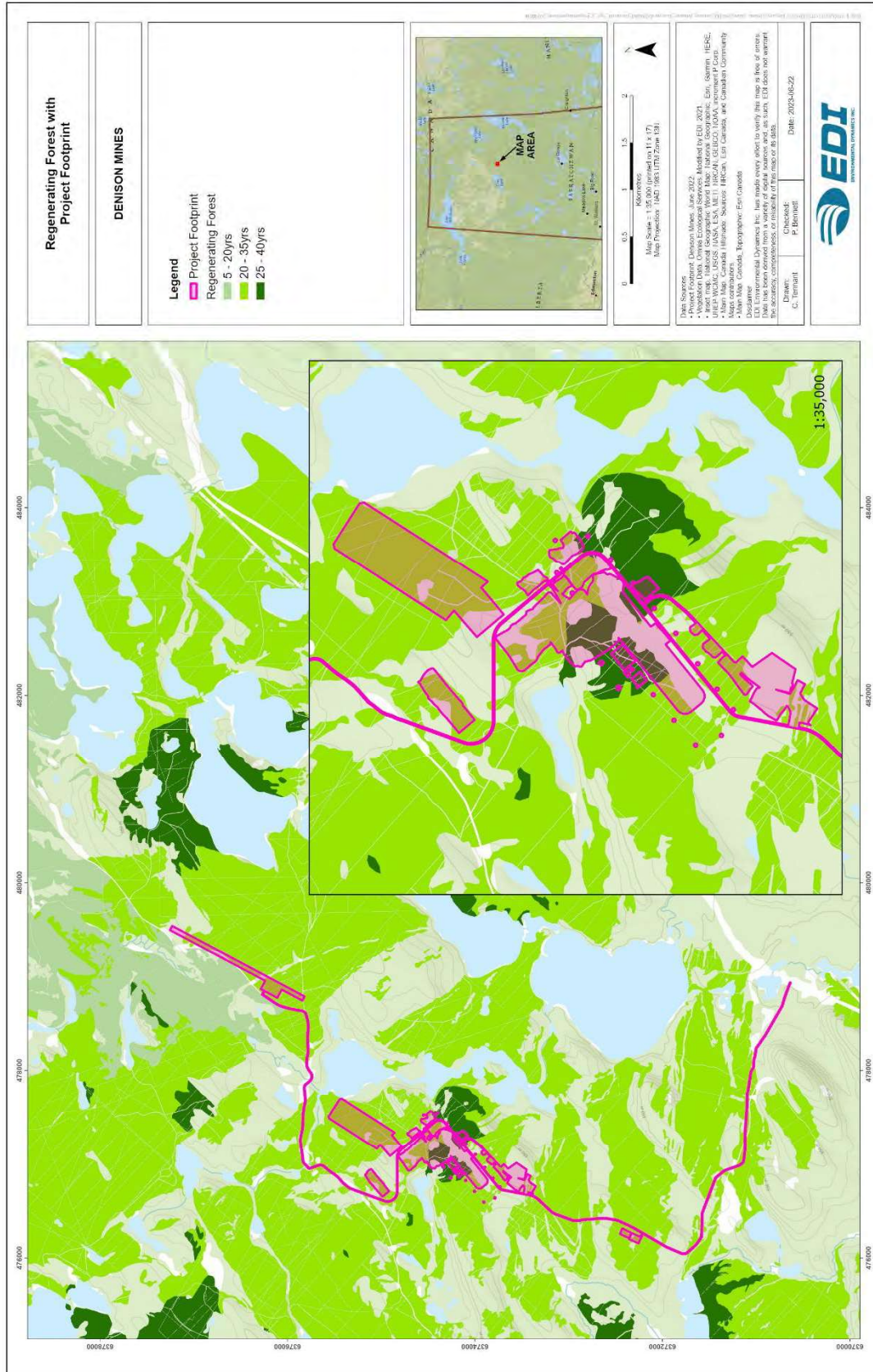
	<b>Total Area</b>
<b>Project footprint</b>	80 ha
<b>Existing anthropogenic disturbance</b>	12 ha
<b>Regenerating forest habitat (i.e., low quality caribou habitat)</b>	68 ha

Denison understands that the Project will likely result in a limited residual effect on caribou and their habitat within the RSA; however, these effects are considered to be small in a relative sense when considered in the context of the SK1 range, as described in Section 5.1.



**Figure 5-3: Proposed Project Footprint with Existing Anthropogenic Disturbance Visible on Landsat at 1:50,000**





**Figure 5-4: Proposed Project Footprint with Regenerating Forest**

It is Denison's understanding that currently there are no provisions/requirements for caribou habitat offset by the ENV for projects within the SK1 range. Denison recognizes the importance of woodland caribou to Indigenous groups, the general public, other Interested Parties in Saskatchewan, and Canada. As such, as part of this Plan, Denison is proposing to continue to work with ENV to determine an appropriate offset based on the habitat loss as a result of the Project. Denison expects that the proposed offset calculations would likely include aspects of additionality, temporal considerations, spatial considerations, and other aspects, depending on the expectations/requirements of the caribou habitat offset process that the ENV is currently refining/finalizing. The proposed offset calculations are expected to be refined through ongoing communications with ENV to appropriately address issues at the provincial level related to caribou and habitat.

Future versions of the Plan will include detailed options to develop and advance restoration work and initiatives to provide responsible, proactive environmental stewardship. These offsets (Figure 5-5) are expected to be further refined/defined through Plan updates as the Project proceeds and consultations with ENV advance. Some initial options are presented at a conceptual level in Section 6.

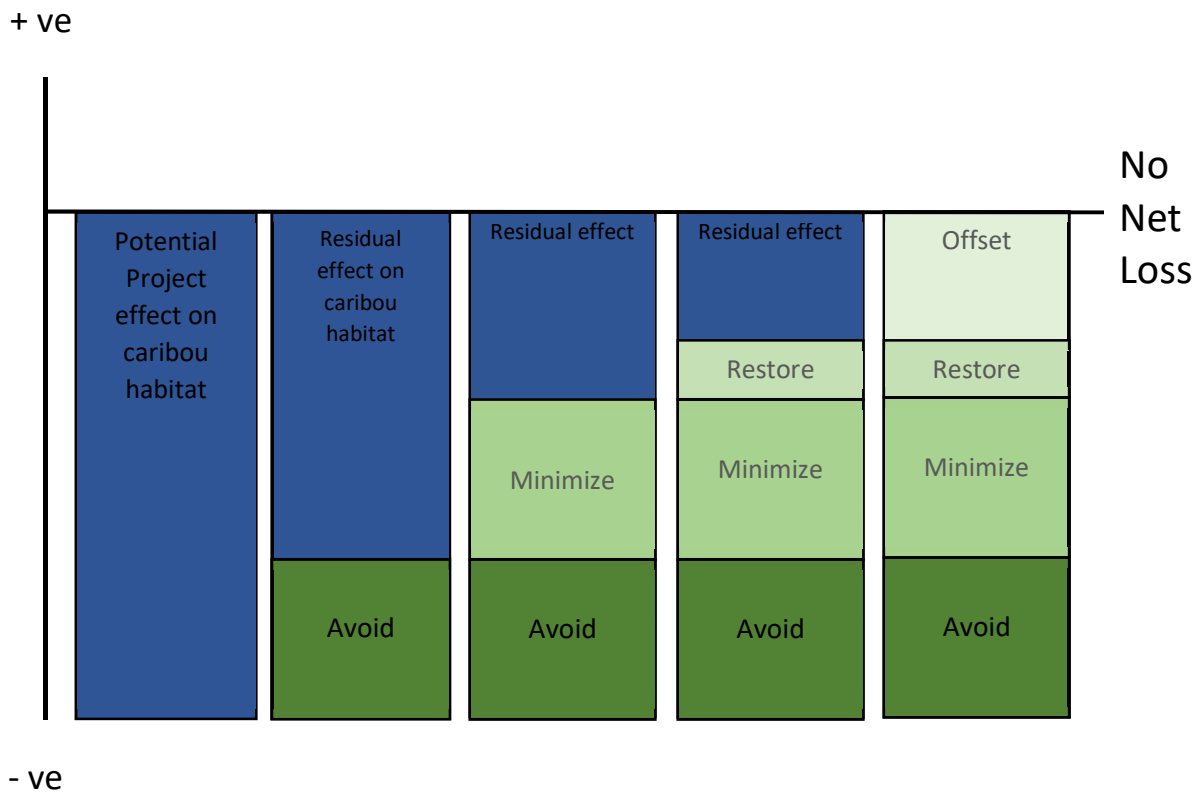


Figure 5-5: Wheeler River Project Conceptual Caribou Mitigation Plan to Achieve No Net Loss



## 6 Offset Framework

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This section provides a discussion on offset options will become more defined as the Plan advances, in consultation with ENV. This is expected to offset residual effects over the life-of-the-Project and enhance the restoration activities occurring within the Project footprint to result in no net loss of habitat within the RSA as a result of the Project.

### 6.1 Conceptual Offset Opportunities

An opportunity that Denison has proactively identified is a combined linear feature mitigation and restoration option. Denison has implemented a practical and experimental pilot study to investigate the design, implementation, testing, and monitoring of several functional and structural habitat mitigation options. This opportunity involves two components: 1) applying treatments to address (i.e., reduce) lines-of-sight and discourage linear feature use by both caribou and their predators, and 2) restoration focused on re-establishing terrestrial lichen communities co-established with a biological soil crust (BSC) component.

Importantly, to complete this pilot program, Denison has partnered with the University of Saskatchewan and Northwest Communities Environmental Services (an Indigenous-owned environmental company) under the Developing Eco-Restoration Together (DERT) program. This unique project aims to co-create ecological restoration practices that centre Indigenous peoples, worldviews, and values while also braiding knowledge from the land, Indigenous knowledge, and western science. The project is supported by the three partners but is ultimately guided by the Indigenous Project Advisory Board, and the Community Liaison/Education Coordinator. Through restoration trials, community engagement, and various planting techniques, Denison, with their partners are seeking to return ecosystem functions in areas where they have been previously disturbed (e.g., exploration cutlines). Through collaboration with community members, University of Saskatchewan, industry partners, two graduate students, and local youth, this project is expected to ultimately inform the creation of a framework for effective restoration practices in northern Saskatchewan that centre on caribou and Indigenous communities.

#### 6.1.1 Caribou Trail Study

Wildlife, particularly bears, wolves, and woodland caribou, are using anthropogenic linear features to move throughout their habitat with greater ease. This can result in increased chance encounters between predators and prey and could contribute to the reduction in woodland caribou populations (Omnia 2022). Denison is conducting research on the use of linear features predators and prey in the Athabasca Basin to collect relevant data to inform an effective plan designed to disrupt the current risk related to predator/prey movements/interactions.

Currently, ENV has no guidelines or protocols for assessing the status of disturbance features or for evaluating the need for linear feature mitigation. Denison proactively initiated research to collect field-based findings on the effectiveness of linear disruption features on predator/prey movements in the vicinity of the Project. This field program was designed and implemented to deploy and monitor the effectiveness of five linear feature treatments across nine locations. Treatment types include, seeding and/or planting of jack pine, spreading coarse woody debris, tree tipping, constructing biodegradable fencing, and earth/debris mounding. Methods vary by location but have a common goal: to discourage prolonged disturbance and encourage new growth in areas of disturbance (Omnia 2022). Each

treatment area is monitored by game cameras year-round to determine how wildlife interact with the created physical and visual barriers. All treatments are temporary and biodegradable with the purpose of reducing trail use in the near-term so that the forest can regenerate naturally.

Preliminary results are encouraging and indicate that bear use of treated lines was reduced by 43% compared to untreated lines, caribou use was reduced by 95%, and wolf and moose use was reduced by approximately 94%. Overall, use of treated lines by species of interest was reduced by approximately 83% when compared to baseline monitoring rates. These successful preliminary results will guide future work to define potential offset options associated with linear feature mitigation and restoration.

### **6.1.2 Biological Soil Crust Research**

To support restoration planning, additional research will be designed to investigate BSCs and conducted by a soil science graduate student at the University of Saskatchewan. This research is expected to contribute to the goals of the Developing Eco-Restoration Together Project. BSCs are communities of lichen, bryophytes, cyanobacteria, and microorganisms found in the top layer of the soil (Heindel et al. 2019). These surface soil mats are rich in diversity, and play an important role in the broader ecosystem, especially in locations with extreme climate, little moisture, and nutrient-poor soil (Cowden et al., 2022). Research on BSCs has been focused on desert regions, and this research provides insight to BSC's role in boreal ecosystems, specifically in northern Saskatchewan. By gaining a better understanding of how to support BSC establishment and growth, it is expected that the findings can inform restoration activities that would ultimately benefit caribou.

Sampling of BSCs within the region will be based on a fire chronosequence. This is expected to provide a foundation to better understand the functions and species present in BSCs, and how they develop post-disturbance (Coxson and Marsh 2001). Understanding how these communities develop and interact is important, especially considering the gap in knowledge on soil microbial communities, non-vascular species, and their role in restoration techniques.

A critical element in supporting caribou populations is the consideration of caribou forage lichens. Due to the slow-growing nature of lichens, it can be difficult to include them in restoration activities (McMullin and Rapai 2020). Denison is planning to focus on caribou forage, primarily through transplanting and propagation of the appropriate lichen species. Natural regrowth of lichen communities after fires takes place in a complex setting, where BSCs and bryophyte communities stabilize soil surfaces, providing habitats where lichen propagules can establish and grow (Coxson and Marsh 2001). Denison hypothesizes that reestablishment of terrestrial lichen communities will have a better chance of success where these supporting BSC components can be co-established at the same time. The findings from the BSC research within post-fire environments is expected to support lichen communities, restoration activities for the DERT project, and ultimately caribou and caribou habitat within the Wheeler River Project area.

## 7 Monitoring and Adaptive Management Framework

An adaptive management framework will be developed to support the implementation of this Plan (Figure 7-1). In this context the adaptive management framework provides the means for the integration of Plan scope, management, and monitoring to systematically evaluate assumptions to adapt and learn. In practical terms the framework will consider the outcomes of actions taken/implemented, whether they have been successful and, if not, how can such actions be adapted to increase the likelihood of success. Outcomes of the Plan would be measured by establishing performance indicators as the way to define and measure progress toward achieving the objectives.

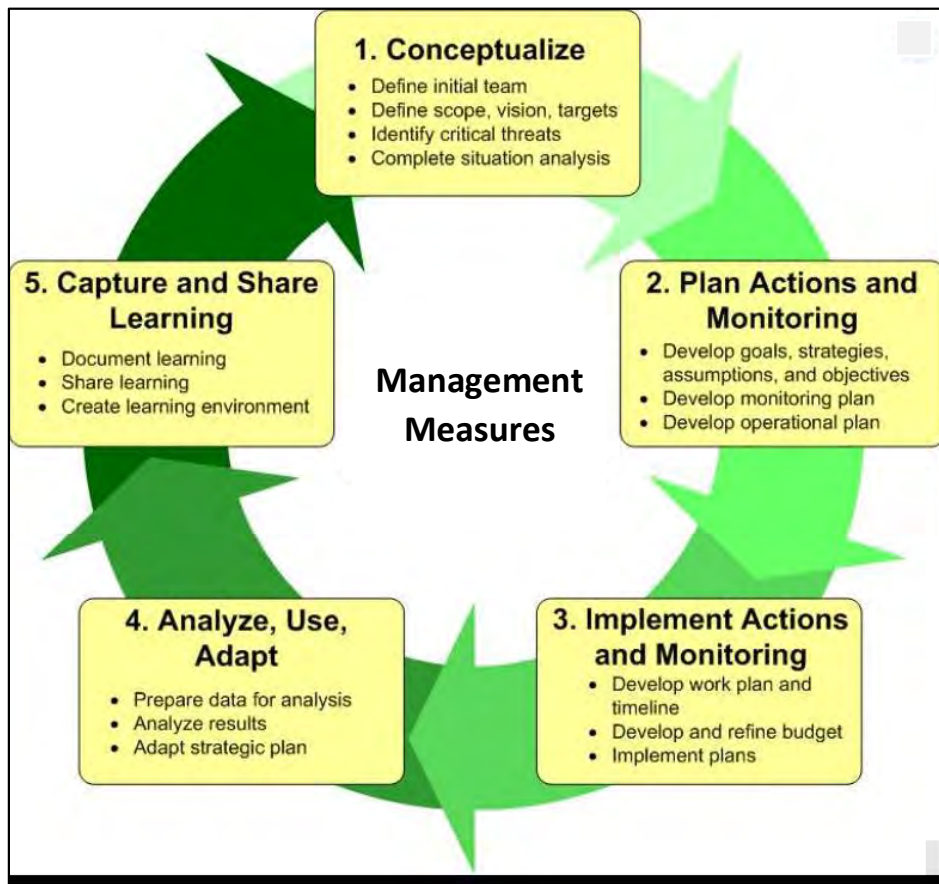


Figure 7-1: Adaptive Management Cycle

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A handwritten signature in blue ink that reads 'Bruce Hanbidge'.

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November 23, 2023

Bruce Hanbidge  
Operations Manager  
Ya'thi Néné Land and Resource Office  
335 Packham Ave Unit 100  
Saskatoon, SK S7N 4S1

Sent via email: [bruce.hanbidge@yathinene.ca](mailto:bruce.hanbidge@yathinene.ca)

Dear Bruce:

Thank you for your letter dated July 20, 2023 shared with us following our meeting of technical experts to *generally* discuss the comments made by the Ya'thi Néné Land and Resource Office ("YNLR") on the Wheeler River Project ("the Project") draft Environmental Impact Statement ("EIS"), provided to the Canadian Nuclear Safety Commission ("CNSC") on March 4, 2023. During the meeting on July 17, 2023 we appreciated the opportunity to broadly discuss the concerns raised about the EIS.

Over the past months, Denison has been working diligently to consider the comments made by the YNLR and respond to the July 20, 2023 request to provide written responses to the comments and questions that were raised in the YNLR's intervention. As such we are pleased to provide you with comprehensive responses in this regard. Please note, the format for our responses is set out in table form, following the manner in which the CNSC provided Denison with the complete suite of public comments made on the EIS. Additionally, we've also attached a technical memo with respect to a series of comments raised with respect to woodland caribou habitat and the relationship between the Project and the existing disturbances on the landscape.

We trust this information will provide clear responses to the issues identified by YNLR, and demonstrate that the Project, as proposed and assessed, is a sustainable mining project, and we look forward to hearing from you upon your review of the materials enclosed.

Sincerely,

A handwritten signature in blue ink that reads 'Janna Switzer'.

Janna Switzer  
Director, HSE Regulatory Compliance

Cc: Garrett Schmidt – YNLR  
Dana Kellett – YNLR

Attach: Table: Denison Responses to YNLR draft EIS Comments  
Memo: Denison Response to Woodland Caribou Habitat Comments

Denison's Responses to Comments from YNLR on the Wheeler River Project draft EIS  
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**Denison's Responses to Comment from Ya'Thi Néné Lands and Resource Office (March 4, 2023) for the Wheeler River Project Environmental Impact Statement**

Ref. No.	Source	Reference to EIS, appendix, or supporting documentation	Comment Summary (all original submissions can be found on Canadian Impact Assessment Registry reference: 80171)	Denison Response
375	Ya'Thi Néné Lands and Resource Office (YNLR) (March 4, 2023)	EIS Executive Summary, p. 2	<p>Comments #1, 2 and 3, Appendix A: YNLR sees a potential benefit of the in-situ approach as it is designed to reduce the surface disturbance of the Project, and the potential leakage of contaminants from excavated rock and tailings. However:</p> <ul style="list-style-type: none"> <li>YNLR is concerned that the extraction of source water for the Project may have a negative effect on stream flows both below- and aboveground.</li> <li>YNLR is concerned with the potential effects of contaminants released during and after the Project.</li> </ul>	<p>Denison acknowledges these concerns and notes the comment from YNLR references the Executive Summary. Both of the areas of interest raised by the comment are addressed in the main part of the draft EIS and supporting appendices. Denison refers YNLR to the following sections for comprehensive evaluation of these aspects of the Project:</p> <ul style="list-style-type: none"> <li>Potential changes in surface water quantity as the result of the Project, including consideration of water taking activities, are presented in the hydrology assessment (draft EIS, Section 8.1).</li> <li>Potential changes to groundwater quantity and quality as the result of the Project, including consideration of the long-term implications of the mining method, are presented in the groundwater assessment (draft EIS, Section 7). Specifically, the 'future centuries' temporal scope of the assessment for Groundwater considers the period for which the highest COPC concentrations in groundwater are predicted to interact with surface water based on groundwater modeling described in Appendix 7-C. Due to the relatively long travel time (relatively low groundwater velocities) between the mining area (Section 7.6.2.2.3) and the surface water environment where groundwater/surface water interactions are expected, as well as the potential for chemical reactions along the groundwater flow pathway, a 'future centuries' scenario was deemed appropriate to fully assess potential future effects beyond the Project timeline (i.e., 0 to 38 years). The 'future centuries' temporal scope was also developed in recognition of the concerns raised by Interested Parties through the engagement process around the potential for the Project to influence water quality into the future.</li> </ul> <p>These assessments, completed in a transparent and rigorous manner, concluded that residual effects of the Project would not be significant. Follow-up and monitoring programs will be employed to confirm mitigation measures are functioning as planned and to confirm EA predictions. For example, a groundwater monitoring plan, including an excursion contingency plan and measures for adaptive management will be implemented for the Project.</p>

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376	YNLR (March 4, 2023)	EIS Executive Summary, p. 2	Comment #4, Appendix A: based on the information from p. 2 of the Project Overview: YNLR assumes no permanent work camp will be constructed YNLR expects that a sizeable proportion of the Project workers will be hired from the local and regional area.	<p>Denison's Indigenous Peoples Policy sets out priority for Indigenous employment and procurement (among other items). With respect to employment, as noted in Section 13.3.2.1 of the EIS, Residents of Saskatchewan's North (i.e., those resident in the northern administration district of Saskatchewan, inclusive of YNLR) are prioritized for employment as an expected condition of the Surface Lease Agreement, similarly for goods and services to service the Project. With respect to procurement, Denison has established an internal procurement policy approach. The approach requires that Denison consider businesses within the local study area first and the Northern Administrative District second, prior to looking elsewhere (southern Saskatchewan and/or outside of Saskatchewan) throughout all phases of the Project. YNLR businesses would fall in the category of northern Saskatchewan businesses, which would place them in line for second preference if project needs cannot be met within the local study area.</p> <p>Details on the Project components are provided in EIS Section 2. The Project will be operated as a fly-in/fly-out mine, meaning the opportunities for interactions between the workforce and Indigenous communities are limited as workers will be transported by air directly to the site. The proposed camp or accommodations facility is anticipated to be a turnkey building manufactured off site and assembled and commissioned on site. The building's design will be sized to accommodate a peak load of about 190 individuals during Operation; however, due to its modularized design, additional modules can be easily installed should additional beds be required in the future.</p> <p>Section 13 provides the assessment for the key indicator of employment and training, which is a component of the Economy Valued Component. A summary of residual environmental effects on employment and training is found in Table 13.5-2. Employment opportunities represent direct and indirect benefits associated with construction and operation of projects, particularly in the vicinity of communities where unemployment is typically high.</p> <p>Additionally, because the property is located on Crown Land, a mineral surface lease agreement will be negotiated with the Province, specifically the Ministries of Environment and Government Relations. The agreement grants surface rights for the purpose of accessing the land to extract minerals under the Crown Resources Land Regulations. The mineral surface lease agreement</p>



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				provides long term rental of Crown land for mining and milling in Saskatchewan. The agreement also contain specific commitments for environmental protections for the life of the project, OH&S protocols, reporting requirements, and socio-economic benefits for residents of northern Saskatchewan.
377	YNLR (March 4, 2023)	EIS Executive Summary, p. 2	Comment #5, Appendix A: YNLR is concerned with the potential increase in road and off- road traffic affecting wildlife and fisheries sustainability	<p>Please note that the Project will not change public access to the area. The existing gate on Highway 914 near Cameco's Key Lake Operation will remain in place and no changes to the gate and the process for controlling access to Highway 914 north of the Key Lake Operation are proposed as part of the Wheeler River Project. The proposed operation is fly-in, so Project related traffic to the area would only be related to deliveries of materials to and from the site. On-site staff will not have access to personal (or company) vehicles and will largely be "confined" to the camp and work areas during their shifts.</p> <p>Refer to draft EIS, Section 12 Quality of Life for the assessment of potential Project effects on the Key Indicator of Infrastructure and services (traffic) and the associated measurable parameter of change in traffic volumes and types and risk of accident.</p>
378	YNLR (March 4, 2023)	EIS Executive Summary, p. 2	Comment #6, Appendix A: YNLR supports this built-in precautionary approach to the Project's risk assessment. However, given the lengthy timeline of the Project, YNLR would like to see that lost (i.e., unmitigated) wildlife and fisheries habitat be offset in some manner. A response to this should be approached through an anticipated impact benefit agreement.	<p>Through the EA process to date, Denison believes it has identified areas where offset may be required based on Project-Environment interactions. To this end, Denison has made a specific commitment to develop a Caribou Mitigation Plan (a preliminary draft of which has been submitted in response to provincial and federal EIS review comments) that includes provision for potential habitat offset. Details of the habitat offset will be developed in collaboration with Saskatchewan Ministry of Environment. Additional detail regarding the Caribou Mitigation Plan is also provide in the memo that is attached to this comment disposition table regarding the Project-specific cumulative effects assessment (CEA).</p> <p>It is also important to consider the site decommissioning plan within this context, though such restoration activities are not typically discussed as "offsets". Denison's decommissioning commitment is to return the land back to the Province of Saskatchewan for unrestricted surface land use post-closure. The Project's Conceptual Decommissioning Plan (CDP) is included in the draft EIS. The details of decommissioning and restoration will be refined over time as the Project proceeds. A Preliminary Decommissioning Plan (PDP) will be developed by Denison to support licensing and permitting</p>

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				<p>applications. Prior to executing decommissioning activities, Denison will prepare and submit a Detailed Decommissioning Plan (DDP) to regulators for their review and acceptance, which builds on the PDP.</p> <p>No other specific needs for "offset" have been identified based on the effects assessment.</p> <p>Denison will continue to engage with YNLR on topics of interest.</p>
379	YNLR (March 4, 2023)	EIS Executive Summary, p. 2	<p>The EIS Executive Summary outlines mitigation measures, monitoring requirements, and commitments needed for Denison to have confidence that Project is operating as planned and that the actual effects resulting from Project Construction, Operation, and Decommissioning are at or below predicted effects.</p> <p>Comment #7, Appendix A: Despite these reassuring statements, YNLR is aware that predictions may fall short, hence the need for close collaboration with Indigenous Peoples, communities, and organizations, including their input into the design and implementation of transparent and statistically-robust project monitoring programs.</p>	<p>Denison acknowledges the comment and is committed to ongoing engagement and dialogue with interested parties with respect to monitoring. Details of follow-up and monitoring plans will be prepared in consultation with Indigenous groups, other interested parties, and relevant federal and provincial agencies. YNLR will be informed throughout the monitoring program design and implementation process. Monitoring program design and implementation will be guided by the following principles: programs will meet regulatory requirements, programs will confirm the effectiveness of mitigation measures and predictions made in the assessment, programs will be implemented in an adaptive management framework (if/where applicable) to reduce effects during the lifetime of the Project, and programs will have spatial boundaries that are sufficiently extensive to measure EIS predictions.</p>
380	YNLR (March 4, 2023)	EIS Executive Summary, p. 2, 12, 44, 45 and 47	<p>Comments #8, 10, 21 and 22, Appendix A: YNLR remains concerned about the nature and disposition of project contaminants during and after the mining process.</p> <ul style="list-style-type: none"> <li>YNLR supports the Project outcome of lower aboveground disturbance, it retains concerns about the management inputs and outputs of the ISR method, particularly project water sources, quantity, and release along with its associated contaminants.</li> <li>The release of contaminants before and after the Project's completion worries YNLR, which sets a high priority on clean and abundant groundwater and surface water. The Indigenous People, communities, and organizations YNLR represents will be here long after mine decommissioning, so minimizing this risk with statements regarding the length of time it takes is not helpful.</li> </ul>	<p>Denison acknowledges the comment and concerns raised by YNLR. Denison believes the assessment of potential effects, such as those highlighted in the review comment, have been considered in a robust manner in the EIS and appropriate mitigations have been proposed. Denison is committed to ongoing engagement and dialogue with interested parties on key Project aspects such as that referenced in the review comment.</p> <p>With specific reference to site decommissioning the following is noted. Denison's decommissioning commitment is to return the land back to the Province of Saskatchewan for unrestricted surface land use post-closure. The Project's Conceptual Decommissioning Plan (CDP) is included in the draft EIS. The details of decommissioning and restoration will be refined over time as the Project proceeds. A Preliminary Decommissioning Plan (PDP) will be developed by Denison to support licensing and permitting applications. Prior to executing decommissioning activities, Denison will prepare and submit a Detailed Decommissioning Plan (DDP) to regulators for their review and acceptance, which builds on the PDP.</p>

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			<ul style="list-style-type: none"> <li>As with groundwater, YNLR places a high value on the quantity and quality of surface waters. Monitoring of water will be critical, and YNLR expects to be consulted and heavily involved with respect to this activity.</li> </ul>	Please also see Denison's response to YNLR comments 1, 2 and 3 above, for further relevant information.
381	YNLR (March 4, 2023)	EIS Executive Summary Freeze Wall, p. 12 and 13	<p>Comments #11, 12 and 13, Appendix A: Containment of the mining solution and uranium bearing solution within the mining area will be achieved through a defence-in-depth approach with three levels of containment.</p> <ul style="list-style-type: none"> <li>YNLR assumes that information and data exist with respect to the environmental safety of freeze wall technology in uranium mining operations within Saskatchewan. Has Denison reviewed these data and are they considered/presented as part of this EIS? If not, why not?</li> <li>What happens to the freeze wall and its retained contaminants at the end of the Project's life? – despite safeguards and remediation, it has potential to release contaminants after mining is completed.</li> <li>Monitoring and adaptive management are important components of sustainable uranium mining. YNLR expects to be consulted/included in the design and implementation of the Project's environmental monitoring programs.</li> </ul>	<p>Denison notes this comment is on the Executive Summary and that more detailed information is available in the main part of the draft EIS e.g., Section 2 Project Description and Section 7 Geology and Groundwater (and associated appendices).</p> <p>Ground freezing technology is well established and used widely throughout the world. Its use in a mining environment was pioneered in Saskatchewan's potash mining industry for shaft sinking activities, and later adapted for use in Saskatchewan's uranium industry. Ground freezing to control and eliminate groundwater from entering mining areas is a fundamental component of two existing Athabasca Basin underground uranium mines: Cameco Corporation's McArthur River Operation and Cigar Lake Operation. Freeze walls, when fully developed, are capable of withstanding significant external pressures because the ice in the pore voids greatly improves the bulk strength of the soil. For example, in the province of Saskatchewan, ground freezing is used to support the sinking of deep potash mine shafts, which must penetrate through the Mannville formation at a depth between 400 and 500 m below surface. The Mannville formation is often described as saturated, unconsolidated beach sand and it would not support shaft excavation in a thawed state. Freezing is used to create a structural and impermeable wall up to 5 m thick, which can resist a stress gradient driven by full hydrostatic and/or lithostatic pressures on the outside of the wall, and an open to atmosphere excavation within the shaft. This loading condition is much more extreme than any condition the freeze walls at the Phoenix deposit will experience because the interior side of the freeze wall where active ISR mining is occurring is not open to atmosphere and is fluid filled in the same way that the regional groundwater system is on the exterior side of the freeze wall, creating a balanced pressure system, where loading is equal on both the interior and exterior sides.. While freeze walls are very strong when fully developed, they are also plastic in nature. This means that they can slowly deform without failing in response to localized ground deformations. As the freeze wall deforms towards a lower stress zone, it maintains its thickness and integrity. While the above example referred to potash shafts, other examples can be drawn from the experience</p>



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				<p>at the McArthur River or Cigar Lake uranium mines. At McArthur River, open stopes are generated directly adjacent to a freeze wall that is a nominal 4 m thick. At Cigar Lake, open mine cavities 10 m high and several metres in diameter commonly exist within the frozen ground. Neither site has had a breach of the freeze wall during mining activity. Given that the freeze wall at Denison will be much thicker than at McArthur River and that it will be located up to 25 m from the ore zone, it is not anticipated that it will be exposed to a stress environment that will put it at risk.</p> <p>Since the mine design includes the freeze wall as a tertiary management strategy, movement of mining solution is restricted and contained horizontally during operations. Wellfield pumping is the primary form of containment and provides the hydraulic containment to keep mining solution within the 50 m mining area (see Section 2.2.1.4.2). During the operation phase, and under normal operational conditions there is no interaction between the mining zone and surface water or down gradient groundwater environments, and the groundwater assessment (Section 7) focuses on the post-decommissioning period following removal of the freeze wall, once the groundwater flow paths return to pre-mining conditions. During mining area remediation (see Section 2.3.3.1.1), the freeze wall will remain in place until decommissioning objectives are achieved. Refinement of the mining area decommissioning objectives and associated modelling will be done through updates to the Decommissioning Plan, and will be bounded by the objectives evaluated in the EIS. To carefully evaluate how constituents dissolved in the remediated groundwater within the mining area may migrate away from and interact with the environment, a rigorous numerical model of groundwater flow and chemical constituent behaviour along the groundwater flow path was used as a predictive tool. The model is based on proven scientific principles and processes (e.g., groundwater flow, contaminant transport, and geochemical reaction processes) and allowed future conditions to be evaluated. Migration of dissolved constituent concentrations along the groundwater flow path from the mining area to Whitefish Lake (the local surface water receptor) is predicted to take hundreds to thousands of years, with concentrations remaining below values that would result in an environmental risk.</p> <p>Given the nature of the ISR mining method that will be employed by the Project groundwater monitoring is an important consideration. The</p>





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				<p>groundwater monitoring plan would be developed in consideration of how Project facilities and activities could interact with the groundwater environment and groundwater users to define monitoring needs (locations, frequencies and constituents). Data generated from the groundwater monitoring plan would serve various purposes, such as to assess performance and the controls associated with the ISR process, demonstrate compliance with internal action levels, assess performance of emissions control systems, and contribute to the understanding of the potential influence of the Project on the groundwater environment. The groundwater monitoring program would demonstrate, during each Project phase, that:</p> <ul style="list-style-type: none"> <li>• excursions are not occurring; if excursions do occur, an early warning/timely signal will be provided of when and where they are occurring such that appropriate further evaluation and actions can be undertaken;</li> <li>• commitments made in the EA are being achieved; and</li> <li>• protection of groundwater end use/receiving environment is being achieved.</li> </ul> <p>The groundwater monitoring plan would be informed by existing local and traditional knowledge, ongoing engagement activities with interested parties, information generated by development of EIS and its supporting documents, relevant guidance, such as CSA Standard N288.7-15, Groundwater Protection Programs at Class I Nuclear Facilities and Uranium Mine and Mills as well as any applicable licenses, approvals, and permits.</p>
382	YNLR (March 4, 2023)	EIS Executive Summary, p.16	Comment #14, Appendix A: Will the released radon gas be of any concern to natural resources, such as fish and wildlife?	<p>Inhalation pathway to terrestrial wildlife and birds was included in the Ecological Risk Assessment (EcoRA). Please refer to the draft EIS Appendix 10-A Section 5 and an excerpt is provided below for reference:</p> <p>Exposure pathways consider the various routes by which radionuclides and/or chemicals may enter the body of the receptor, or for radionuclides, may exert effects from outside the body. Exposures to environmental media may be direct (i.e., by contact) or indirect (i.e., via constituent transport through the food chain). For each type of ecological receptor, draft EIS Appendix 10-A Table 5-5 summarizes the relevant exposure pathways to various environmental media including air, surface water, soil, and sediment. Airborne COPCs partition to soil and plants. For most COPCs, ingestion pathways dominate over inhalation and air immersion. The latter pathways</p>

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				<p>are considered minor pathways in the EcoRA, but inhalation was included in the IMPACT model and is thus included in draft EIS Appendix 10-A Table 5-5.</p> <p>Exposure to constituents that may deposit from air to surface water was not considered, as that pathway is considered negligible according to CSA N288.1-20. As such, a pathway of radon in air to aquatic receptors such as fish was not evaluated. Radiological dose to aquatic receptors is evaluated through water and sediment exposure, as appropriate based on the receptor's characteristics. For fish, aquatic plants, and aquatic invertebrates, contact with water and constituent uptake from water via bioaccumulation represents the main exposure pathway. Direct contact or uptake from sediment are also considered for benthic invertebrates and bottom-feeding fish.</p>
383	YNLR (March 4, 2023)	EIS Executive Summary, p.18 Land and Resource Use, p. 11- 50 to 11-52	<p>Comment #15, Appendix A: While Project water reuse is laudable, its overall conservation and management are significant concerns for YNLR, particularly the quantities removed from the ecosystem and the fate of contaminated water released back into the ecosystem from the Project that end up in Wollaston Lake. YNLR expects to be consulted/included in the design and implementation of the Project's environmental monitoring programs.</p> <p>Comment #85, Appendix A: YNLR remains concerned with the potential effects of Project contamination on culturally important natural resources. These concerns stem from the nature of the materials being mined, and the novel method (ISR) by which they are being extracted. Northern residents and Indigenous Peoples will be living here long after the mine is exhausted, thus effective monitoring is critical, as is the inclusion of impacted Aboriginal and Treaty rights holders in the design and implementation of arm's length, transparent, and statistically-robust monitoring programs.</p>	<p>The specific activity of water withdrawal from Whitefish Lake was assessed in the draft EIS, Section 8.1. The conservative estimate of water withdrawal would result in a reduction of flow of about 3% at times of low flow and the lake level could change by 1cm; this minor change is beyond the ability of monitoring techniques to practically measure, and the assessment concluded that the Project would not result in a significant effect on surface water quantity (hydrology). It is noted that there will be a separate permitting process that will consider water withdrawal for Project support that will occur following the EIS. Monitoring, including of water withdrawal rates and of potential effects (e.g., change in water flow, change in lake levels) will be implemented as the Project moves forward.</p> <p>Denison is committed to sharing information with Indigenous Communities of Interest (COIs) in a mutually agreed-upon fashion. Overall, the approach that will be utilized with respect to Indigenous community engagement will be aligned with Denison's Indigenous Peoples Policy. Denison's Indigenous Peoples Policy commits the company to respecting Indigenous knowledge and values regarding environmental stewardship and Indigenous peoples' connection to the land. The relevant monitoring plans for the species/resources that support a traditional diet will reflect and incorporate these values and will be reflective of the Indigenous COIs priorities. The monitoring plans when drafted will include more detail about communication methods and their effectiveness would be assessed through ongoing engagement with Indigenous communities.</p>

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384	YNLR (March 4, 2023)	EIS Executive Summary, p. 26	<p>Comments #16 and 17, Appendix A: YNLR supports Denison's corporate Indigenous Peoples Policy (IPP) and looks forward to collaborating with Denison to ensure that the Project's socioeconomic benefits reach local Indigenous People. YNLR acknowledges that Denison incorporated the YNLR report into the EIS and looks forward to further working with the company collaboratively regarding the rights of Indigenous People.</p> <p>YNLR is interested in an impact benefit agreement with Denison ensuring mutual benefits from the Project and co-management of environmental monitoring and mitigation.</p>	<p>As outlined in Denison's Indigenous Peoples Policy, Denison is committed to respecting Indigenous knowledge and values regarding environmental stewardship and Indigenous peoples' connection to the land, and to minimize potential effects, wherever possible.</p> <p>Through continued and focussed engagement with the YNLR since the YNLR identified its interest in the Project in 2019, Denison has come to better understand the Athabasca Denesų́líné communities' relationship to the Project site and current use of the areas for traditional purposes. Denison acknowledges that the Hatchet Lake Denesų́líné First Nation has the potential for established Indigenous and Treaty Rights proximal to the Project. The Hatchet Lake Denesų́líné First Nation, as represented by the YNLR will be identified as an Indigenous COI in the updated EIS. Denison continues to work with its Indigenous Communities of Interest with reserves and residential communities most proximal to the Project. Denison is committed to continual improvement in relation to such collaborative monitoring programs, in order to adapt to areas of interest which can change over time. YNLR will be informed throughout the monitoring program design and implementation process.</p> <p>A list of commitments, including specific commitment or mitigation measures related to Project effects as an outcome of engagement, made in the draft EIS, throughout the Federal information request period and the Provincial comment response period, will be included with the submission of the final EIS. For clarity, this would not include any private, confidential accommodations made under contractual agreements.</p>
385	YNLR (March 4, 2023)	EIS Executive Summary, p. 26, 28 and 59 Land and Resource Use, p. 11- 52 and 11-53	<p>Comments #18, 19 and 29, Appendix A:</p> <ul style="list-style-type: none"> <li>Indigenous People, communities, and organizations YNLR represents are rights holders, and are not to be arbitrarily grouped and treated as non-rights holders. This is an important distinction, as the rights they hold are constitutionally protected. This must be respected and recognized in the ongoing dialogue between the company and Indigenous Peoples through their chosen representatives, like YNLR.</li> <li>The Athabasca Denesų́líné people are rights holders and not stakeholders with respect to the Project. These rights include full access and use of the natural resources of the</li> </ul>	<p>Denison acknowledges the comment. In March 2019, Denison was notified by the YNLR that the Indigenous communities within the local Athabasca communities identified were interested in the Project and that YNLR held the Duty to Consult from these communities. Since receiving correspondence from the YNLR office in 2019 Denison has been collaboratively working with the YNLR office in a mutually agreed upon manner and will continue to do so.</p> <p>Denison's approach to identifying Indigenous COIs considered several factors as identified in Section 4.3.1 of the EIS. Being signatories of Treaty 10 was among, but not the sole applicable criteria, and not all Treaty 10 communities are considered as Indigenous COIs for the Project. Through continued and focussed engagement with the YNLR since the YNLR identified its interest in the Project in 2019, Denison has come to better understand the Athabasca</p>

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			<p>area. Any proposed infringement on these rights by the Project will need to be discussed well ahead of the Project's start date.</p> <p>Comment #86, Appendix A: The EIS minimizes effects of Lands and Waters availability and access on northern residents and Indigenous Peoples.</p> <p>Any impairment to the ability of Indigenous Peoples to utilize their Aboriginal and Treaty rights to the use of natural resources for their traditional activities constitutes an infringement of those constitutionally protected rights and must be justified. Rigorous examination of these impacts and negotiated compensation for these impacts should therefore be seriously considered.</p>	<p>Denesųliné communities' relationship to the Project site and current use of the areas for traditional purposes. Denison acknowledges that the Hatchet Lake Denesųliné First Nation has the potential for established Indigenous and Treaty Rights proximal to the Project. The Hatchet Lake Denesųliné First Nation, as represented by the YNLR will be identified as an Indigenous COI in the updated EIS.</p> <p>With respect to Denison's consideration of Indigenous Knowledge shared by the Athabasca Denesųliné knowledge sources, Denison notes that Tables 3.5-1 will be updated to better reflect where the YNLR's An Exploration of Recorded Athabasca Denesųliné Traditional Knowledge, Land Use and Occupancy Information in the Vicinity of the Denison Mines Wheeler River Project, which was included as an Appendix to the EIS, was considered and included as Table 3.5-1 does not reflect all instances the report was utilized.</p>
386	YNLR (March 4, 2023)	EIS Executive Summary, p. 52	<p>Comments #24 and 25, Appendix A: Fish, fish habitat, and fish health are all extremely important to northern people of Saskatchewan, and especially Indigenous People. Wild fish are a culturally important source of protein and provide economic opportunities in the form of commercial fishing and recreational angling.</p> <ul style="list-style-type: none"> <li>YNLR will be eager to and expects to be involved in collaborating with Denison in the future monitoring of these vital natural resources.</li> <li>Based on existing federal fishers legal and policy requirements, YNLR expects that all fish habitat destroyed or altered by the Project will be more than offset.</li> </ul>	<p>Denison has committed to collaborating with Indigenous Communities of Interest with reserves and residential communities most proximal to the Project on specifics of environmental monitoring regimes, suited to each of their interests and needs. As part of these programs, Denison and the Communities of Interest will be sharing information in an agreed-upon fashion. Denison expects that important country foods harvested for food and cultural purposes (e.g., moose, fish, etc.), surface water quality, and other areas of interest will form parts of these monitoring programs, including other areas of potential concern as they evolve over time. It is expected that the data collected through such monitoring regimes as described above would also be relevant to other Indigenous nations who may have interest in the Project.</p> <p>The specific potential for need for approval(s) under the Fisheries Act related to effects on fish and fish habitat (i.e., harmful alteration, disruption and destruction) resulting from Project activities has been assessed and presented in the draft EIS. Based on the assessment, Denison has determined that effects can be avoided and mitigated and therefore there will be no need for fish habitat offsets under the <i>Fisheries Act</i>.</p>
387	YNLR (March 4, 2023)	EIS Executive Summary, p. 54 and 55	<p>Comment#26, Appendix A: YNLR places a high priority on wildlife and wildlife habitat, from both ecological and sociocultural perspectives. Given the long-time frame of the Project, YNLR are concerned about the lack of significance</p>	<p>Through the EA process to date, Denison believes it has identified areas where offset may be required based on Project-Environment interactions. To this end, Denison has made a specific commitment to develop a Caribou Mitigation Plan (a preliminary draft of which has been submitted in response</p>



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			<p>associated with the residual and cumulative effects assessments of all ecological VCs. YNLR believes that the addition of this mine with its associated disturbances will have a cumulative effect on wildlife, especially for woodland caribou, as the area is already crisscrossed with many kilometres of seismic cut lines through the LSA, RSA and beyond (Figure 9.2-6, page 9-83, EIS and Appendix 9B).</p> <p>YNLR maintains that in order for the Project to meaningfully attempt to mitigate this concern, the company must work with Indigenous partners to create an effective habitat offset plan for this species. This should form part of any project approval. Such a plan should, for instance, include steps to restore the considerable caribou habitat degraded by past mineral exploration activities.</p>	<p>to provincial and federal EIS review comments) that includes provision for potential habitat offset. Details of the habitat offset will be developed in collaboration with Saskatchewan Ministry of Environment. Additional detail regarding the Caribou Mitigation Plan is also provide in the memo that is attached to this comment disposition table regarding the Project-specific cumulative effects assessment (CEA).</p> <p>It is also important to consider the site decommissioning plan within this context, though such restoration activities are not typically discussed as "offsets". Denison's decommissioning commitment is to return the land back to the Province of Saskatchewan for unrestricted surface land use post-closure. The Project's Conceptual Decommissioning Plan (CDP) is included in the draft EIS. The details of decommissioning and restoration will be refined over time as the Project proceeds. A Preliminary Decommissioning Plan (PDP) will be developed by Denison to support licensing and permitting applications. Prior to executing decommissioning activities, Denison will prepare and submit a Detailed Decommissioning Plan (DDP) to regulators for their review and acceptance, which builds on the PDP.</p> <p>Denison will continue to engage with YNLR on topics of interest. </p>
388	YNLR (March 4, 2023)	EIS Executive Summary	Comment #27, Appendix A: Indigenous People have brought forward concerns with the extensive network of seismic cut lines at several places in the EIS.	<p>Through the EA process to date, Denison believes it has identified areas where offset may be required based on Project-Environment interactions. To this end, Denison has made a specific commitment to develop a Caribou Mitigation Plan (a preliminary draft of which has been submitted in response to provincial and federal EIS review comments) that includes provision for potential habitat offset. Details of the habitat offset will be developed in collaboration with Saskatchewan Ministry of Environment. Additional detail regarding the Caribou Mitigation Plan is also provide in the memo that is attached to this comment disposition table regarding the Project-specific cumulative effects assessment (CEA).</p> <p>It is also important to consider the site decommissioning plan within this context, though such restoration activities are not typically discussed as "offsets". Denison's decommissioning commitment is to return the land back to the Province of Saskatchewan for unrestricted surface land use post-closure. The Project's Conceptual Decommissioning Plan (CDP) is included in the draft EIS. The details of decommissioning and restoration will be refined over time as the Project proceeds. A Preliminary Decommissioning Plan (PDP) will be developed by Denison to support licensing and permitting</p>

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				<p>applications. Prior to executing decommissioning activities, Denison will prepare and submit a Detailed Decommissioning Plan (DDP) to regulators for their review and acceptance, which builds on the PDP.</p> <p>Denison will continue to engage with YNLR on topics of interest.</p>
389	YNLR (March 4, 2023)	EIS Executive Summary, p. 59	Comment #28, Appendix A: While the overall direct footprint of the Project is relatively small, YNLR maintains that any wildlife habitat destroyed or altered by the Project should be more than offset or compensated for in some fashion. One example would be the additional disturbance created by the proposed Highway 914 extension. This needs to be accounted for by Denison.	<p>To be clear, Denison's proposed Project does not require any extension to the existing Highway 914. There is a Highway 914 extension project under evaluation by the Ministry of Highways, but this project is not related to or ancillary to the Wheeler River Project.</p> <p>As noted in response to other comments, through the EA process to date, Denison believes it has identified areas where offset may be required based on Project-Environment interactions. To this end, Denison has made a specific commitment to develop a Caribou Mitigation Plan (a preliminary draft of which has been submitted in response to provincial and federal EIS review comments) that includes provision for potential habitat offset. Details of the habitat offset will be developed in collaboration with Saskatchewan Ministry of Environment. Additional detail regarding the Caribou Mitigation Plan is also provide in the memo that is attached to this comment disposition table regarding the Project-specific cumulative effects assessment (CEA).</p> <p>It is also important to consider the site decommissioning plan within this context, though such restoration activities are not typically discussed as "offsets". Denison's decommissioning commitment is to return the land back to the Province of Saskatchewan for unrestricted surface land use post-closure. The Project's Conceptual Decommissioning Plan (CDP) is included in the draft EIS. The details of decommissioning and restoration will be refined over time as the Project proceeds. A Preliminary Decommissioning Plan (PDP) will be developed by Denison to support licensing and permitting applications. Prior to executing decommissioning activities, Denison will prepare and submit a Detailed Decommissioning Plan (DDP) to regulators for their review and acceptance, which builds on the PDP.</p> <p>No other specific needs for "offset" have been identified based on the effects assessment.</p>
390	YNLR (March 4, 2023)	EIS Executive Summary Monitoring Programs, p. 74	Comment #30, Appendix A: YNLR expects to be included as part of the design and implementation of all monitoring programs. All such programs should be transparent, arm's length, include significant	Denison has committed to collaborating with Indigenous Communities of Interest with reserves and residential communities most proximal to the Project on specifics of environmental monitoring regimes, suited to each of their interests and needs. As part of these programs, Denison and the



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			involvement and participation of Indigenous People, communities, and organizations and be statistically robust.	Communities of Interest will be sharing information in an agreed-upon fashion. Denison expects that important country foods harvested for food and cultural purposes (e.g., moose, fish, etc.), surface water quality, and other areas of interest will form parts of these monitoring programs, including other areas of potential concern as they evolve over time. It is expected that the data collected through such monitoring regimes as described above would also be relevant to other Indigenous nations who may have interest in the Project.
391	YNLR (March 4, 2023)	EIS Executive Summary, p. 76	<p>Comment #31, Appendix A: The EIS states: "On the basis of the Project information and related evaluation and assessment of effects, Denison believes that the Project can be constructed, operated, and decommissioned in a manner that is not likely to cause significant adverse effects to the biophysical or human environments."</p> <p>This is perhaps an overly optimistic conclusion. However, YNLR is willing to discuss how the company moves forward and is interested in creating more formal processes to achieve this, such as the signing of an impact benefit agreement.</p>	Denison notes YNLR's perspective on this.
392	YNLR (March 4, 2023)	Section 1.0 Project Introduction and Overview, p. 1-1, 1-5 and 1-18	<p>Comments #32 and 33, Appendix A: The Project is located within Nuhenéné and of principal concern to YNLR is that the Project be fully sustainable with respect to cultural rights and traditions, socioeconomic equity, and environmental protection. To achieve this end, YNLR expects Denison to work collaboratively with the people of Nuhenéné through the YNLR office.</p> <p>YNLR supports the sustainable mining of uranium within Nuhenéné.</p>	In March 2019, Denison was notified by the YNLR that the Indigenous communities within the local Athabasca communities identified were interested in the Project and that YNLR held the Duty to Consult from these communities. Since receiving correspondence from the YNLR office in 2019 Denison has been collaboratively working with the Nuhenéné through the YNLR office in a mutually agreed upon manner and will continue to do so.
393	YNLR (March 4, 2023)	Section 8.0 Aquatic Environment, p. 8-38	Comment #34, Appendix A: The EIS recognized that the utilization of water will result in an adverse impact on the drainage but dismissed the issue given that a reduction in the stream flow rate is expected to be less than 3%. It would therefore be prudent to closely monitor the flow regime to identify possible adverse effects throughout the life of the Project.	In the draft EIS, conservative estimate of water taking would result in a reduction of flow of about 3% at times of low flow and the lake level could change by 1cm. While this incrementally small change in water quantity is beyond the ability of monitoring techniques to practically measure, Denison will conduct hydrological monitoring. Monitoring will likely include streamflow and lake level monitoring as well as continuous monitoring with stage dataloggers with details of monitoring plans to be finalized to support Project permitting and licensing.

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394	YNLR (March 4, 2023)	Section 8.0 Aquatic Environment, p. 8-40, 8-42, 8-98 and 8-99	<p>Comment #35, Appendix A: Utilizing the extent of the LSA and the fact that it does not overlap with projects located within the same drainage system seems to be quite arbitrary and convenient. By this criterion, each mine does not trigger a cumulative effect according to the EIS, although they are all additive to the water flow regime. This methodology then arbitrarily and conveniently determines that "mitigation measures" for each of the mines is not warranted since there was a determination of no cumulative effects in sections 8.1.7.1, 8.1.7.2, 8.1.7.3 and 8.1.7.4.</p> <p>Comment #36, Appendix A: The determination of Cumulative Effects Characterization and the resultant Determination of Significance is highly subjective, therefore a much more extensive monitoring program is required. Such a program should start prior to the construction phase and carry on at least several years into the operation portion of the Project to at least demonstrate local and cumulative effects of mining projects within the watershed.</p> <p>Comment #37, Appendix A: YNLR agrees that the hydrological monitoring program remain throughout the life of the Project but as per the above, the study should have a much broader mandate in order to measure local and regional effects on VCs.</p> <p>Comment #41, Appendix A: YNLR is concerned that the conclusion that the residual effects from Project operations will not have an adverse effect on surface water is highly speculative. Again, this indicates the need for a comprehensive monitoring program to validate the speculation on water quality with rigorous statistical evidence.</p> <p>Comment #42, Appendix A: YNLR questions the logic track that states, "additional mitigation measures not warranted" because of the determination of no cumulative effects, then "a determination of significance is not warranted" as no cumulative effects were identified for water quality because surface water impacts are</p>	<p>In terms of watersheds and nearby uranium operations, only Key Lake Operation's drainage area interacts with the Wheeler River Project. Drainages from both operations would combine at Russell Lake. As such, the Key Lake Operation was included as an existing project in the CEA sections of the aquatic environment. The drainages associated with McArthur River Operation and Cigar Lake Operation are separate from the Project.</p> <p>The RSA is the area that surrounds and includes the LSA, and was established to assess the potential, largely indirect effects of the Project, as well as other activities, in a regional context. The RSA is large enough to capture the extent of potential effects (i.e., zone of influence) on a VC and defines the area within which cumulative effects may occur (i.e., cumulative effects assessment boundary). The RSA for the Surface Water Quality VC is bounded by the regional watershed area in which the Project Area is located. The RSA for this assessment is based on the whole watershed within which the Project is located and extends downstream to include Russell Lake (refer to draft EIS Figure 8.2-3). Given the very low magnitude of predicted changes in water quantity in the LSA (in the draft EIS, conservative estimate of water taking would result in a reduction of flow of about 3% at times of low flow and the lake level could change by 1cm), it would not be measurable further downstream into the RSA.</p> <p>The CEA considers whether residual adverse effects of the Project on a given VC will overlap spatially and/or temporally with the same residual adverse effects on the VC resulting from other past, present, and reasonably foreseeable projects or activities. The CEA follows standard methodology as per provincial (e.g., Guidelines for an Environmental Assessment) and federal guidance (e.g., Assessing Cumulative Environmental Effects under the Canadian Environmental Assessment Act, 2012).</p> <p>Cumulative effects assessment is important to Indigenous communities in general because incremental effects to the environment can weaken resource economies, affect important resources such as plants, fish, and wildlife, affect rights-based and cultural activities, and affect both the health of wildlife and humans. Indigenous perspectives can be complementary to the CEA for the Project, and Denison acknowledges the important relationship of the Indigenous Communities of Interest to the lands and waters. The Indigenous Communities of Interest of ERFN and the Kineepik Métis Local #9 at</p>



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			<p>expected to remain localized...for all the mining operations in the region. Impacts on water quality and</p> <p>mitigation measures “not warranted” should be demonstrated through field studies and</p> <p>research rather than relying on a theoretical modelling approach.</p>	<p>Pinehouse (KML) have shared their Indigenous Knowledge on past, present, and predicted cumulative effects through the following:</p> <ul style="list-style-type: none"> <li>• Wheeler River Project – Summary of Health and Socio-Economic Study Results (ERFN and SVS 2022a);</li> <li>• Wheeler River Project - Summary of Traditional Knowledge Study Results (ERFN and SVS 2022b);</li> <li>• Kineepik Valued Ecosystem Components – KML Pre-statement for Denison EIS (KML and NVP 2022); and</li> <li>• Response to the Environment Impact Assessment For the proposed Ministry of Highways 914 Extension Project (KML and Limnos Environmental 2022).</li> </ul> <p>These perspectives on cumulative effects have been summarized in Section 3.4.8 of Section 3. Denison and the Communities of Interest agreed on the high value of this contribution being part of the EIS.</p>
395	YNLR (March 4, 2023)	Section 8.0 Aquatic Environment, p. 8-92, 8-93 and 8-96	<p>Comment #40, Appendix A: There are several comments in the EIS that recognize the potential for a negative effect on water quality from the site water management system into Whitefish Lake. Statements taken from residents have identified concerns about the release of elements such as “mercury” because of the mining activity. While the report recognized that detectable concentrations of mercury will not be produced, the local comment should be considered as a proxy for a variety of contaminants such as selenium, arsenic, cobalt, zinc, etc., as well as the concern expressed by residents, rather than being taken literally as mercury as the only contaminant of concern.</p> <p>YNLR reiterates that concerns about water quality are warranted given that the EIS indicates that there will be a continuous (year-round) average discharge of water from the mine site of more than 36,000 litres/hour for the entire life of the Project. This discharge will be especially evident during low flow periods.</p>	<p>The comment from YNLR references text in Section 8.2 of the draft EIS which is the water quality assessment. Please refer to draft EIS Section 8.1 for the water quantity assessment and information on potential changes in water flow.</p> <p>Denison acknowledges the concern raised by YNLR and believes the water quality assessment, including the assessment of potential water quality effects on ecological and human health, presented in the EIS and supporting documentation is robust and supports the conclusions drawn. With regard to YNLR's concerns around contaminants in treated effluent, we refer YNLR to Appendix 10-A Environmental Risk Assessment (ERA) for Wheeler River. The ERA predicts and assesses the risk to representative human and ecological receptors resulting from exposure to radiological and non-radiological substances expected to be released throughout the Project Phases. The ERA encompasses a human health risk assessment (HHRA) and an ecological risk assessment (EcoRA), which have been prepared to be compliant with Canadian Standards Association Group (CSA) N288.6-12 Environmental Risk Assessments for Class I Nuclear Facilities and Uranium Mines and Mills (CSA, 2012). It also meets the requirements for an ERA outlined in Section 4.1 of Regulatory Document 2.9.1, Environmental Principles, Assessments and Protection Measures (CNSC, 2020). The ERA has been developed with current science and current regulatory attitudes in mind. The predicted radiological and non-radiological to human and ecological receptors demonstrate that the</p>



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				Project can be conducted in a manner that is protective of human and ecological health.
396	YNLR (March 4, 2023)	Section 8.0 Aquatic Environment, p. 8-102	Comment #43, Appendix A: While appreciating current water quality standards, YNLR suggests that monitoring programs be designed to more than meet regulatory requirements of the license conditions. The EIS recognizes that the Project area lies primarily within an undisturbed area of the boreal forest (aside from the extent of seismic activity carried out within this area). YNLR would like to be involved in specific follow-up and monitoring plans as identified in the EIS.	<p>As noted in the draft EIS, Section 8.2.9 "Specific follow-up and monitoring plans will be prepared to refine and finalize approach in consultation with Indigenous groups, other interested parties, and relevant federal and provincial agencies with interest in the development and implementation of this VC specific program." The monitoring and follow-up program will include measurement of water quality parameters to meet regulatory criteria (i.e., provincial discharge permits, Metal and Diamond Mining Effluent Regulations [MDMER; Government of Canada 2022] and CSA N288.4-19 (CSA Group 2019). At a minimum, this will include collection of non-radiological parameters (e.g., metals, nutrients, hardness, temperature, pH, TDS, TSS, and sulphate) and radiological parameters.</p> <p>Denison has committed to collaborating with Indigenous Communities of Interest with reserves and residential communities most proximal to the Project on specifics of environmental monitoring regimes, suited to each of their interests and needs. As part of these programs, Denison and the Communities of Interest will be sharing information in an agreed-upon fashion. YNLR will be informed throughout the monitoring program design and implementation process. Monitoring program design and implementation will be guided by the following principles: programs will confirm the effectiveness of mitigation measures and predictions made in the assessment, programs will be implemented in an adaptive management framework (if/where applicable) to reduce effects during the lifetime of the Project, and programs will have spatial boundaries that are sufficiently extensive to measure EIS predictions.</p> <p>Additionally, regulators will be involved with setting specific requirements for follow-up and monitoring, as well as reporting, through licence conditions (CNSC) and provincial approvals. A number of monitoring and reporting requirements will be generated through the completion of the environmental assessment process. Denison and its lifecycle regulators will be in regular communication throughout the life of the Project as part of routine reporting, site inspections, licence and permit renewals. Denison is committed to ongoing engagement with regulators and recognizes that this will include information sharing related to follow-up and monitoring results and any needed adaptive management plans. It is also noted for further reference</p>



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				that there are existing, non-Denison monitoring programs such as the CNSC's Independent Environmental Monitoring Program ( <a href="https://nuclearsafety.gc.ca/eng/resources/maps-of-nuclear-facilities/iemp/index.cfm">https://nuclearsafety.gc.ca/eng/resources/maps-of-nuclear-facilities/iemp/index.cfm</a> ), and the Eastern Athabasca Regional Monitoring Program ( <a href="http://www.earmp.ca/">www.earmp.ca/</a> ). Results from these programs provide relevant information and can complement Denison's Project-specific monitoring program. One forum for discussion of monitoring results is the Northern Saskatchewan Environmental Quality Committee ( <a href="https://www.saskatchewan.ca/residents/first-nations-citizens/saskatchewan-first-nationsmetis-and-northern-initiatives/northern-saskatchewan-environmental-quality-committee">https://www.saskatchewan.ca/residents/first-nations-citizens/saskatchewan-first-nationsmetis-and-northern-initiatives/northern-saskatchewan-environmental-quality-committee</a> ).
397	YNLR (March 4, 2023)	Section 8.0 Aquatic Environment Fish and Fish habitat, p. 8-117, 8-140, 8-141, 8-153, 8-252 and 11-50	<p>Comment #44, 45, 46, 49, 52 and 84, Appendix A: It is noted that the aquatic survey and fish sampling were carried out in 2016, which is now somewhat dated.</p> <p>It is also noted that work that would affect fish and fish habitat could/should only be carried out between July 16 and September 30th, as both spring and fall spawning species were collected in the fish sample.</p> <p>YNLR acknowledges that the amount of fish habitat directly affected by the Project is small. However, a much bigger concern is the indirect effects of increased human activity in the area over several decades and beyond, particularly with respect to the consequent increase in fish harvest. This will directly affect the ability of Indigenous Peoples to exercise their Aboriginal and Treaty rights.</p> <p>Related comments:</p> <ul style="list-style-type: none"> <li>YNLR would be eager to see how "a fish salvage plan to relocate fish prior to in-water works" might be carried out? Such an approach may not be practicable or effective.</li> <li>While the sentiment of the above fish management strategy is laudable, it is not practical in terms of preserving fish numbers given the increased human access to the lakes that the mining activity will create.</li> <li>The EIS does recognize the value of sucker species to residents, which is a positive step, as these fish species are</li> </ul>	<p>The response to the review comment are organized by theme, consistent with the comment.</p> <p><u>Fish salvage</u>: Details of a fish salvage program, if required, will be developed to support Project permitting and licensing. Briefly, for any in-water work, the work area would be isolated from rest of the waterbody. Any fish remaining inside the isolated work area would be captured and relocated outside of the work area. Based on the experience of Denison and its SME team it is noted that such programs are implemented successfully on a routine basis with effective and site-specific planning.</p> <p><u>Indirect effects related to increased human activity in the area</u>: Please note that the Project will not change public access to the area. The existing gate on Highway 914 near Cameco's Key Lake Operation will remain in place and no changes to the gate and the process for controlling access to Highway 914 north of the Key Lake Operation are proposed as part of the Wheeler River Project. The proposed operation is fly-in, so Project related traffic to the area would only be related to deliveries of materials to and from the site. On-site staff will not have access to personal (or company) vehicles and will largely be "confined" to the camp and work areas during their shifts. Section 11 of the draft EIS provides the assessment of potential Project effects on Indigenous Land and Resource Use (Section 11.1) and Other Land and Resource Use (Section 11.2). The mitigation measures proposed in the aquatic and terrestrial assessments translated into undetectable changes in resource availability to existing and future users and rightsholders.</p> <p><u>Recreational fishing</u>: As described in the draft EIS and as noted above, workforce members will be transported to/from site via a fly-in/fly-out</p>

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			<p>netted for a variety of purposes. Increased local traffic will also undoubtedly provide more access for both subsistence and recreational fishing. As part of the mitigation measures YNLR proposes working with authorities to regulate recreational fishing prior to the onset of the construction phase of the Project and revisiting these regulations at intervals throughout the mine's operation and decommissioning.</p> <ul style="list-style-type: none"> <li>• YNLR disagrees with the assumptions used (Section 8.3.7.2 to 8.3.7.5), which "assume" specific monitoring and follow-up for Fish and Fish Habitat related to cumulative effects is not warranted.</li> <li>• YNLR would like to be involved in designing and carrying out of a monitoring program, which would test the "no cumulative effect" assumption.</li> <li>• YNLR would like to be involved in a monitoring program for fish health. Further, this monitoring program should continue for the life of the Project or until it is demonstrated that the current filtering programs are effective.</li> </ul>	<p>rotation and will, therefore, not use ground travel options during shift changes, which will eliminate fishing on local lakes during commutes to/from the site and during time off work. Denison site vehicles will not be available for recreational purposes. While at the Project site and off duty, workers may opt to fish local waterbodies. To protect sustainable use of resources, only catch and release of fish will be encouraged, and fish storage or cooking facilities will not be provided. To prevent entry of land users from entering the Project Area, Denison will control access to the property with both a north and south security gate. Overall, given a lack of resources to access fishing locations and store fish harvests, workforce fishing is expected to cause minimal disturbances to local users.</p> <p><u>Monitoring:</u> In the draft EIS, Denison outlines its plans to conduct fish health monitoring in tandem with surface water quality, sediment quality, benthic invertebrate and fish and fish habitat sampling. Sampling locations will be co-located to facilitate comparison to water quality and sediment quality characteristics. Denison has committed to collaborating with Indigenous Communities of Interest with reserves and residential communities most proximal to the Project on specifics of environmental monitoring regimes, suited to each of their interests and needs. As part of these programs, Denison and the Communities of Interest will be sharing information in an agreed-upon fashion. YNLR will be informed throughout the monitoring program design and implementation process. Monitoring program design and implementation will be guided by the following principles: programs will meet regulatory requirements, programs will confirm the effectiveness of mitigation measures and predictions made in the assessment, programs will be implemented in an adaptive management framework (if/where applicable) to reduce effects during the lifetime of the Project, and programs will have spatial boundaries are sufficiently extensive to measure EIS predictions. Denison is committed to maintaining positive relations with all local interested parties and will be open to discussions on any issues or concerns that arise.</p>
398	YNLR (March 4, 2023)	Section 8.0 Aquatic Environment, p. 8-151	Comment #47, Appendix A: The statement on page 8-151 recognizes that the discharge of treated effluent during the Operation and Decommissioning phase may interact with Cameco's current releases contributing to cumulative effects.	The requested information is presented in draft EIS Section 8.2.7 Cumulative Effects (surface water quality). The summary referenced in the YNLR comment is made in Section 8.3 Fish and Fish Habitat. Specific monitoring and follow-up plans for the Surface Water Quality VC will be prepared to refine and finalize the approach and specific metrics following consultation



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			It is recommended that a study be undertaken to assess the basin effect of water discharges.	with Indigenous groups, other interested parties, and relevant federal and provincial agencies with interest in the development and implementation of this VC-specific program.
399	YNLR (March 4, 2023)	Section 8.0 Aquatic Environment, p. 8-152	<p>Comment #48, Appendix A: Sediment quality of Whitefish Lake and downstream is not "anticipated" to overlap with the Key Lake Operation.</p> <p>It would be prudent to test this hypothesis to ensure that water quality in the flowage is maintained given the high value placed on these waters by residents.</p>	Any changes in sediment quality would be preceded by changes in surface water quality. Should the surface water quality monitoring program identify changes beyond those predicted in the EIS, adaptive management measures would be implemented and may include monitoring of sediment quality further downstream in the watershed. In addition, the Environmental Effects Monitoring (EEM) program under the Diamond Mining and Effluent Regulations will provide a framework for monitoring changes in the aquatic environment.
400	YNLR (March 4, 2023)	Section 8.0 Aquatic Environment, p. 8-232	<p>Comment #51, Appendix A: Water management during construction indicates that there is to be no planned discharge to Whitefish Lake.</p> <p>If a release of water from the mine site becomes necessary, in addition to monitoring suspended solid levels, there should be a communication plan to inform area residents of the pending release and its duration.</p>	<p>During Construction, no effluent is expected to be released to the aquatic environment. Contact water stored in the Clean Waste Rock Pond during Construction will be held onsite until the Industrial Wastewater Treatment Plant (IWWTP) is commissioned. At that time the water from the pond would be conveyed to the IWWTP, treated, and released to Whitefish Lake per permit / license requirements. The sequencing of Construction activities will occur in a logical manner based on Project execution plans. For example, construction of the wellfield runoff pond will be prioritized during the early part of Construction, and it will be able to hold 38,200 m3 of water. This will provide contingency and additional water storage capacity if contact water produced exceeds estimates or the volume available in the Clean Waste Rock Pond. Other secondary contingency measures are also available should the volume of water requiring management exceed site infrastructure storage volume. Depending on the situation and volume of water needing management, this could include for example use a hydrovac for offsite disposal. Alternatively, in the instance that there is a planned release of water during construction, this would be permitted by Saskatchewan Ministry of Environment.</p> <p>In accordance with our Indigenous Peoples Policy, Denison is committed to collaborating with Indigenous peoples and communities to build long-term, respectful, trusting, and mutually beneficial relationships. Denison has identified key objectives respecting Indigenous engagement associated with the Project:</p> <ul style="list-style-type: none"> <li>• Build and maintain authentic relationships based on a foundation of trust, good faith, and transparency.</li> </ul>

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				<ul style="list-style-type: none"> <li>Create a respectful dialogue process that promotes communication and collaboration among Denison and Indigenous communities, in a timely and accurate fashion.</li> <li>Understand how the proposed development of the Project may affect the interests of Indigenous peoples (including Indigenous and/or Treaty Rights), and work with Indigenous peoples to avoid, mitigate, or otherwise address effects, while also collaborating to maximize potential positive effects.</li> </ul> <p>In addition, Denison is required to have a Public Information Disclosure Protocol as set out by the CNSC. This would include any notification to the wider public of unplanned discharges.</p>
401	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment Fig 9. 2-6, p. 9-83	<p>Comment #53, Appendix A: YNLR is concerned about the potential residual and cumulative effects of the extensive seismic network on the soils of the RSA and LSA.</p> <p>Were these and other potential network effects considered in the analyses?</p>	Denison notes that there are a number of review comments that have a similar theme. Rather than repeating the same narrative in this table Denison has developed an inclusive technical memo to provide a more coherent and complete response. Accordingly, please refer to the attached memo RE: Wheeler River Project Environmental Impact Statement - Denison's Response to Woodland Caribou Habitat Comments.
402	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment Appendix 9B, p. 60 Also, p. 9-68, Fig 9. 2-9, 9-133, 9-139 and 9-149	<p>Comment #54 and 55, Appendix A: Appendix 9B of the EIS states that 100% of the LSA and 82% of the RSA are already disturbed by buffered anthropogenic disturbances in the form of exploration lines, exploration trails, and seasonal roads. During the consultation process, residents raised the issue of the high degree of human disturbance and highlighted concerns about the broad network of linear disruptions in numerous places across the EIS.</p> <p>As with the Project soils, YNLR is concerned about the potential residual and cumulative effects of the extensive seismic network on the vegetation and wetlands of the RSA and LSA, particularly from edge effects. Were these and other possible effects of the network considered? If so, how were they included?</p>	Denison notes that there are a number of review comments that have a similar theme. Rather than repeating the same narrative in this table Denison has developed an inclusive technical memo to provide a more coherent and complete response. Accordingly, please refer to the attached memo RE: Wheeler River Project Environmental Impact Statement - Denison's Response to Woodland Caribou Habitat Comments.
403	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment, p. 9-168	Comment #56, Appendix A: Wilson et al. (2018) recently summarized the home ranges of 25 woodland caribou populations in Canada. The average home range varied 28-fold, from 312 to 8,838 sq. km.	Denison notes that there are a number of review comments that have a similar theme. Rather than repeating the same narrative in this table Denison has developed an inclusive technical memo to provide a more coherent and complete response. Accordingly, please refer to the attached memo RE:

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			The RSA delineated for assessing cumulative effects on caribou (40,174 ha ~ 402 sq.km.) is thus inadequate for this purpose, and the conclusions of project residual and cumulative effects non-significance are highly suspect. The same could be said for other wide-ranging species such as wolverine.	Wheeler River Project Environmental Impact Statement - Denison's Response to Woodland Caribou Habitat Comments.
404	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment Fig 9. 2-9	Comment #57, Appendix A: Was the current RSA anthropogenic disturbance estimate (599 ha) inclusive of the many kilometres of existing seismic cut lines? Did the estimate include consideration of the compounding 'edge effects' from these linear disturbances? If not, why not? See previous comments on the very high level of existing human disturbance in the LSA and RSA highlighted in Appendix 9B.	Denison notes that there are a number of review comments that have a similar theme. Rather than repeating the same narrative in this table Denison has developed an inclusive technical memo to provide a more coherent and complete response. Accordingly, please refer to the attached memo RE: Wheeler River Project Environmental Impact Statement - Denison's Response to Woodland Caribou Habitat Comments.
405	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment, p. 9- 239	Comment #58, Appendix A: Again, the direct and indirect effects of the existing seismic disturbance seem not to have been considered in this assessment, particularly because wolverines 'avoid linear infrastructure.' In fact, one can also see that woodland caribou avoid areas of historic seismic disturbance by directly comparing the figures on page 9-139, EIS (vegetation) and 9-202, EIS (caribou sightings). Appendix 9B gives a summary of the impacts of linear disturbances on boreal forest wildlife.	Denison notes that there are a number of review comments that have a similar theme. Rather than repeating the same narrative in this table Denison has developed an inclusive technical memo to provide a more coherent and complete response. Accordingly, please refer to the attached memo RE: Wheeler River Project Environmental Impact Statement - Denison's Response to Woodland Caribou Habitat Comments.
406	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment, 9. P- 239	Comment #59, Appendix A: Buffered disturbance is included in Appendix 9B but appears to have been ignored in the effects assessment.  Was the 500m buffering of anthropogenic disturbances also applied to the network of seismic cut lines to account for edge effects? If not, why not?	Denison notes that there are a number of review comments that have a similar theme. Rather than repeating the same narrative in this table Denison has developed an inclusive technical memo to provide a more coherent and complete response. Accordingly, please refer to the attached memo RE: Wheeler River Project Environmental Impact Statement - Denison's Response to Woodland Caribou Habitat Comments.
407	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment Table 9.3-23 and p. 9-270	Comment #60, Appendix A: Is the amount of initial 'available woodland caribou habitat' inclusive of the direct and indirect seismic cutline network effects? If not, why not? Irrespective of this, it appears that the LSA is being written off for woodland caribou for decades to come. See above comments with respect to Appendix 9B.	Denison notes that there are a number of review comments that have a similar theme. Rather than repeating the same narrative in this table Denison has developed an inclusive technical memo to provide a more coherent and complete response. Accordingly, please refer to the attached memo RE: Wheeler River Project Environmental Impact Statement - Denison's Response to Woodland Caribou Habitat Comments.
408	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment,	Comment #61, 62, 82, 83, Appendix A: The EIS correctly highlights the cultural importance of moose and woodland caribou to Indigenous People, which underscores YNLR's	Denison notes that there are a number of review comments that have a similar theme. Rather than repeating the same narrative in this table Denison has developed an inclusive technical memo to provide a more coherent and

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		p. 9- 275, 9-280, 9-300, Section 11.0 Land and Resource Use, p. 11- 46 and 11-	<p>concerns regarding the conclusions of the residual and cumulative effects assessments of these species, particularly for caribou.</p> <p>YNLR questions the optimistic conclusions drawn by Denison regarding the ongoing availability of woodland caribou for traditional use.</p> <ul style="list-style-type: none"> <li>The buffered direct habitat loss alone eliminates the LSA and RSA for caribou habitation for decades to come (Appendix 9B), so how can it 'sustain the regional woodland caribou population' in any way?</li> <li>The reference to 'proven' mitigation measures is rather vague and requires further explanation.</li> <li>YNLR is unaware of these proven mitigation measures, other than isolation from human disturbance.</li> <li>YNLR disagrees with this overall residual effects conclusion for these wildlife VCs, especially in regard to woodland caribou (Appendix 9B), for the following reasons:</li> </ul> <p>(i) Comment #64, Appendix A: In addition, the reason why SK1 holds one of the very few sustainable caribou populations despite a high level of forest fire, is because of currently very low levels of human intrusion, which suggests that the provincial and federal approval processes, BMPs, and mitigation measures have not been sufficient in the rest of the species' range throughout the entirety of Canada.</p> <p>(ii) Comment #83, Appendix A: Woodland caribou populations have strongly declined across Canada despite all types of project mitigation, so YNLR doubts that similar mitigation efforts will be effective here. A woodland caribou 'management' plan is not sufficient. YNLR believes that, at a minimum, Denison should commit to an aggressive caribou habitat offset plan before work on the Project begins. In addition, it is unclear what constitutes this proposed mitigation. A caribou management plan is proposed (Section 9), however nothing short of a full caribou habitat offset plan will suffice to sustain the region's population. Offset activities should include the ongoing restoration of the existing seismic lines, among</p>	<p>complete response. Accordingly, please refer to the attached memo RE: Wheeler River Project Environmental Impact Statement - Denison's Response to Woodland Caribou Habitat Comments.</p>



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			other things. This work is best accomplished in consultation and collaboration with Indigenous People, their communities, and organizations.	
409	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment, p. 9- 280, 9-287 and 9-302	<p>Comment #62, 63, 64, 66, 67 and 68, Appendix A: Past and future direct and indirect effects of seismic line clearing appear to have been ignored in this assessment (Appendix 9B). The fact that most caribou sightings occurred away from seismically disturbed areas independent of habitat type supports this observation.</p> <p>YNLR disagrees with this overall residual effects conclusion for these wildlife VCs, especially in regard to woodland caribou (Appendix 9B), for the following reasons:</p> <ul style="list-style-type: none"> <li>• Comment # 63 and 64, Appendix A: The extent of past seismic line cutting is very high for both the LSA and RSA. However, direct and indirect (edge) effects on wildlife, especially woodland caribou, seem to have been overlooked or minimized. Future exploration disturbance should have been estimated and included based on the rate of historic disturbance if nothing else.</li> <li>• Comment #67, Appendix A: Most of these mitigation measures (listed on p. 9-308) are quite superficial and would contribute little to the long-term conservation of wildlife in the RSA and LSA. The proposed caribou management plan needs to be a fully developed Caribou Habitat Offset Plan given the extent of already altered habitat by seismic activities. Also note that this has a high potential for a direct impact on Aboriginal and Treaty rights. More, some Indigenous People will likely take offence at the idea of the company 'facilitating access' to their inherent Treaty Rights. Significant consultation and collaboration with Indigenous People is required.</li> <li>• Comment #69, Appendix A: Concern about the extensive network of seismic cut lines were also raised by Indigenous People at several places in the EIS.</li> </ul>	Denison notes that there are a number of review comments that have a similar theme. Rather than repeating the same narrative in this table Denison has developed an inclusive technical memo to provide a more coherent and complete response. Accordingly, please refer to the attached memo RE: Wheeler River Project Environmental Impact Statement - Denison's Response to Woodland Caribou Habitat Comments.

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410	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment	<p>Comment #65, Appendix A: Is it not possible to conduct modern mineral exploration without cutting miles and miles of seismic lines across the boreal forest?</p> <p>Denison, as a progressive company, will consider advances in technology</p>	Denison notes that there are a number of review comments that have a similar theme. Rather than repeating the same narrative in this table Denison has developed an inclusive technical memo to provide a more coherent and complete response. Accordingly, please refer to the attached memo RE: Wheeler River Project Environmental Impact Statement - Denison's Response to Woodland Caribou Habitat Comments.
411	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment	<p>Comment #68, Appendix A: Section 9.3.9 of the draft EIS indicates that with the implementation of the above (and additional) mitigation measures, the residual effects on the Ungulates, Furbearer, and Woodland Caribou VCs were assessed as follows:</p> <ul style="list-style-type: none"> <li>• Moose. Not significant: the residual effects of alteration and/or loss of available habitat and of change in mortality are not expected to result in a change that will alter habitat integrity to the point where it would not be able to sustain the regional ungulate populations or the integrity of the regional moose population to the point where it could not be sustained.</li> <li>• Furbearers. Not significant: the residual effects of alteration and/or loss of available habitat and of change in mortality are not expected to result in a change that will alter habitat integrity to the point where it would not be able to sustain the regional furbearer populations or the integrity of the regional furbearer populations to the point where they could not be sustained.</li> <li>• Woodland caribou. Not significant: the residual effects of alteration and/or loss of available habitat and of change in mortality are not expected to result in a change that will alter habitat integrity to the point where it would not be able to sustain the regional woodland caribou population or the integrity of the regional woodland caribou population to the point where they could not be sustained.</li> </ul> <p>YNLR believes this summary to be overly optimistic and somewhat inaccurate for the following reasons:</p>	Denison notes that there are a number of review comments that have a similar theme. Rather than repeating the same narrative in this table Denison has developed an inclusive technical memo to provide a more coherent and complete response. Accordingly, please refer to the attached memo RE: Wheeler River Project Environmental Impact Statement - Denison's Response to Woodland Caribou Habitat Comments.

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			<ul style="list-style-type: none"> <li>The RSA and LSA are too small relative to the home range of woodland caribou to serve as a basis for assessing residual and cumulative effects on the species.</li> <li>Large portions of the RSA and LSA have been badly degraded by mineral exploration activities (particularly by line-cutting for seismic surveys; Appendix 9B), yet their direct and indirect (edge) impacts seem not to have been considered in the effects assessments. This is puzzling given the known impact that these features have on wildlife, especially caribou, wolverine, other predators, and many avian species. The EIS maps themselves clearly show an avoidance of these seismically-disturbed areas by woodland caribou.</li> </ul> <p>YNLR strongly believes that, at a minimum, an aggressive Caribou Habitat Offset Plan should be co-developed before Project work begins, and regular monitoring of the caribou population be conducted throughout the life of the Project.</p>	
412	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment, p. 9-320, 9-384, 9-389, 9-408, 9-413, 9-414, 9-454, 9-457, 9-460, 9-465, 9-469 Section 11.0 Land and Resource Use	<p>Comment #69, Appendix A: in Section 9.4 of the EIS lists Raptors, Migratory Breeding Birds and Bird Species at Risk together (p. 9-320).</p> <p>YNLR questions how and why these three avian VCs were selected and grouped.</p> <p>The three VCs include dozens of breeding bird species with hugely varying habitat requirements, so it is difficult to see how it is possible to accurately predict Project effects for many of these species, especially when so many are lumped together in only one Migratory Breeding Birds VC. In addition, the scarcity of raptors and avian species at risk makes them poor candidates for effects assessments because of low sample sizes.</p> <p>Comment #72 and 73, Appendix A: With only two water-based species selected to represent all forest raptors in the Project area, the results and conclusions of this assessment are extremely limited. For the forest birds in particular, this is compounded by the non-inclusion of the historic network of</p>	An EIS requires scoping in order to determine the appropriate content for the assessment and focus the EIS on key areas of concern and relevance. As per standard, accepted EA practice, the EA was organized by and focused on VCs. The VCs are aspects of the biophysical and human environments that will likely be affected (adversely or positively) by the Project. The VCs reflect identified scientific, local knowledge and Indigenous knowledge, and community interests regarding the Project and its potential effects and are typically identified early in the EA process as a result of questions and concerns raised through engagement with government departments and agencies, Indigenous and community groups, and the general public. Key Indicators are an important component or aspect of the VC that is expected to be affected (changed) as a result of the Project. The KIs may comprise subsets or a guild of the VC, certain aspects of the VC that may be affected by the Project and/or which have a particular importance. The three avian VCs (with Key Indicators in brackets) were: Raptors (bald eagle and osprey), Migratory Breeding Birds (waterbirds and waterfowl, upland game birds, and migratory songbirds), and Bird Species at Risk (common nighthawk, short-eared owl, yellow rail, rusty blackbird, and olive-sided flycatcher). The residual effects evaluation was completed on the Key Indicator species. The

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			<p>seismic cut lines across the landscape (Appendix 9B), and the resulting underestimation of direct and edge effects.</p> <p>Comment #74, Appendix A: Species at risk generally make very poor indicators of ecological integrity/biodiversity because of their relative scarcity. In fact, three of the VC bird species at risk selected were not even detected during the Project surveys. This very low quantity and data quality greatly weakens any conclusions regarding the Project residual effects.</p> <p>Comment # 75, Appendix A: YNLR cannot find any mention of the extensive seismic line network impacts (Appendix 9B) included in the effects assessment for birds. This was also the case for the caribou and wildlife assessments.</p> <p>Comment #76 and 77: Appendix A: The selection of weak indicators and the ad hoc grouping of dissimilar species make these predictions quite unreliable. This potential error is likely compounded by the apparent exclusion of the direct and indirect effects of the existing seismic cutline network (Appendix 9B). Concern about these extensive network of seismic cut lines were also raised by Indigenous People at several places in the EIS.</p>	<p>rationale for selecting these avian Key Indicators is available in Section 9.4.1.2. For instance, the inclusion of Species At Risk birds is a requirement of the Species at Risk Act and the CNSC's REGDOC 2.9.1 also notes that applicants should identify all biological species at risk in the area; the avian Species at Risk were not included in the EIS to be indicators of ecological integrity/biodiversity.</p> <p>The avian effects assessment was habitat based. The assessment methods used a conservative approach with the assumption that, following the implementation of site-specific mitigation measures, the proposed Project activities would have a residual effect on these species' guilds regardless of species presence on site. As described in the EIS, pre-construction surveys will be conducted prior to the commencement of any vegetation clearing or soil disturbance. Avian species will also be routinely monitored throughout the life of the Project. Results from the surveys and monitoring activities are expected to inform the adaptive management process to update Project design and identify the need for additional mitigation measures, if required. Denison is of the professional opinion that the data presented, and analysis provided in the avian assessment of the draft EIS is sufficient given 1) the local / regional environment, 2) the level of interaction of the Project with birds that is expected, and 3) because bird densities are not expected to be limited by habitat regionally.</p> <p>Please also refer to the attached memo RE: Wheeler River Project Environmental Impact Statement - Denison's Response to Woodland Caribou Habitat Comments for a discussion of how existing cutlines were considered in avian assessments. All past anthropogenic disturbances (which includes cutlines to support mineral exploration) were considered in the terrestrial environment assessments. These human disturbances were mapped and considered/addressed appropriately in Section 9 including the Existing Environment, Residual Effects Characterization, and Cumulative Effects Assessment sections, as they relate to Terrain, Soil and Organic Matter/Peat (Section 9.1); Vegetation and Ecosystems, Listed Plant Species and Wetlands (Section 9.2); Ungulates, Furbearers and Woodland Caribou (Section 9.3); Raptors, Migratory Breeding Birds, and Bird Species at Risk (Section 9.4). The cutlines were classified as previously disturbed and considered as low-quality habitat or no habitat, depending on the species being assessed and their habitat requirements. An anthropogenic layer is included on draft EIS, Figure</p>

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				9.2-6, which includes geophysical cutlines. Please note that anthropogenic features were mapped at IKONOS 1:5,000. This anthropogenic layer is not listed under available habitat types for any of the wildlife or avian VCs in subsequent assessments (e.g., Figures 9.3-9 to 9.3-14, Figures 9.4-8 to 9.4-11, Figures 9.4-13 to 9.4-15) except for Common Nighthawk (Figure 9.4-12), which is a species that is known to use anthropogenic features.
413	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment, p. 9- 356 and 9-357	<p>Comment #71, Appendix A: The EIS states: "In this assessment, alteration of habitat is defined as indirect habitat alteration where suitable habitat for the Raptors, Migratory Breeding Birds, and Bird Species at Risk VCs and their associated KIs remains physically intact but is rendered less suitable or unsuitable for their use. Sources of habitat alteration include Project-related habitat fragmentation (i.e., the breaking apart of continuous habitat into smaller, spatially distinct patches), edge effects (i.e., the influence of recently cleared areas on adjacent habitats), and sensory disturbance." (Page 9-356, EIS)</p> <p>"A minimum patch size is often required to fulfill all required life requisites (Robbins et al. 1989, Askins 1994, Vance et al. 2003, Butcher et al. 2010). When available suitable habitat is below a minimum patch size threshold, individual birds may get displaced despite the continued presence of suitable habitat. As a result, patch size at the individual and population level may have a species-specific effect on habitat use and could affect reproductive success, health, and survival (Askins 1994, Villard et al. 1999, Vance et al. 2003, Suorsa et al. 2004, Butcher et al. 2010)." (Page 9-357, EIS)</p> <p>"Edge effects include the influence of recently cleared areas on adjacent intact habitats. Gradients of light intensity, temperature, wind, relative humidity, as well as snow accumulation and melt may occur along the border between cleared areas and intact habitats (Bannerman 1998, Kremsater and Bunnell 1999), which could alter habitat suitability for avian use. Bannerman (1998) suggested that the richness and density of generalist bird species may increase along forest edges based on the variety of vegetation and abundance of food (e.g., American Crow and Blue Jay. However, numbers of habitat</p>	<p>Please refer to the attached memo RE: Wheeler River Project Environmental Impact Statement - Denison's Response to Woodland Caribou Habitat Comments for a discussion of how existing cutlines were considered in avian assessments. All past anthropogenic disturbances (which includes cutlines to support mineral exploration) were considered in the terrestrial environment assessments. These human disturbances were mapped and considered/addressed appropriately in Section 9 including the Existing Environment, Residual Effects Characterization, and Cumulative Effects Assessment sections, as they relate to Terrain, Soil and Organic Matter/Peat (Section 9.1); Vegetation and Ecosystems, Listed Plant Species and Wetlands (Section 9.2); Ungulates, Furbearers and Woodland Caribou (Section 9.3); Raptors, Migratory Breeding Birds, and Bird Species at Risk (Section 9.4). The cutlines were classified as previously disturbed and considered as low-quality habitat or no habitat, depending on the species being assessed and their habitat requirements. An anthropogenic layer is included on draft EIS, Figure 9.2-6, which includes geophysical cutlines. Please note that anthropogenic features were mapped at IKONOS 1:5,000. This anthropogenic layer is not listed under available habitat types for any of the wildlife or avian VCs in subsequent assessments (e.g., Figures 9.3-9 to 9.3-14, Figures 9.4-8 to 9.4-11, Figures 9.4-13 to 9.4-15) except for Common Nighthawk (Figure 9.4-12), which is a species that is known to use anthropogenic features.</p>



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			<p>specialist species (e.g., Red-breasted Nuthatch and Pileated Woodpecker may decrease near edges because they use edge habitats less frequently or avoid them (George and Dobkin 2002). The potential influx of individuals into edge habitats, or the potential displacement of individuals into other areas, may increase crowding and subsequent inter-and intra-specific competition for breeding habitat, food, and other resources (Hagan et al. 1996, Schmiegelow et al. 1997, Bannerman 1998, George and Dobkin 2002, Calizza et al. 2017).” (Page 9-357, EIS)</p> <p>The above descriptions summarize the potential effects of the Project on breeding bird habitats. When wooded landscapes are subjected to widespread seismic activity, the same effects occur: continuous parcels of forest are divided by miles of cut lines, resulting in smaller habitat patches and greater habitat edge. As a result, bird species that prefer contiguous habitats are declining, while birds that prefer habitat edges are increasing.</p> <p>How will the EIS address already existing direct and indirect impacts of these historic seismic linear disturbances across the LSA and RSA (Appendix 9B) that were ignored.</p>	
414	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment	Comment #78, Appendix A: Why were amphibians excluded as a VC/KI? Bats? Both were surveyed (Appendix 9B).	Subsequent to filing the draft EIS, Denison has developed a new Species at Risk appendix to Section 9 which will be included in the final EIS and has been included in the response to YNLR (a new SAR appendix (new Appendix 9-D) will be added to Section 9 of the final EIS. It has been included here as Attachment IR-131). This new EIS appendix lists all SAR species potentially occurring in the Project study areas, with links to applicable and appropriate mitigation measures described in the draft EIS. The new appendix also includes a summary of the life history requirements, the expected Project effects, proposed mitigation measures, and anticipated residual effects on bats and amphibians.
415	YNLR (March 4, 2023)	Section 9.0 Terrestrial Environment, p. 9-474	Comment #79, Appendix A: Project monitoring programs specific to Raptors, Migratory Breeding Bird, and Bird Species at Risk VCs are critical, particularly the ongoing repeated surveys throughout the life of the Project, especially given the weak	The framework for avian-related monitoring programs are available in Section 9.4.8 of the draft EIS. This includes a discussion of the anticipated adaptive management process. As described in the draft EIS, a wildlife monitoring plan will be developed to support permitting and licensing and implemented as

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			predictive basis for the effects assessments of the Project on breeding bird species.	the Project proceeds. The wildlife monitoring plan will provide details on the monitoring and follow-up programs outlined in Section 9.4.8 of the draft EIS.
416	YNLR (March 4, 2023)	Section 11.0 Land and Resource Use	Comment #80, Appendix A: YNLR would like to emphasize that natural resource use by Indigenous Peoples of northern Saskatchewan is of incalculable value, and the Project must not infringe upon the ability of Indigenous Peoples to exercise those constitutionally protected rights.	Denison acknowledges the comment. We believe that the work we have done to date with the YNLR, such as entering into an Exploration Agreement in respect of Denison's exploration activities, demonstrates our strong understanding of this YNLR emphasis.
417	YNLR (March 4, 2023)	Section 11.0 Land and Resource Use, p. 11- 50, 11- 57, 11-58, 11- 79, 11-138 and 11-139	<p>Comment #84, 87, 88 and 89, Appendix A: The EIS notes that "The presence of the Project workforce will increase the numbers of people in the ILRU LSA by an estimated 300 during Construction and 180 during Operation and Decommissioning." (p. 11-57)</p> <p>YNLR notes that:</p> <ul style="list-style-type: none"> <li>This is a significant increase in the number and persistence of humans in the area, and despite these vague reassurances, YNLR believes that this increase will affect the ability of Indigenous Peoples to exercise their Aboriginal and Treaty rights and increase the pressures on the natural resources of the area.</li> <li>YNLR believes that Denison provides an overly optimistic conclusion regarding the impacts of the Project on traditional resource use by Indigenous peoples.</li> <li>One indicator of increased human activity is truck traffic. However, these numbers do not include non-truck traffic. How will Denison address this?</li> </ul> <p>As with the impacts on the traditional use of land and natural resources by Aboriginal and Treaty rights holders, the human presence in the region is going to increase, which in turn will put additional pressures on fish and wildlife resources.</p>	<p>Section 12.3.3.2.1 of the EIS describes how access north of the Key Lake gatehouse for employees of northern mines, Indigenous resource harvesters from select communities, cabin owners, and lease owners provides for controlled access to users. Further, Denison staff will not be allowed to hunt or fish. Denison expects to continue to work with Indigenous COI to share information about the proposed impacts of the Project in relation to the potential to adversely impact the exercise of hunting, fishing, trapping and the carrying out of traditional uses as a result of the Project. Information in this respect will be provided as an update to the EIS. Further mitigations identified in Section 12 include:</p> <ul style="list-style-type: none"> <li>Air transportation will be used to transport most workers between the Project site and designated pick-up and drop-off points in communities. Pick-up points will be located at two locally central points in communities within the LSA, one additional site in northern Saskatchewan, and potentially other locations to minimize time spent away from families.</li> <li>Denison's Environment, Health, Safety, and Sustainability Policy will be enforced.</li> <li>Liaison with LSA communities and relevant authorities (e.g., RCMP, health and service providers) will continue.</li> <li>Culturally sensitive employment policies that support the Indigenous workforce will be implemented (e.g., having an Elder representative at the Project site to provide cultural programming)</li> </ul>
418	YNLR (March 4, 2023)	Appendix 16-A Summary of Residual Effects, p. 1	Comment #90, Appendix A: There are about three dozen Valued Component/Key Indicators that are assessed for the significance of residual effects (effects that remain after mitigation) from the Project. They include sediment quality, benthic invertebrates, fish and fish habitat, fish health, terrain, soil, organic matter, vegetation abundance, listed plant species, wetlands, ungulates	The draft EIS carefully evaluated the residual adverse effects remaining on VCs and KIs following implementation of mitigation measures. The EIS conservatively identifies where change from existing conditions are expected for each VC or KI, and assesses this change (i.e., the residual effect) for significance. For instance, the wildlife and avian assessments concluded that the residual effects of the Project are not expected to result in a change to

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			<p>(moose), furbearers (wolverine, pine marten, mink, muskrat), woodland caribou, raptors (bald eagle, osprey), migratory breeding birds (water birds and waterfowl, upland game birds, migratory songbirds), avian species at risk (5), human health and safety, Indigenous land and resource use, other land and resource use, heritage resources, traditional diet, community well-being (income and cohesion), traffic, infrastructure &amp; services, and economics.</p> <p><u>The residual effects of the Project on all of these VCs/Kis are concluded to be non-significant in the EIS.</u></p> <p>YNLR questions this overly optimistic and statistically unlikely prediction. For example, the sheer number of fish and wildlife species that the few selected VC/Kis represent would suggest that some will be adversely affected, even if by chance alone. The assessment effectively states that the Project is advantageous and/or neutral to all biophysical and human values, which YNLR rejects. If the Project proceeds, YNLR will want to be closely associated with all project monitoring programs.</p>	<p>the viability and persistence of the VCs and associated KIs and were, therefore, predicted to be not significant. As the review comment correctly notes residual effects identified in the EIS were deemed to be not significant - that is, the level of effect (change) did not meet the threshold of significance as defined for the VC. The EIS also discusses the certainty (and uncertainty) of the conclusions drawn by the assessment. Each VC or KI is evaluated independently and based on specific Project-environment interactions and VC-specific mitigations. Denison is confident that the conclusions drawn in the EIS with respect to potential effects and their significance are supported by the analysis presented.</p> <p>Details of follow-up and monitoring plans will be prepared in consultation with Indigenous groups, other interested parties, and relevant federal and provincial agencies. YNLR will be informed throughout the monitoring program design and implementation process. Monitoring program design and implementation will be guided by the following principles: programs will meet regulatory requirements, programs will confirm the effectiveness of mitigation measures and predictions made in the assessment, programs will be implemented in an adaptive management framework (if/where applicable) to reduce effects during the lifetime of the Project, and programs will have spatial boundaries that are sufficiently extensive to measure EIS predictions.</p>
419	YNLR (March 4, 2023)	Appendix 16-A Summary of Cumulative Effects	<p>Comment #91, Appendix A: There are about three dozen Valued Component/Key Indicators that are assessed for the significance of cumulative effects (effects that remain after mitigation) from the Project. These include air quality, noise, terrain morphology and stability, groundwater quantity and quality, surface water quality and quantity, soil quantity and quality, organic matter, sediment quality, benthic invertebrates, fish and fish habitat, fish health, vegetation abundance, listed plant species, wetlands, moose, furbearers, woodland caribou, raptors, migratory breeding birds, avian species at risk, human health, Indigenous land and resource use, other land and resource use, heritage resources, traditional diet, income of workers, community cohesion, traffic, community infrastructure and services, and economics.</p>	<p>Please refer to the response to YNLR comments #90.</p> <p>Additionally, Denison notes that there are a number of review comments that have a similar theme. Rather than repeating the same narrative in this table Denison has developed an inclusive technical memo to provide a more coherent and complete response. Accordingly, please refer to the attached memo RE: Wheeler River Project Environmental Impact Statement - Denison's Response to Woodland Caribou Habitat Comments.</p>

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			As with the summary of the residual effects, <u>the cumulative effects of the Project on all of these VCs/Kis are concluded to be non-significant in the EIS.</u> Again, YNLR believes this to be an overly optimistic and statistically unlikely prediction for the same reasons as given above, for example, inadequate spatial boundaries, poorly chosen and grouped VCs and Kis, the apparent omission of the existing linear disturbance network in the effects assessments, and the largely qualitative nature of the assessments and their resultant 'significance.'	
420	YNLR (March 4, 2023)	Executive Summary Monitoring and Follow-Up Programs	<p>Comment #92, Appendix A: YNLR believes there is a lot of uncertainty remaining from this EIS. This stems from several items, including the relatively novel nature of the ISR methodology with its potential effects on water quality and fish health, to the questionable conclusion that the mine will be neutral with respect to the persistence of woodland caribou in the region.</p> <p>If the mine is to be approved, YNLR wants a transparent, independent, statistically robust monitoring program implemented for the life of the Project and beyond. YNLR expects northern Indigenous Peoples to be involved in the design and implementation of such a program.</p>	<p>Details of follow-up and monitoring plans will be prepared in consultation with Indigenous groups, other interested parties, and relevant federal and provincial agencies. YNLR will be informed throughout the monitoring program design and implementation process. Monitoring program design and implementation will be guided by the following principles: programs will meet regulatory requirements, programs will confirm the effectiveness of mitigation measures and predictions made in the assessment, programs will be implemented in an adaptive management framework (if/where applicable) to reduce effects during the lifetime of the Project, and programs will have spatial boundaries are sufficiently extensive to measure EIS predictions. Additionally, Denison has identified key objectives respecting Indigenous engagement associated with the Project:</p> <ul style="list-style-type: none"> <li>• Build and maintain authentic relationships based on a foundation of trust, good faith, and transparency.</li> <li>• Create a respectful dialogue process that promotes communication and collaboration among Denison and Indigenous communities, in a timely and accurate fashion.</li> <li>• Understand how the proposed development of the Project may affect the interests of Indigenous peoples (including Indigenous and/or Treaty Rights), and work with Indigenous peoples to avoid, mitigate, or otherwise address effects, while also collaborating to maximize potential positive effects.</li> </ul>
421	YNLR (March 4, 2023)	General	Comment #1, Appendix B: There is inconsistent use of YNLRO and YNLR throughout several sections of the EIS. Specifically,	Editorial issue with inconsistent abbreviations for Ya'thi Néné Land and Resource Office will be corrected in the final EIS and 'YNLR' will be used.

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			YNLRO in section 3, YNLR in sections 4 and 11. As they are used to represent the same thing, only one format should be used.	
422	YNLR (March 4, 2023)	Section 1.0 Project Introduction and Overview, p. 1-5 Section 3.0 Value of IK in EA Practice, p. 3-1 and 3-2	<p>Comment # 2 and 6, Appendix B: EIS Page 1-1, second paragraph, first sentence states: "The Project falls within the boundaries of Treaty 10, the Nuhtsiye-kwi Benéne (Ancestral Lands) of English River First Nation, the traditional territory of the Kineepik Métis Local #9, the homeland of the Métis, and the Nuhenéné."</p> <p>YNLR notes that this is a misuse of Nuhenéné as the name of the people. This should be "Nuhenéné, the traditional territory of the Athabasca Denesųliné".</p> <p>In reference to section 3.1 of the EIS (p. 3-1 to 3-2), YNLR also notes that the Wheeler River Project falls within Nuhenéné and Athabasca Denesųliné perspectives and knowledge should have been sought throughout all stages of the Environmental Assessment (EA). Early inclusion in this project would have been beneficial to both the Athabasca Denesųline communities and to Denison through increased sharing of knowledge.</p>	At first instance of 'Nuhenéné' Denison will recognize: 'Nuhenéné, the traditional territory of the Athabasca Denesųliné.'
423	YNLR (March 4, 2023)	Section 1.0 Project Introduction and Overview, p. 1-5 and 4-12	<p>Comment #3, Appendix B: There YNLR notes that the Hatchet Lake Denesųliné First Nation, an Athabasca Denesųliné community, is the closest to the Project. The Wheeler River EIS seems to rely on road distance rather than physical proximity.</p> <p>Road distance should not be utilized to determine community importance or impacts since not all travel methods require continuous roads. Travel to this part of our traditional territory is typically achieved cross country rather than by road.</p> <p>Comment #13, Appendix B: YNLR notes that Hatchet Lake First Nation is located 150 km...Black Lake First Nation is located 180 km...and Fond du Lac First Nation is located 230 km away from the Project as recognised on page 4-47 of the draft EIS. Our community members generally access the Project area via overland routes rather than the established Provincial Road network.</p>	Thank you for the information.



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424	YNLR (March 4, 2023)	Section 1.0 Project Introduction and Overview, p. 1-4 and 1-7	<p>Comment #4 and 5, Appendix B: Athabasca Denesųliné land uses include, but are not limited to, large and small game harvesting, gathering activities, and fishing, all of which are of key cultural importance.</p> <p>It is important to note that the Hatchet Lake Denesųliné First Nation and the community of Wollaston Post are situated at Wollaston Lake and given their downstream location there is potential for negative impacts.</p>	<p>Potential effects from the Project on surface water quality were comprehensively assessed in Section 8.2 of the draft EIS. The assessment evaluated discharge of treated effluent from the site using predictive modeling. Water treatment will be conducted in the onsite Industrial WasteWater Treatment Plant (IWWTP) and treated effluent will be tested prior to release to Whitefish Lake. Treated effluent that does not meet the effluent discharge criteria in the provincial approval to operate or effluent criteria defined in the Metal and Diamond Mining Effluent Regulations will not be released to Whitefish Lake and will be recirculated to the process water pond for eventual re-treatment in the IWWTP. In the draft EIS, Section 8.2 the predictive modeling showed that constituent concentrations including radionuclides would be below water quality objectives for the protection of aquatic life (i.e., no effects would be expected) at the outlet of Whitefish Lake. The outlet of Whitefish Lake is well upstream of the inflow of Icelfander River to Russell Lake. Since no effects on surface water quality are expected to occur in the lake closest to the Project, no effects would accrue in areas further downstream in the watershed, where contributing sub watersheds are many, many-times the size of the sub watersheds near the Project site. As such, there will be no effects on surface water quality in Wollaston Lake from the Project activities.</p>
425	YNLR (March 4, 2023)	Section 3.0 Value of IK in EA Practice, p. 3-5	<p>Comment #7, Appendix B: YNLR notes that while the wording for EIS Page 3-5, first paragraph, is an improvement from the May 2021 draft, it does not make clear that no Wheeler River site specific Athabasca Denesųliné knowledge or land use studies were undertaken and that the information presented is from a variety of other projects with differing objectives and study areas.</p> <p>The issue is better captured/described in the EIS on page 11-39.</p>	Acknowledged, updated language will be included in the EIS.
426	YNLR (March 4, 2023)	Section 3.0 Value of IK in EA Practice, p. 3-10	<p>Comment #8. Appendix B: YNLR notes that there appears to be grammatical errors for page 3-10, last paragraph of the EIS.</p> <p>YNLR requests edits to: "Ya'thi Néné Lands and Resources, the point of contact for and representative of the Athabasca Denesųliné communities of Black Lake, Fond du Lac, and Hatchet Lake Denesųliné First Nations, as well as the northern hamlets/settlements of Stony Rapids, Wollaston Lake, Uranium City, and <u>Camsell Portage, provided their report; An Exploration</u></p>	Acknowledged, edit will be made to the EIS.

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			<u>of Recorded Athabasca Denesųliné Traditional Knowledge, Land Use and Occupancy Information in the Vicinity of Denison Mines Wheeler River Project</u> , that summarized traditional knowledge and land use and occupancy information collected for various other projects and initiatives and partially documented Athabasca Denesųliné use in the Project area, although it is not considered as a site-specific study."	
427	YNLR (March 4, 2023)	Section 3.0 Value of IK in EA Practice, various pages	<p>Comment #9, 10, 12, 15, 16, 17, 19 and 35, Appendix B: YNLR notes that as the Athabasca Denesųliné were not considered to be an Indigenous COI, the opportunities to contribute to our knowledge to this discussion were diminished or lost.</p> <p>Comment #19, Appendix B: The mis-categorization as the Athabasca Denesųline am Indigenous Community rather than as an Indigenous COI is a step backwards rather than forwards with regards to reconciliation. A letter to Denison dated July 29, 2022, YNLR critiqued the designations of COI and IC as being artificial and marginalizing. Denison responded October 28, 2022, after the submission of Wheeler River EIS with an alternative view.</p> <p>Other related comments include:</p> <ul style="list-style-type: none"> <li>• Comment #9, Appendix B: Only 4 of 31 aspects influenced (from EIS Table 3.5-1) for Indigenous knowledge and 3 of 37 aspects influenced (from EIS Table 3.5-2) for local knowledge were taken from Athabasca Denesųline knowledge sources. How will Denison address this?</li> <li>• Comment #10, Appendix B: YNLR notes that the Athabasca Denesųliné communities should be considered an Indigenous COI per Denison's definition (EIS page 4-vii) as they are/have: <ul style="list-style-type: none"> <li>○ signatories of Treaty 10 and Athabasca Denesųline traditional territory is within the Project area (Hatchet Lake First Nation is a signatory to Treaty 10 as recognised on page 4-47 of the draft EIS)</li> </ul> </li> </ul>	<p>Denison's approach to identifying Indigenous COIs considered several factors as identified in Section 4.3.1 of the EIS. Being signatories of Treaty 10 was among, but not the sole applicable criteria, and not all Treaty 10 communities are considered as Indigenous COIs for the Project. Through continued and focussed engagement with the YNLR since the YNLR identified its interest in the Project in 2019, Denison has come to better understand the Athabasca Denesųliné communities' relationship to the Project site and current use of the areas for traditional purposes. Denison acknowledges that the Hatchet Lake Denesųliné First Nation has the potential for established Indigenous and Treaty Rights proximal to the Project. The Hatchet Lake Denesųliné First Nation, as represented by the YNLR will be identified as an Indigenous COI in the updated EIS.</p> <p>With respect to Denison's consideration of Indigenous Knowledge shared by the Athabasca Denesųliné knowledge sources, Denison notes that Tables 3.5-1 will be updated to better reflect where the YNLR's An Exploration of Recorded Athabasca Denesųliné Traditional Knowledge, Land Use and Occupancy Information in the Vicinity of the Denison Mines Wheeler River Project, which was included as an Appendix to the EIS, was considered and included as Table 3.5-1 does not reflect all instances the report was utilized. With respect to Table 3.5-2, only a limited number of data sources were considered and labelled as Local Knowledge - which is representative of information collected outside of a community-led IK process, key person interviews, or engagement events. As such, there may be limited examples in which knowledge shared constituted local knowledge, and may have been considered as either IK or engagement outcomes.</p>

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			<ul style="list-style-type: none"> <li>○ established Treaty rights in proximity to the Project</li> <li>○ more likely to experience impacts, for example, water drainage as indicated on page 1-7 of the EIS ultimately flows into Wollaston Lake where the Athabasca Denesųline community of Hatchet Lake is located</li> <li>• Comment #12 and 16, Appendix B: YNLR notes that the Project is located within Nuhenéné (the Athabasca Denesųliné traditional territory) as recognised on page 4-61 of the draft EIS. Further, Hatchet Lake First Nation is a signatory to Treaty 10, while Black Lake First Nation and Fond du Lac First Nation are signatories to Treaty 8, and as such all have Treaty Rights within the Project area and that ; that our communities are in proximity to the Project and have demonstrated traditional activity;</li> <li>• Comment #15, Appendix B: YNLR notes that the Athabasca Denesųline has relationships with other projects such as McArthur River and Key Lake as indicated in ROC-78, page 504, Combined Appendices for the Wheeler River Project Draft EIS.</li> <li>• Comment #17, Appendix B: Given these EIS defined criteria, YNLR has difficulty understanding why the Athabasca Denesųliné have been excluded from Indigenous COI status for this project. Exclusion of COI status means loss of opportunity for the communities to be part of greater engagement throughout all stages of the Project. Lost opportunities are considerable and include loss of participation at all phases of the Project and include influence regarding the boundaries of the study areas, possibilities for increased discussions regarding environmental and health concerns, mitigation procedures, and planned remediation, potential to participate in monitoring and research projects and future opportunities such as employment.</li> <li>• Comment # 35, Appendix B: YNLR notes that the engagement database demonstrates that their opportunities to contribute were limited. For example, of the approximately 101 pages of Engagement Database</li> </ul>	

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			<p>tables that are dispersed through several sections of the appendices for the EIS (2022), there are 6 entries credited to the Athabasca Denesųliné. Given an average of 3 to 5 entries per page in the tables, this means that only 1-2% of the contributions were made by the Athabasca Denesųliné. These limited opportunities may well be the result of the exclusion of Athabasca Denesųline from the COI category.</p> <p>[Additional questions on this topic directed to regulators or government entities are included in the CNSC table]</p>	
428	YNLR (March 4, 2023)	Section 4.0 Engagement, p. 4-14, 4-61	Comment #20 and 22, Appendix B: YNLR note that project is within Nuhenéné. There is no need to state the southern edge. It could be argued that the Project is on the northern edge of other Indigenous groups areas. Such descriptions have been applied inconsistently to the groups. Territories should be described in an unbiased manner.	Noted, EIS will be updated accordingly.
429	YNLR (March 4, 2023)	Section 4.0 Engagement, p. 4-61	Comment #23, Appendix B: YNLR notes that the EIS text on page 4-61 should recognise that this report was a compilation of existing YNLR data from a variety of projects with differing objectives and study areas, and that no research was commissioned.	Noted, EIS will be updated accordingly.
430	YNLR (March 4, 2023)	Section 4.0 Engagement, p. 4-65	<p>Comment #24, Appendix B: YNLR believes that the EIS section on page 4-65 referring to the letter sent by Denison dated October 28, 2022 rather than in early October as stated in the draft EIS. Given the draft EIS was submitted to the CNSC on October 24, 2022, four days before Denison responded to YNLR concerns, further opportunity to provide clarifications or specific details for inclusion in the EIS were lost.</p> <p>YNLR does not agree that all our concerns have been addressed in the EIS.</p>	Denison understands the EIS involves an iterative process and Denison will continue to engage with YNLR at their direction.
431	YNLR (March 4, 2023)	Section 11.0 Land and Resource Use, p. 11-8	Comment #26, Appendix B: YNLR notes that the Athabasca Denesųliné had limited opportunity to contribute to VCs. One community virtual meeting was presented to the Athabasca Denesųline, while there appears to have been approximately 12 events for other First Nation communities (combined) including	In March 2019, Denison was notified by the YNLR that the Indigenous communities within the local Athabasca communities identified were interested in the Project and that YNLR held the Duty to Consult from these communities. Since receiving correspondence from the YNLR office in 2019 Denison has been collaboratively working with the YNLR office in a mutually

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			workshops, school presentations, meetings (in person and virtual) and open houses (draft EIS pp 4-16 to 4-86). While YNLR appreciate the opportunity to participate and recognize the impacts of Covid-19, the difference between Athabasca Denesųline participation and other groups is stark.	agreed upon manner and will continue to do so. Denison understands the EIS involves an iterative process and Denison will continue to engage with YNLR at their direction.
432	YNLR (March 4, 2023)	Section 11.0 Land and Resource Use, p. 11-14	Comment #27, Appendix B: YNLR notes that the Athabasca Denesųline have demonstrated land use in both the local and regional land use as per our report (YNLR 2022). YNLR has reported 371 Athabasca Denesųline Traditional Land Use and Occupancy data entries within the Denison regional study area. These include 18 points for harvesting of big game, such as barrenground caribou, moose, and woodland caribou, 29 overnight sites, 21 points where birds or eggs such as duck and spruce grouse were harvested. Other activities include furbearer harvesting, fishing, including commercial and tourism related activities such as guiding. A map of these activities is reiterated here.	Thank you, noted.
433	YNLR (March 4, 2023)	Section 11.0 Land and Resource Use, p. 11-18, 11-40, 11-41, 11-94 and 11-95	Comment #28, 31 and 32, and 34 Appendix B: YNLR notes that Denison's understanding of the nature of the 2022 YNLR Report is incomplete. As YNLR noted many times, this report is an amalgamation of known information contained within YNLR's database. It comes from a variety of projects each with differing objectives and geographic scope. It is not a Wheeler River-specific Athabasca Denesųline Knowledge, Land Use, and Occupancy (ADKLUO) Study. This, in our opinion, leads to misunderstandings and misrepresentations within the draft EIS. Additional clarifications are that our report is not a Wheeler River-specific TLU study, nor were any such specific works undertaken or commissioned. This is important because it sets the tone for comparisons with other Indigenous groups who have met with Denison far more frequently and conducted far more intensive and focused works. Additionally, the limited engagement with did not allow for a shared Athabasca Denesųline – Denison in- depth exploration of Athabasca Denesųline experiences.	Section 11.1.2.4 of the EIS will be updated to reflect the fact that the YNLR's report is an amalgamation of known information from YNLR's database and was not collected explicitly for the purposes of the Project, and as such, should be interpreted by the reader with caution.  Section 3.3 of the YNLR's report notes that the comments shared are not geo-located. Without having the locations disclosed, information may have been excluded from Section 11.0 as there was no way to confirm whether those activities overlapped with the spatial boundaries under consideration for potential effects to Indigenous Land and Resources Use.



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			<p>Using the YNLR Report requires an understanding that the amalgamated information comes from a variety of projects and was collected for a variety of purposes. For example, the report mentions woodland caribou values, tracks, and sightings within the EIS study area.</p> <p>This information comes from various caribou studies and our database records project.</p> <p>information. This information clearly demonstrates that Athabasca Denesųline members were in the EIS area, that harvesting or other values were not recorded is a function of the purpose of the woodland caribou study rather than an indication that Athabasca Denesųline do not utilize the area for other traditional purposes. Other such interpretations or misrepresentations exist within the report. Additional engagement with the Athabasca Denesųliné communities and YNLR could have ensured further clarification.</p> <p>Information from the 2022 YNLR Report Section 3.3 appears to have been disregarded in the draft EIS. This information includes references to activities mentioned during duty-to-consult works for other projects with the LSA. This includes hunting, fishing (including commercial) and the gathering of berries and medicines. The responses also indicate that the land is used for therapeutic purposes, youth gatherings, fish camps and general camping. Further the responses note that areas were utilized year-round for hunting, trapping, and fishing, with activities such as berry picking occurring in summer. Impact concerns raised by the interviewees in included damage to the lands and water, how wildlife will be affected, disruption to traditional activities and accessibility to the areas while projects are ongoing. Surely, this information is relevant to the Wheeler River project and should be included with the EIS?</p> <p>YNLR also indicated to Denison in July 2022 that some of the publicly available information is the draft EIS was misleading and of limited relevance to this project.</p>	

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434	YNLR (March 4, 2023)	Section 11.0 Land and Resource Use, p. 11-37	Comment #29, Appendix B: YNLR notes that the Map of BQ Caribou Range in draft EIS Section 11.1.3.3.26 is misdated, it should be BQCMB 2012. The original source map is dated 2000, but includes telemetry data from 2012 so is more appropriately dated as 2012.	Noted, the map included in Section 11.1.3.2.6 (Figure 11.1-5) will be updated to reflect the appropriate date.
435	YNLR (March 4, 2023)	Section 11.0 Land and Resource Use, p. 11-40	Comment #30, Appendix B: YNLR notes, as they did previously, that they are unclear what the relevance of including these sources is, since neither the CBEMP nor the Tazi Twé project investigated land use in the Wheeler River area. The March 2022 YNLR compilation report provides clear indications that the Athabasca Denesųline communities utilize the areas in the vicinity of the Project.	Noted, Denison provided publicly available information on the Community Based Environmental Monitoring Program and the socio-economic baseline assessment for the Tazi Twé Hydroelectric Project EIS to provide context on recorded harvests in locations close to communities and distant from the Project. Section 11.1.3 further provides context from the YNLR 2022 report and their recorded land use in the vicinity of the Project.
436	YNLR (March 4, 2023)	Section 11.0 Land and Resource Use, p. 11-40	Comment #31, Appendix B: YNLR notes that the citations on the EIS page 11-40 are listed as YNLR 2020 and should likely be 2022.	Noted, the EIS will be updated.
437	YNLR (March 4, 2023)	Section 11.0 Land and Resource Use	Comment # 33, Appendix B: Pages 11-94 and 11-95 of the EIS uses the term historic.  YNLR notes that the use of the term historic is prejudicial and incorrect. YNLR were assured by Denison that they had removed the term historic during earlier discussions.	Denison has verified that the term 'historic' is not included or referenced on pages 11-94 or 11-95 of the EIS.
438	YNLR (March 4, 2023)	Section 11.0 Land and Resource Use	Comment #36, Appendix B, EIS Page 11-100 third- and fourth-lines states "The YNLR described trapping activity by one of its Athabasca Denesųliné member at Keefe Lake to the east of the RSA but did not report any trapping in N-14 (YNLR 2022)." YNLR notes that the reference to trapping in N-14 is perplexing as the Saskatchewan Trappers Association map shows that N-14 is south of the Project area. Further there is a typo: "not" instead of "nor"	Denison will revise the EIS to correct the typo.

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**From:** [Janna Switzer](#)  
**To:** [Bruce Hanbidge](#)  
**Cc:** [Carolanne Inglis-McQuay](#); [Garrett Schmidt](#)  
**Subject:** Re: [\*\*]YNLR individual comments on Denison's responses.  
**Date:** Friday, April 5, 2024 3:55:32 PM  
**Attachments:** [image001.png](#)  
[Outlook-k54cnjwf](#)

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Good afternoon Bruce:

On February 2, 2024 YNLR provided Denison with a comment letter on *Denison's Response to YNLR's Comments on the draft EIS* (November 23, 2023). A meeting was held on February 22, 2024 to discuss the outstanding concerns from YNLR. Following this meeting, on March 13, 2024, YNLR provided Denison with the below email and attached additional comments. Below is a response to the March 13, 2024 email and attached document. Comments from YNLR have been compiled into common themes for ease of response.

- 1) No further comment from YNLR – we note that Ref. #'s 375 to 378, 382, 385, 392, 395, and 398 to 438) have no further comment from YNLR related to these. We assume that our responses to these comments are deemed complete by YNLR and will proceed on that basis unless otherwise advised.
- 2) Collaboration on Monitoring Plans and Programs (Ref. #'s 379, 380, 381, 383, 384, 386, 387, 388, 389, 390, 393, 394, 396, 397): As an outcome of our meeting on February 22, 2024, where Denison and YNLR discussed YNLR's desire to be involved in monitoring plan development, Denison provided a follow up email and document from the draft Wheeler River Environmental Impact Statement(EIS) called Summary of Monitoring. The document outlines the conceptual monitoring program for all and stages of the project and how they tie to each Valued Component assessed in the EIS. Denison further committed, in that email, to work with the YNLR in a manner that has been requested of us, which includes sharing further information about monitoring plans as they are developed through the permitting and licencing process. Also in the February 22 meeting, it was noted by YNLR's consultants that the areas of immediate interest were surface and groundwater, aquatics, wildlife and Woodland Caribou monitoring. Denison acknowledged the request made in the meeting and further acknowledges the request in the March 13<sup>th</sup> email, where all monitoring plans have been requested by YNLR. As noted in the meeting, the detailed monitoring plans are not yet developed given the stage of the Project in the regulatory process. Given the number of plans, procedures and work instructions that will be developed, it would be helpful for YNLR to identify which areas monitoring are of interest from which we can then together establish a process and discuss further details about next steps.
- 3) Confidence in the freeze-wall technology (Ref. # 381): This comment received from YNLR

on March 13, 2024, highlight YNLR's perspective on groundwater monitoring requirements in association with the freeze wall. This is accompanied by doubts of freeze wall efficacy and the manner in which this was analyzed, in which YNLR has stated, "independent assessments are required." To this end, Denison would be pleased to coordinate a meeting between YNLR and the technical expert Denison utilized to design the freeze wall and confirm its effectiveness for the geological and hydrogeological conditions for an ISR mine at Wheeler River. Greg Newman from Newman's Geotechnique is a leading expert on the currently deployed freeze wall technology used at Cigar Lake and McArthur River. Mr. Newman would be able to respond to technical questions posed by YNLR about the freeze-wall technology, which could be the most effective means for YNLR to seek information about the areas of concern with respect to the freezing technology.

- 4) Caribou Offsets, Preliminary Decommissioning Plan (Ref. # 380, 387, 388, 389): YNLR has shared comments with respect to Woodland Caribou offsets, including those related to the definition of offsets, timing, and mitigation measures as part of present-day mitigation measures for the Project, and should be applied in advance of decommissioning. YNLR has also requested to see the pre-decommissioning monitoring plan for containment releases. As an outcome of our meeting on February 22, 2024, Denison provided a follow up a document called Summary of Monitoring which outlines the Project's commitments for monitoring programs for all phases of the project from pre-construction to post decommissioning. Details of monitoring will be developed prior to, and applicable for each phase of the Project, including decommissioning. Denison has also provided YNLR with the Preliminary Decommissioning Plan, of which Denison offers to include YNLR in discussions in as more details are developed for that plan. Further, as part of the February 22, 2024 email from Denison to YNLR, Denison included the Draft Caribou Management Framework, which outlines mitigation and restorative measures within the Provincial government framework. We welcomed feedback on the Draft Caribou Management Framework and remain open and willing to receive feedback on this plan.
- 5) Traditional Knowledge and Groundwater Monitoring (Ref. # 381): With respect to Denison's use of such a statement in relation a groundwater monitoring plan, YNLR has shared their perspective on traditional knowledge, stating that "TK will have no input into ground water contamination until health risks are noted decades or centuries later." To this end, Denison would like to clarify that the current rigorous groundwater modelling does not indicate there will be groundwater contamination nor health risks from the Project. The groundwater monitoring program will be robust and meet all regulatory standards for the type of mining proposed for the Project. Further, Denison would like to note that consideration of local and traditional knowledge in all facets of the Wheeler River Project will be guided by local and traditional knowledge holders to the extend they wish to share information in relevant areas. Traditional knowledge may or

may not be relevant to groundwater monitoring results, but it may have relevance to the considerations in the planning for such monitoring, as an example.

Kindly,  
Janna

**Janna Switzer**

Vice President, Environment Sustainability & Regulatory

t: (306) 652-8201 x107 | c: (306) 380-7239 | f: (306) 652-8202

345 4<sup>th</sup> Avenue South

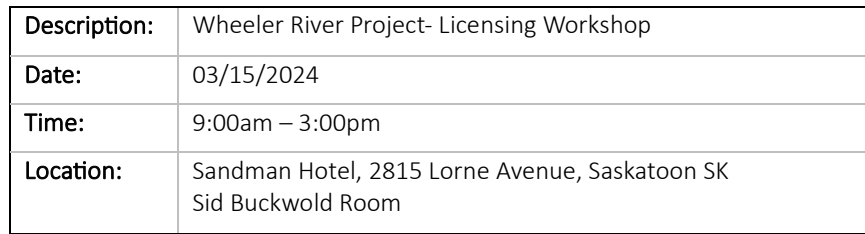
Saskatoon, SK, Canada, S7K 1N3



TSX: DML | NYSE MKT: DNN

[www.denisonmines.com](http://www.denisonmines.com)





Attendees
<b>English River First Nation</b> <ul style="list-style-type: none"> <li>– Angie Campbell</li> <li>– Archie Campbell</li> <li>– Ashley LaPlante</li> <li>– Bernadette Eaglechild</li> <li>– Carol Wolverine</li> <li>– Cheyenna Hunt</li> <li>– Edward Black</li> <li>– Frankie Campbell</li> <li>– Fred Campbell</li> <li>– Irene Apesis</li> <li>– Isidore Campbell</li> <li>– Jason W.</li> <li>– Katrina Maurice</li> <li>– Lawrence McIntyre</li> <li>– Lisa Rossette</li> <li>– Marie Black</li> <li>– Maurice Gunn</li> <li>– Norman Wolverine</li> <li>– Olivia Maurice</li> <li>– Ovid Wolverine</li> <li>– Patrick D’Jonaire</li> <li>– Randy McIntyre</li> <li>– Robin Kusch (Environmental Advisor)</li> </ul>
<b>Denison Mines Corp</b> <ul style="list-style-type: none"> <li>– Carolanne Inglis-McQuay, CSR Director</li> <li>– Janna Switzer, Environment, Sustainability, Regulatory VP</li> <li>– Ryan Nagel, Licensing Lead</li> <li>– Sarah Benson, Environment Manager</li> <li>– Stephanie Lukowski, CSR Coordinator</li> </ul>

# English River First Nation

## Licensing Workshop Report

### Summary: Key Topics and Potential Next Steps

#### Key Topic: Climate Change

- Tipping Points
- Permafrost Thaw
- Natural Disasters
- Emergency Response

#### Potential Next Steps: Licensing Discussion

- Environmental Management Program
- Facility and Equipment Management Program
- Emergency Preparedness and Response Program

#### Potential Next Steps: Other

- Permafrost Characterization
- EA Findings Overview on Climate Change
- EA Findings Overview on Environmental Impacts on the Project

#### Key Topic: Aquatic Environment

- Water Quality
- Whitefish Migration

#### Next Steps: Licensing Discussion

- Effluent and Emissions Monitoring Plan
- Environmental Monitoring Plan
- Biodiversity Management Plan
- Environmental Code of Practice

#### Next Steps: Other

- General Discussion on Effluent Release Point and Area of Whitefish Migration.
- General Discussion on Perspective of Plans in Relation to Whitefish Migration.

#### Key Topic: Terrestrial Environment

- Moose Calving Area

#### Next Steps: Licensing Discussion

- Environmental Monitoring Plan
- Environmental Code of Practice
- Biodiversity Management Plan

#### Next Steps: Other

- General Discussion on the Moose Calving Area
- Approach to Monitoring Moose (What Metrics are Monitored, How are They Monitored)
- General Discussion on Perspective of Plans in Relation to Moose Calving Area.

#### Key Topic: Access to Information

- Publicly Availability
- Baseline Study

#### Next Steps: Licensing Discussion

- Public and Indigenous Information Program

#### Next Steps: Other

- Avenues in Which Information can be Accessed.
- Summary of Baseline Study Findings

#### Key Topic: Education

- School Programs

#### Next Steps: Other

- Discuss Perspectives on School Programs that Related to Mining Industry
- Discuss Person Responsible for Theoretical Design and Implementation of School Program

#### Key Topic: ERFN Specific Processes

- Guardian Program
- Strategic Plan

#### Next Steps: Other

- Discuss Purpose and Interval of Strategic Plan
- Discuss Guardian Program (Purpose, Vision, Relationship to Any Key Topics Above)

# Kineepik Métis Local Land User Meeting Notes



<b>Description:</b>	Wheeler River Project- Licensing Workshop
<b>Date:</b>	05/08/2024
<b>Time:</b>	5:00pm – 7:00pm
<b>Location:</b>	Community Hall, the Northern Village of Pinehouse Lake

Agenda	
5:00pm	Meal
	Opening Remarks
	Opening Prayer
	Introductions
	Presentation & Questions
	Conclusion

Attendees
<b>Kineepik Métis Local</b> Chelsea Iron Mallory Lariviere Damien Georges Vince Natomagan
<b>Denison Mines Corp</b> Carolanne Inglis-McQuay, Director of Corporate Social Responsibility Brianne England, Regulatory Manager Sarah Benson, Environmental Manager Ryan Nagel, Licensing Lead Stephanie Lukowski, CSR Coordinator

## Discussion Notes

<b>KML</b>	How many lbs/year of uranium do you estimate during operation for the Wheeler River Project.
<b>Carolanne Inglis-McQuay</b>	It is estimated at 9,000,000 lbs/year of U3O8 in the environmental impact statement for the Wheeler River Project.
<b>KML</b>	Who monitors right on the site so that employees follow the rules, and do you do inspections? Say if someone changed the oil and who would ensure its safely monitored right on the site. Will there be incident reporting?
<b>Sarah Benson</b>	Yes. Incident Reporting System will be in place. Province and CNSC will inspect the site regularly.
<b>KML</b>	Do you backfill into the ground after they take the uranium
<b>Carolanne Inglis-McQuay</b>	Backfilling where we extract from the ore body is not required due to the structure of the ore body and the ground water.
<b>KML</b>	How do you ensure there is no movement of solution below the monitoring wells and below the ore body?
<b>Carolanne Inglis-McQuay</b>	There is an impermeable basement rock underneath the ore body that the acidic mining solution can not penetrate.
<b>KML</b>	Will the freeze wall go all the way down to the basement rock below the ore body?

# Kineepik Métis Local Land User Meeting Notes



## Discussion Notes

Carolanne Inglis-McQuay	Yes, the freeze wall will enclose the ore body.
KML	There will always be human error. How do we confirm that liquids won't go into the ground water?
Carolanne Inglis-McQuay	Freezing technology is already applied at mines in Northern SK. A groundwater monitoring program will be in place.
KML	Is the ISR mining method for uranium used elsewhere in Saskatchewan?
Carolanne Inglis-McQuay	This method isn't used for uranium in Saskatchewan at present. A similar process called solution mining is common in the potash industry in Saskatchewan.
Sarah Benson	The ISR mining method has been used in other countries for mining uranium.
KML	In the countries that use the ISR mining method for uranium, have they monitored animals after effluent release. What are the impacts to wildlife that are seen through monitoring in other countries? We will still be eating the berries and moose and fish, it would be nice to know the monitoring results from other ISR mines prior to operation.
Carolanne Inglis-McQuay	I understand.
Sarah Benson	We did monitoring before we started work, and we will monitor throughout the Project and after the Project is complete. We provide money to the Province to ensure that funds are set aside to continue monitoring.
KML	Why is your discharge point at the mouth of the river? Water mixes there. Where two lakes meet is the worst place to put a discharge line. Trapping for muskrat and beavers is right in that area. Land users use that area.
Sarah Benson	The EIS shows that there will be no impact within 5m of the discharge location.
Carolanne Inglis-McQuay	The precise point location of effluent discharge has not been finalized. Details programs are still in development. If this is an area of concern to KML we can work with Damien and KML to discuss this process. KML did a comprehensive study on land use points that we designed the Project around. If this point wasn't identified at the time these studies were undertaken, it can still be identified.
KML	Global warming is a reality. Water is changing and warming. What are your plans for changes to the environment like rising water levels and water temperatures. It is important to have a plan in place and not be reactive.
Carolanne Inglis-McQuay	Programs and plans are in development. We will have an emergency response program.
KML	Is discharged effluent safe to drink? Our animals will be drinking it.

# Kineepik Métis Local Land User Meeting Notes



## Discussion Notes

<b>Sarah Benson</b>	No it is not safe to drink. To be clear, it is not safe to drink effluent coming directly from the discharge line. But 5m outside of that discharge location, there will be no impact. We hold water in holding ponds and test before release to make sure it meets parameters. If it doesn't meet parameters, we hold it and continue treating it until its acceptable to release.
<b>KML</b>	Will you be using a lot of water during operation?
<b>Carolanne Inglis-McQuay</b>	I can't recall the exact number assessed in the EIS. A majority of water will come from underground. The amount of water used will be significantly lower than Key Lake and McArthur.
<b>Brianne England</b>	We must have appropriate approvals before we take any water.
<b>KML</b>	Once you extract the uranium, is it liquid? How is it transported? What are the risks with this?
<b>Carolanne Inglis-McQuay</b>	When the uranium comes up the recovery wells it will be liquid and will travel in double walled pipes to the processing plant, about 100m to 200m away. Processing is done on site and we recycle all the mining solution that we are able to. The final product of uranium is solid and will be packed in to drums like they do at Key Lake for transportation. The risks are spills and leaks, which we will be monitoring for and have plans to respond to if they occur.
<b>KML</b>	What KM is the Project?
<b>Carolanne Inglis-McQuay</b>	KM237 on highway 914 approximately 3 hours away, in between McArthur and Key Lake.
<b>KML</b>	Questions about employment.



**From:** [Janna Switzer](#)  
**To:** [Bruce Hanbidge](#)  
**Cc:** [Carolanne Inglis-McQuay](#); [Garrett Schmidt](#)  
**Subject:** Re: [\*\*]YNLR individual comments on Denison's responses.  
**Date:** Tuesday, April 30, 2024 11:14:13 AM  
**Attachments:** [image001.png](#)  
[Outlook-k54cnjwf](#)  
[Outlook-aukuucyr](#)

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Good morning Bruce,

I am following up on my email below sent on April 5, regarding Denison's responses to the YNLR's March 13, 2024 comments. I note that a number of these items were discussed more fully in the Denison / YNLR Board meeting on April 12, 2024 and as such, may inform YNLR's perspective on the status of resolution.

If you can please provide me an update based on your review at your convenience, I would appreciate it.

Kindly,  
Janna

**Janna Switzer**

Vice President, Environment Sustainability & Regulatory

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June 6, 2024

Robin McLeod  
Prince Albert Grand Council  
Chief Joseph Custer Reserve #201  
2300 9th Ave West  
P.O. Box 2350  
Prince Albert, SK, S6V 6Z1

Sent by email: [rmcleod@pagc.net](mailto:rmcleod@pagc.net)

**Re: Denison response to Prince Albert Grand Council comments on the draft Environmental Impact Statement for the Wheeler River Project.**

Dear Robin McLeod:

Denison thanks Prince Albert Grand Council for their review and comments on the draft Denison Mines Wheeler River Project (“the Project”) Environmental Impact Statement (“EIS”). Owing to an administrative issue, Denison was not in receipt of these comments until recently. As a result, we apologize for the delay in providing a response to you.

To begin with, we noted throughout your submission that PAGC highlighted the importance of Denison working directly relevant First Nations in relation to the Project. I would like to confirm to you that, for many years now, Denison has been undertaking important work in this area with a number of interested First Nations who are represented by PAGC. For more information about all efforts in relation to those activities, section 4 of the draft EIS outlines the approach and outcomes in this regard.

As an attachment to this letter, you will find detailed answers prepared by Denison’s full technical team to the comments made on behalf of PAGC to the Canadian Nuclear Safety Commission (“CNSC”) in respect of the Project on the draft EIS, which were shared with the CNSC on March 6, 2023. Please note, the format for our responses is set out in table form, following the manner in which the CNSC directed Denison to respond to certain PAGC comments made in your submission.

We understand that the overall protection of the environment and respectful considerations and consultations with Indigenous communities is important to PAGC as we advance the Project, and can confirm that we are, and have actively worked, to be responsive to issues identified about the Project with those interested First Nations, including those raised by PAGC.

Sincerely,



Carolanne Inglis-McQuay for/

Janna Switzer  
Vice President, Environment, Sustainability and Regulatory

Attach: (1) Table: Denison Responses to PAGC draft EIS Comments

Denison's Responses to Comment from PAGC of the Wheeler River Project draft  
EIS Denison Response – June 6, 2024

**Denison's Responses to Comment from Prince Albert Grand Council (PAGC) (March 6, 2023) for the Wheeler River Project Environmental  
Impact Statement**

Ref. No.	Source	Reference to EIS, appendix, or supporting documentation	Comment Summary (all original submissions can be found on Canadian Impact Assessment Registry reference: 80171)	Denison Response
564	Prince Albert Grand Council (PAGC) (March 6, 2023)	General Comments	<p>Overall Comments from the PAGC submission: The EIS does not address multiple issues related to ecosystems, human health, and the long-term sustainability of the Wheeler River project, particularly Indigenous concerns regarding the loss of caribou, wolverine and other culturally significant animals. There are no details on economic benefits from the mines through Indigenous partnerships, including equity-based participation in the workforce with training opportunities for Indigenous personnel to operate in management roles.</p> <p>[Additional questions on this topic directed to regulators or government entities are included in the CNSC table]</p>	<p><b>The EIS does not address multiple issues related to ecosystems, human health, and the long-term sustainability of the Wheeler River project, particularly Indigenous concerns regarding the loss of caribou, wolverine and other culturally significant animals.</b></p> <p><b>Denison Response:</b> The potential effects of the Wheeler River Project on the aquatic and terrestrial environments have been comprehensively assessed in the EIS and related supporting documentation. The spatial scale is very small (resulting from ISR mining method) of 160 hectares. A conservative approach was taken in the assessment and the overall conclusion was made that there would be no significant adverse residual effects in consideration of proposed mitigations.</p> <p>The Wildlife LSA was designed to capture the majority of the Project effects. The Wildlife LSA extends beyond the Project Area of the site to include a reasonable estimation of where sensory disturbance from Project-related activities would extend and where effects on wildlife including caribou are most likely to occur. Further the Local Study Area for Indigenous Land and Resource Use (Section 11.1) is defined as the Project footprint plus the maximum combined extents of the supporting Valued Components for the Regional Study Area for aquatic, terrestrial, noise, and health as these components can affect the Indigenous resource use environment to ensure that all possible effects to resources were considered. Section 9 describes how consideration of potential effects to wildlife and wildlife habitat are considered within the EIS. In regard to caribou, Denison has developed a Conceptual Caribou Mitigation Plan based on discussions between Denison and Saskatchewan Ministry of Environment. Denison utilized Traditional Knowledge provided by Indigenous communities in the assessment and in the development of the Plan.</p> <p>A Human Health Risk Assessment (HHRA) was undertaken for the Project in Section 10. The HHRA evaluated direct exposure to constituents of potential concern (or contaminants) released to air and water, and through indirect exposure to the constituents associated with soil, sediment, and food, such as fish, wildlife, and plants. The assessment was inclusive of information based on use of traditional foods. The overall conclusion of the HHRA was that there would be no significant adverse effects to human health from the Project.</p> <p>Denison's decommissioning commitment is to return the land back to the Province of Saskatchewan for unrestricted surface land use post-closure. The Project's Conceptual Decommissioning Plan (CDP) is included in the draft EIS. The details of decommissioning and restoration will be refined over time as the Project proceeds. A Preliminary Decommissioning</p>

Denison's Responses to Comment from PAGC of the Wheeler River Project draft  
EIS Denison Response – June 6, 2024

Ref. No.	Source	Reference to EIS, appendix, or supporting documentation	Comment Summary (all original submissions can be found on Canadian Impact Assessment Registry reference: 80171)	Denison Response
				<p>Plan (PDP) will be developed by Denison to support licensing and permitting applications. Prior to executing decommissioning activities, Denison will prepare and submit a Detailed Decommissioning Plan (DDP) to regulators for their review and acceptance, which builds on the PDP.</p> <p><b>There are no details on economic benefits from the mines through Indigenous partnerships, including equity-based participation in the workforce with training opportunities for Indigenous personnel to operate in management roles.</b></p> <p><b>Denison response:</b> Denison, through a Human Resource Development Plan, will initially prioritize Indigenous and non-Indigenous communities in the LSA in terms of employment and training opportunities (anticipated to be with institutions in northern Saskatchewan) and will work with the leadership of these communities to assist in determining hiring and training practices during all phases of the Project, which could include such items as on-the-job training and career counselling to help with advancement from foundational positions, advance sharing of job qualification requirements, clearly identifying training requirements and working with various training institutions to make sure such appropriate training is available, and creation of scholarship and support programs. Priority for employment and training will then focus on Indigenous and non-Indigenous residents of the RSA and then beyond the RSA.</p>
565	PAGC (March 6, 2023)	Loss of Use and Access to Traditional Lands and Resources	<p>The EIS does not capture Indigenous Elders' understanding of the human impact, climate change and cumulative effects on wildlife including caribou or other species at risk and the resulting impacts on Indigenous livelihoods. Denison's EIS states that existing disturbances in the area are from exploration activities with a general description of how disturbances from these activities will be managed. PAGC does not find sufficient evidence that the affected areas can be restored to their former state and will impact woodland caribou habitats.</p> <p>PAGC Elders prioritize the removal or reduction of human disturbances to the landscape for caribou recovery and wish to avoid projects which have a significant environmental impact. PAGC elders do not want to see any animals or</p>	<p>Denison remains committed to conducting meaningful engagement with Indigenous communities potentially affected by the Project and to understanding how the proposed development of the Project may affect the ability of Indigenous peoples to exercise collective Indigenous and Treaty Rights.</p> <p>The potential effects of the Wheeler River Project on the aquatic and terrestrial environments have been comprehensively assessed in the EIS and related supporting documentation. The spatial scale is very small (resulting from ISR mining method) of 160 hectares. A conservative approach was taken in the assessment and the overall conclusion was made that there would be no significant adverse residual effects in consideration of proposed mitigations.</p> <p>The Wildlife LSA was designed to capture the majority of the Project effects. The LSA extends beyond Project Area of the site to include a reasonable estimation of where sensory disturbance from Project-related activities would extend and where effects on wildlife including caribou are most likely to occur. Section 9 describes how consideration of potential effects to wildlife and wildlife habitat are considered within the EIS. In regard to caribou, Denison has developed a Caribou Management Framework based on discussions between Denison and Saskatchewan Ministry of Environment. Denison utilized Indigenous Knowledge provided by Indigenous communities in the assessment and in the development of the</p>



Denison's Responses to Comment from PAGC of the Wheeler River Project draft  
EIS Denison Response – June 6, 2024

Ref. No.	Source	Reference to EIS, appendix, or supporting documentation	Comment Summary (all original submissions can be found on Canadian Impact Assessment Registry reference: 80171)	Denison Response
			<p>plants disappear from the landscapes they use based on their traditional understanding of the relationship between humans and nature. This impacts the ability to practice treaty rights and entitlements to the lands which impact physical and mental health and mixed economy connected to hunting and gathering.</p> <p>PAGC urges Denison to understand and take an eco-cultural approach to preserve wildlife and landscape health when planning mining operations and decommissioning processes. This should include use of Indigenous Knowledge in delineating caribou habitats despite the data and woodland caribou traditional ecological knowledge available in the report published by Mamun and Brook (2017).</p>	<p>Framework. Denison notes that the objective of Mamun and Brook (2017) was to support the provincial range planning process for conservation of woodland caribou. The range planning process for SK1 is currently underway. As needed, Denison's Framework will be updated to be consistent with the management goals defined by ENV for SK1. Additionally, as part of its boreal caribou management efforts, the province is working with industry to develop effective and practice approaches to mitigate potential effects of activities on woodland caribou through offsetting. Denison is committed to continue to work with the province to finalize the habitat offset requirement using the province's habitat offset calculator.</p> <p>Section 11 of the draft EIS provides the assessment of potential Project effects on Indigenous Land and Resource Use (Section 11.1) and Other Land and Resource Use (Section 11.2). The mitigation measures proposed in the aquatic and terrestrial assessments translated into undetectable changes in resource availability to existing and future users and rightsholders. The assessment does not take an eco-cultural approach but rather one focused on VCs, key indicators and associated measurable parameters, which are standard in impact assessment. Mitigation to eliminate, reduce, or control potential adverse effects of the Project on Indigenous Land and Resource Use would apply to any uses proximal to the Project. Given proven mitigation is to be applied to traffic disturbances, noise, air quality, and increased competition for resources, the effects are expected to be minimal.</p> <p>Denison's decommissioning commitment is to return the land back to the Province of Saskatchewan for unrestricted surface land use post-closure. The Project's Conceptual Decommissioning Plan (CDP) is included in the draft EIS. The details of decommissioning and restoration will be refined over time as the Project proceeds. A Preliminary Decommissioning Plan (PDP) will be developed by Denison to support licensing and permitting applications. Prior to executing decommissioning activities, Denison will prepare and submit a Detailed Decommissioning Plan (DDP) to regulators for their review and acceptance, which builds on the PDP.</p>
566	PAGC (March 6, 2023)	Transportation Corridor Impacts to Lands and Resources	Additional traffic and associated noise from the proposed project are a concern and PAGC requests that Denison puts a speed limit of about 70km/hour for trucks in the boreal forest where woodland caribou reside and are used by barren land caribou in winter.	<p>The proposed operation is fly-in, so Project related traffic, and associated noise, to the area would only be related to deliveries of materials to and from the site. On-site staff will not have access to personal (or company) vehicles. The Project will not change public access to the area. The existing gate on Highway 914 near Cameco's Key Lake Operation will remain in place and no changes to the gate and the process for controlling access to Highway 914 north of the Key Lake Operation are proposed as part of the Wheeler River Project.</p> <p>Section 12.3.4.2.1 of the draft EIS describes change in traffic as a result of the Project, including truck average annual daily traffic and average annual daily traffic. Given proven mitigation, as described in Section 12.3.5, to be applied to traffic disturbances and associated noise the effects are expected to be minimal. Section 11.1.5 also describes the mitigation</p>

Denison's Responses to Comment from PAGC of the Wheeler River Project draft  
EIS Denison Response – June 6, 2024

Ref. No.	Source	Reference to EIS, appendix, or supporting documentation	Comment Summary (all original submissions can be found on Canadian Impact Assessment Registry reference: 80171)	Denison Response
				<p>measures to reduce the impacts of traffic and noise, among others. For example, air transportation will be used to transport most workers between the Project site and designated pick-up and drop-off points in communities and noise generating equipment will be situated behind on-site obstructions.</p> <p>In regard to caribou, Denison has developed a Conceptual Caribou Mitigation Plan based on discussions between Denison and Saskatchewan Ministry of Environment.</p> <p>Denison recognizes the level of concern regarding Project related transportation it has received through engagement activities to date and will continue to solicit input on transportation concerns as the Project moves forward. As outlined in Denison's Indigenous Peoples Policy, Denison is committed to respecting Indigenous knowledge and values regarding environmental stewardship and Indigenous peoples' connection to the land, and to minimize potential effects where possible. As an example, Section 11.1.5.3 describes that Denison will require truck traffic to slow down to 40 km/hr for a minimum of 2.5 km on either side of the ERFN and KML (Pinehouse #9) cultural camps, which are understood to occur in September and October (but may be adjusted at the communities direction)</p>
567	PAGC (March 6, 2023)	Consultation and Engagement	<p>PAGC finds that science-based models used for EIA reports put Indigenous people at a disadvantage as Indigenous communities are not involved in the collection, analysis and interpretation of data for models. Indigenous culture does not make use of models, rather, they follow natural changes and patterns which sometimes are not reflected in scientific findings.</p> <p>Requesting feedback from Indigenous communities on a report full of models prepared without Indigenous involvement has limited value as PAGC members are not fully engaged throughout the process. This approach is somewhat disrespectful to Indigenous communities as they are not part of the development process and PAGC reserves the right to reject the EIA or EIS.</p> <p>PAGC requests a commitment from Denison to get Indigenous communities involved in each</p>	<p>Denison acknowledges that Indigenous ways of knowing are distinct from western science, and have included Indigenous knowledge shared by communities in the impact assessment process. For example, Section 10.1.2 describes that Indigenous Knowledge and Local Knowledge were used to inform assumptions used in the human health risk assessment which helped identify human health receptors (i.e., people) who consume traditional foods, specifically in terms of their locations, residency times, and components of the traditional foods diet. In this instance, Indigenous knowledge was used to complement western science.</p> <p>Denison remains committed to conducting meaningful engagement with Indigenous communities potentially affected by the Project and to understanding how the proposed development of the Project may affect the ability of Indigenous peoples to exercise collective Indigenous and Treaty Rights. Through the environmental assessment process ERFN and other Indigenous communities have opted to utilize third party supports to complement their review of the EIS. Third party reviews were supported by both agreements executed between Denison and Indigenous communities, along with participant funding offered by the CNSC. Section 4 of the EIS describes the engagement undertaken with Indigenous communities and organizations.</p> <p>Denison continues to work with its Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, and an example of their continued involvement from the outset to end of a process includes the commitment to collaborating with English River First Nation and Kineepik Métis Local on a community specific monitoring</p>

Denison's Responses to Comment from PAGC of the Wheeler River Project draft  
EIS Denison Response – June 6, 2024

Ref. No.	Source	Reference to EIS, appendix, or supporting documentation	Comment Summary (all original submissions can be found on Canadian Impact Assessment Registry reference: 80171)	Denison Response
			stage of the documentation and report preparation process.	regime, suited to each of their interests and needs, in an agreed-upon fashion. Denison is committed to continual improvement in relation to such collaborative monitoring programs, in order to adapt to areas of interest which can change over time. It is expected that the data collected through such monitoring regimes would also be relevant to other Indigenous nations who may have interest in the Project.
568	PAGC (March 6, 2023)	Economic Benefits, Training and Funding Opportunities	<p>PAGC request additional details from Denison regarding plans to incorporate Indigenous partnership in the economic benefit of the mines, equity-based participation in the workforce and training opportunities for Indigenous personnel to operate in management roles.</p> <p>PACG suggest arranging long-term funding for youth education in science that would prepare them for careers in biology and environmental science, which is very uncommon among Indigenous communities. Increasing Indigenous representation in science and technology, and participation in development planning is therefore a valuable long-term goal.</p>	<p>As outlined in Denison's Indigenous Peoples Policy, Denison recognizes the critical necessity of advancing reconciliation with Indigenous peoples in Canada and the important role of Canadian business in the reconciliation process. Denison is committed to providing Indigenous people and businesses with sustainable economic opportunities and benefits and sharing the economic benefits of Denison's business activities. Denison's Indigenous Peoples Policy sets out priority for Indigenous employment and procurement (among other items). With respect to employment, as noted in the Economics section of the EIS, Residents of Saskatchewan's North (i.e., those resident in the northern administration district of Saskatchewan) are prioritized for employment as an expected condition of the Surface Lease Agreement, similarly for goods and services to service the Project. With respect to procurement, Denison has established an internal procurement policy approach. The approach requires that Denison consider businesses within the local study area first and the Northern Administrative District second, prior to looking elsewhere (southern Saskatchewan and/or outside of Saskatchewan) throughout all phases of the Project.</p> <p>Denison, through a Human Resource Development Plan, will initially prioritize Indigenous and non-Indigenous communities in the LSA in terms of employment and training opportunities (anticipated to be in institutions in northern Saskatchewan) and will work with the leadership of these communities to assist in determining hiring and training practices during all phases of the Project. This may include initiatives associated with youth education in science if that is the interest and priority of the communities. Training could also include such items as on-the-job training and career counselling to help with advancement from foundational positions, advance sharing of job qualification requirements, clearly identifying training requirements and working with various training institutions to make sure such appropriate training is available, and creation of scholarship and support programs. Priority for employment and training will then focus on Indigenous and non-Indigenous residents of the RSA and then beyond the RSA.</p>

# Meeting Notes

Athabasca Basin Tour with the Ya'thi Nene Lands and Resources

Stony Rapids Community Meeting

June 10, 2024 - 12:30 pm

## 1. Agenda

Introductions and Opening Prayer

Lunch

Presentations and Questions - Denison Mines

SK ENV Environmental Assessment Process

Next Steps - Ya'thi Nene Lands and Resources

## 2. Attendees

YNLR: Garrett Schmidt, Steven Foti, Celeste Robillard

SkMOE: Jeff Dereniwski, Brittany Neumeier

Denison: Janna Switzer, Carolanne Inglis-McQuay, Chad Sorba, Brett Boechler, Brianne England

## 3. Action Items

YNLR to get contact information for Doris from Stony Rapids

## 4. Discussion Summary:

- How can we help you help us? Stony Rapids wants to have a relationship with Denison Mines in the future to allow their young people to have a better future.
- Our kids are very intelligent and could make their way if they have the proper training.
- Questions about the new technology and training students to be prepared for success in future roles.
- This is good, you are not taking up a lot of land and you are just drilling some wells.
- We just want the young people to understand what you are bringing to us, and we need to teach our students how to be prepared for future employment.

- We want the young people to be doing the qualified technical jobs and not just shoveling and doing the hard labor, we are tired of doing that work and want the better paying qualified jobs.
- In 5 years, some of our people could be ready for work with Denison Mines
- Young people look to leadership to give them advice on where/what to study.
- Communication is the key, what if you leave today and we never hear about it again until the day it happens.
- Athabasca owns Team Drilling, could look at Athabasca basin drilling capacity, because a relationship is the most important thing (stressing that again)
- What can you do to help us help you? To do a great job at the end of the day.
- Technology new to the region, what kind of technology is that? Is this similar to Cigar Lake? Brings up a liquid/solid/slurry? Are you going to have technical jobs that you are going to employ from the Athabasca basin? Or will you hire the technical people from far away? I see there is less jobs, so we want to make sure our youth are ready to be part of it.
- How does this project benefit the community? How long will the project operate?
  - 2 years construction and 10 years mine life.
- What is the grade?
  - 19% uranium
- Will you share your revenue with the Athabasca community?
  - We are actively working with YNLR on it together.
- Lots of mines develop in our region and we are not shared revenue from those? So, whatever you are taking out of our land we would like to be part of it in revenue sharing. Because you will need our authority to go digging and taking out resources. Look at our streets and roads, we need more funding for roads in the area.
- Air travel is very expensive, we need road infrastructure, roads are in terrible condition.
- If we had better investment from industry, we need to benefit.
- We are getting all the people from southern areas coming in for fishing and tourism, we want them to know that someone cares about their community.
- We have to have a relationship here and should be acting as a unit, we are supposed to be the hub of the north, the place to be, Athabasca Basin has the richest uranium deposits in the world, people should have a better quality of life.
- What will the mine life be?
  - Wheeler River has a 10-year mine operating life (19% grade), THT will be a 6-year mining life (2% grade)



- What is the difference in grade from Cigar Lake? Why would you mine it if it's such a low grade?
- What is the cost to start the mine? What is the benefit of this mining method? Will other people be using this mining method in the future? Should we be asking Cameco to mine with this technology? Is this new?
- How can we get our grade 12's into the right training programs?
- How can we keep our kids in school? Our school only goes up to grade 9. We have done programming to fund students to continue through to grade 12. Now that we have mining companies coming into our territory why wouldn't we have our young people benefit from these projects.
- Find them, recognize them, give them the rewards,
- Training for trades was in the community in the 1980's, heavy duty mechanics, electricians, heavy equipment operators.
- Planning for education facilities to be built throughout the Athabasca region, Stony Rapids should be getting the biggest school.
- Who is your contact for employment?
  - YNLR office in Black Lake.
- 27 companies within the Athabasca region, health, catering, administration, flight planes, drilling.
- Elders, young people, baby boomers want to look to the future to have safe drinking water, safe places to go for our children and their families.
- It would be good not to use a percentage of communities, each community gets so much from the companies, we have less population so we get less right, we shouldn't use that it should be all equally. A lot of funds go through population-wise and a lot of times we don't get enough funding when allocated that way.
- We can't make ends meet with what we get in the community. 80% First Nations, 10% non-Indigenous, 10% Metis. Stony Rapids is non-reserve, Stony Rapids would like to see the road to Points North improved. 2-hour drive takes 8 hours to drive on the condition of the roads.
- We want the best for our communities, down south has the best roads, it isn't fair that northern communities don't get any attention or infrastructure funding.
- People in these areas struggle with addictions and it needs attention.
- This is a good way to do the mining, this is a good method. If I have to sign anything I will because that's how the mining should work. Why would I stop anything because that's the jobs for our people. We don't want them to be shoveling, we want them to have careers that they can progress in.
- We want to grow; we see other communities grown and we have been getting smaller. Stony Rapids population approx. 400. Smaller than some nearby reserves and receive less portion of funding because of that.

- Elder: A lot of elders in the community have passed on. Talking about the mines, what is it going to do for our people and communities? We don't get anything from the mine projects. All the revenues and the government in Ottawa, we are living in an isolated area, we don't have a decent road, how much money has been spent for the many years. Now we have a big hospital, and the ambulances can't drive on the roads. Why don't the government and the mines do something about the roads before going forward with the mine.
- Exploration on a trapline, plane and operations have started again. Helicopter have scared all the animals away which makes it difficult to trap.
- Hardly anyone from the community is working in the mines near Points North.
- Band council involvement in the 1990's, CanAlaska made a partnership with the band and had a 50/50 agreement for the mine.
- We are suffering and don't live in a decent country, isolated area without a decent road. Every vehicle you see is cracked and broken because of the condition of the highways.
- Minister of Transportation from Ottawa came to the community to see the condition of the roads.
- You people come here for money and don't care about the community, this is what I learned from elders. Money talks but the government doesn't do anything about it. People only come to the community for money and minerals. That is not right the way the government is treating us. We don't get anything out of the mine companies and worried the same thing is going to happen.
- We don't have anyone to represent us outside of the community.
- A new mine north of Black Lake, the mine at Patterson Lake close to Cluff Lake.
- When things like this happen, we find out years before but then they don't follow up when the plans are being made. Elders are not being listened to.
- Mining companies pay huge taxes to the government, if you can provide us with infrastructure, it could be a tax write-off with the government.
- Person with Metis society and is familiar with duty to consult letters. Why aren't all people getting copies of the letters? Do they share the letters with the people, no. We need better communication. It feels like nobody is telling us things and that's why people feel uptight.
- Curtis Fiske - Stony Rapids Metis local president.
- If funding is based on per capita, it won't benefit Stony Rapids. Who decided YNLR would represent the 7 communities?
  - Community leadership back in 2016 and 2017.

# Meeting Notes

Athabasca Basin Tour with the Ya'thi Nene Lands and Resources

Black Lake Community Meeting

June 10, 2024 - 6:30 pm

## 1. Agenda

Introductions, and Opening Prayer

Supper

Presentations

Ya'thi Nene Lands and Resources (YNLR)

SK Ministry of Environment

Denison Mines

Next Steps - YNLR

## 2. Attendees

YNLR: Garrett Schmidt, Steven Foti, Celeste Robillard

SkMOE: Jeff Dereniwski, Brittany Neumeier

Denison: Janna Switzer, Carolanne Inglis-McQuay, Chad Sorba, Brett Boechler, Brianne England

## 3. Action Items

N/A

## 4. Discussion Summary:

- Freezing orebody, 400 m below, has that been done anywhere else in Canada, bringing liquids up to surface will that be discharged to surface or back down the wells?
- Leaching of the mining solution?
- How long will the freeze wall be in place? How long will the project be operating?
  - 10-year mine life
- Interest in education and training opportunities for youth to be ready for opportunities with Denison Mines.

- In the past they were told by mining companies there would eventually be jobs, but when things got going the community was overlooked.
- Reason why attendee brought up the previous argument, there was an instance in the past where a job was meant for Athabasca but most of the jobs went to people from the west side. There were also jobs that went to southern people.
- We want employment in our communities. Employment will help to solve a lot of issues that communities are struggling with.
- Far north needs to be recognized for employment. Would like to see more jobs at the Wheeler Project. Keep the Nuhenéné in mind.
- We should look at 80/20.
- We need to train grade 12 graduates to help them stick to a job.
- If northern people are not properly trained, they lose their job after a few years.
- Train the northern people and then we'll see how committed Denison is to the communities.
- We want our youth to be qualified for technical jobs and careers, not just the labourers.

# Meeting Notes

Athabasca Basin Tour with the Ya'thi Nene Lands and Resources

Uranium City Community Meeting

June 11, 2024 - 6:30 pm

## 1. Agenda

Introductions, and Opening Prayer

Supper

Presentations

Ya'thi Nene Lands and Resources (YNLR)

SK Ministry of Environment

Denison Mines Q&A

Next Steps - YNLR

## 2. Attendees

YNLR: Garrett Schmidt, Steven Foti, Celeste Robillard

SkMOE: Jeff Dereniowski, Brittany Neumeier

Denison: Janna Switzer, Carolanne Inglis-McQuay, Chad Sorba, Brett Boechler, Brianne England

## 3. Action Items

N/A

## 4. Discussion Summary

- Would like the hydraulic reports and what PSI will be needed to drill and mine the deposit.
- Midwest project drained all the lakes, Denison project may be close to that.
- Is the mining method borrowed from Europe? They don't have the same sandstone there.
- Have sinkholes/subsidence been observed where ISR mining methods have been used in Europe or other countries?
- How are mining fluids injected into the wells?
- When you are doing this stuff, you are diluting your water. Path of least resistance is where the pressure is going to go.



- I hope your freezing works. I like your system. Your static is based on what level? 200-400 m?
- What do the freeze walls do for the project?
- Are the freeze walls keyed into the basement rock?
- How are you transporting the product to your processing plant?
- Question about leaching and how it can encroach outside of the mining area to the surrounding groundwater.
- Ceiling over the mining area could be made up by sedimentary rock or weaker rock. Risk that pressure of pumping will force fluids upwards into the shallow groundwater.
- How thick is the freeze wall once it's in place?
- How do you monitor the freeze wall, with wells on either side?
- How far apart are monitoring wells spaced?
- Worried about potential long-term consequences from high pressure pumping mining method.
  - Designed to be 60-90 PSI.
- What kind of volumes are you pumping for the brines?
- When you are all done with the mine how do you ensure the groundwater reaches a neutral pH? Do you pump in more fluids?
- How much iron radium solution will be produced as a result of the ore processing?

# Meeting Notes

Athabasca Basin Tour with the Ya'thi Nene Lands and Resources  
Hatchet Lake Dene Nation / Wollaston Post Community Meeting  
June 13, 2024 - 6:30 pm

## 1. Agenda

Introductions and Opening Prayer

Supper

Presentations and questions - Denison Mines

SKMOE Public and Indigenous Participation in EA Process

Next Steps - Ya'thi Nene

## 2. Attendees

YNLR: Garrett Schmidt, Steven Foti, Celeste Robillard

SkMOE: Jeff Dereniwski, Brittany Neumeier

Denison: Janna Switzer, Carolanne Inglis-McQuay, Chad Sorba, Brett Boechler,  
Brianne England

## 3. Action Items

Include CNSC staff (Jes Way, Ryan Froess) in future meetings like this. Action for both YNLR and Denison.

## 4. Discussion Summary:

- Can you clarify that Denison needs to get provincial and federal approvals before they can start mining?
- Can you clarify, when you get permits approved for operation and the information is distributed to communities. How will you distribute the information to these communities who speak Dene. How is our input going to be considered? How do you ensure that the locals get a voice in it?
- In the future, consulting needs to be done in a manner that our people can understand it. Most people in our community communicate verbally in Dene but we don't all know how to read in Dene. Written materials should be provided in English and Dene so that more people can understand it.

- Can you explain about the depth at 200 m, put it into perspective? How many feet is that?
- A small footprint of the project is ok, but the community looks at the new disturbance along with a lot of other activities that are happening on the landscape. Cumulatively, the footprint of mining is not small to communities.
- Not clear on the leaching process? What do you do? Pumps and pipes? What do you add to leach the uranium?
- Will those chemicals be able to escape out of the freeze wall?
- So, this method is used throughout the world? Have there been any malfunctions in the reclamation? What happens to the material that's down there? What potential accidents could happen during operation?
- So, the freeze wall works like a big tank to separate the mining chemicals from the groundwater. Is there a chance for the mining fluids to escape if the freeze wall fails?
- Mining will be done in phases. What do you do with the freeze wall when you move on to future phases?
- Will the freeze walls of earlier phases stay frozen while later phases are mined? In the long run will anything escape to the environment?
- So, there is no way that it would affect the environment in the future, because of the freeze wall?
- If you are pumping all that sulfuric acid into the ground what are the chances that vegetation will ever be there again?
- Theoretically this looks like a good method, but it was tried at McClean Lake, and it didn't work because of our harsh environment. What is the guarantee that we have that it's not contaminated forever? Once something has been destroyed by sulfuric acid you can't reclaim it.
- What happens to all the sulfuric acid that didn't do what it's supposed to do.
- What is the guarantee of the new mining method because it hasn't worked in the past?
- ISR mining works because of the geology (sandstone and basement rock)
- How will you protect against radiation from escaping the leaching area?
- The ore being pumped out, will it be in the building or in pipes?
- In other milling operations, the HVAC units are constantly running because of the chemical processes. When you have sulfuric acid leaching the uranium there are a lot of gases produced. What will happen with the produced gases underground?
- Once the project is over how will the mining area be cleaned up underground?
- Do you have a plant to treat the water?

- Community doesn't like to receive information through a website, the community would prefer in person meetings to receive information.
- The fishing economy was negatively impacted by the mine reporting on the website. Publicizing it for the world without the community being aware is not a good thing. The mines never asked us how we can help you after the fishing economy has been negatively impacted.
- We have not been formally consulted; we have only been given information.
- The water quality is sufficient for provincial and federal legislation, but it isn't satisfactory for the fishing/food industry standards.

**From:** [Ty Roberts](#)  
**To:** [Carolanne Inglis-McQuay](#)  
**Subject:** [\*\*]Missinipe Land Use Plan  
**Date:** Wednesday, June 12, 2024 3:56:25 PM  
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**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Carolanne,

Please distribute to your colleagues who presented today at the LLRIB Traditional Lands & Resources Advisory Committee.

Thanks,

**Ty Roberts, B.S.A, PAg.**  
**Reserve Lands Manager**

Lac La Ronge Indian Band

Lands & Resources

PO Box 480 • La Ronge, SK • S0J 1L0

306-425-2183

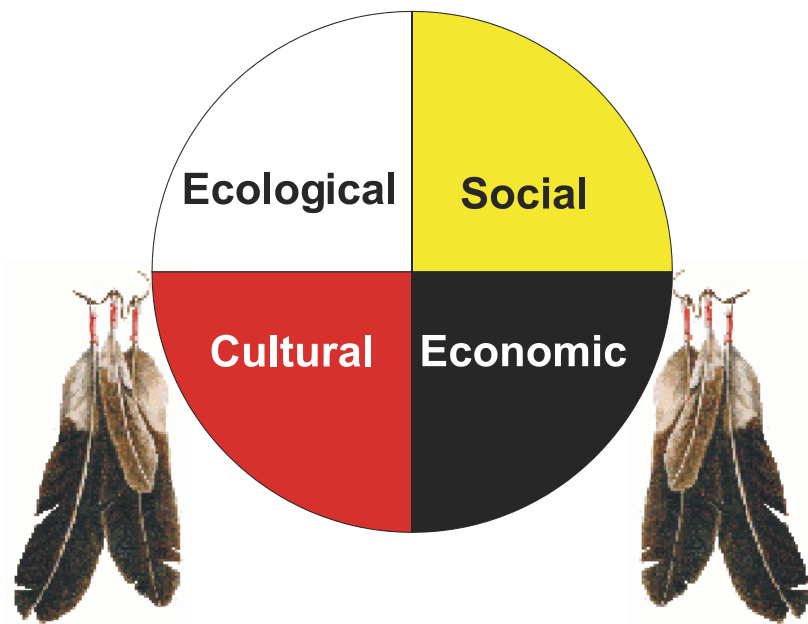
306-425-2170

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# Misinipiy Integrated Land Use Plan



February 2012



Saskatchewan  
Ministry of  
Environment



## Minister's Message

The Integrated Land Use Plan for the Misinipiy planning area represents the culmination of years of hard work, from all those who share an interest in this part of the province. The 3,119,793 hectares that are included within this plan are an integral part of province's environment. Nearly 10,000 people live in this area, many of whom are members of the Lac La Ronge Indian Band. This plan ensures those individuals a balance between environmental sustainability and economic growth.

Water, especially the Churchill River, is very important to the history and future of the area. Water is an integral part of Lac La Ronge Indian Band's culture, providing transportation and food. The translation of the Cree word Misinipiy is "big water", which emphasizes the relationship the Churchill River has to this plan. It is one of Saskatchewan's great natural legacies and is a globally recognized waterway. Provisions for further detailed planning will be completed to add 365,000 hectares of new protected areas. This will add to the province's Representative Areas Network. Pink Lake will become the largest provincially protected area in the province, at 333,000 hectares. Regulatory changes will be initiated to protect these areas under The Ecological Reserves Act.

The land use plan provides a framework to guide land and resource management decisions for more than three million hectares of forest land in northern Saskatchewan. The plan classifies the area into three zones – Protected, Sensitive and Resource Management zones – and identifies detailed objectives and management actions for each, including guidance about which activities may occur in each zone.

The Government of Saskatchewan remains firmly committed to a process of active community and stakeholder engagement. I recognize that we could not have produced this plan without the assistance of our clients and partners and I do want to extend my sincere appreciation to members of the Lac La Ronge Indian Band, the environmental community, mining sector, forestry sector, municipal representatives and other stakeholders who remained steadfast in their commitment to conclude a plan for the Misinipiy area.

I look forward to implementing the direction and priorities defined in the Misinipiy ILUP.



---

Dustin Duncan  
Minister of Environment

## Preface

The Misinipiy ILUP was prepared by the Ministry of Environment (the ministry) in accordance with the provisions of *The Forest Resources Management Act*. Although this planning process included co-ordinating input from other ministries the Misinipiy ILUP only pertains to land and resource management under the mandate of the Ministry of Environment. The ministry recognises their important role of setting a good example for others by acting as model stewards. The ministry is also in a strong position to promote stewardship efforts with its partners and clients. This plan lays a foundation for collaboration and partnership and realizes the objectives contained in this document will in large measure, rest on the strength of those who will take on the implementation of the plan's responsibilities.

The LLRIB has developed a set of principles as written in their Policy on Traditional and Contemporary Land Use, October 26, 2005. These principles, as well as LLRIB's economic development plan, have guided many of the recommendations within this document. The band is also embarking upon development of a more detailed traditional land use study using the principles they have adopted to guide use of traditional lands.

Nothing in this plan is intended to abrogate or derogate from the existing Aboriginal or treaty rights of Aboriginal Peoples in Saskatchewan, as recognized and affirmed by Section 35 of the Constitution Act 1982. The provincial government has a legal duty to consult and accommodate First Nations and Métis communities on matters that have an impact on Treaty or Aboriginal Rights. Although this planning process included consultation with the Lac La Ronge Indian Band and this document provides broad information about interests in the area the Province will continue to consult on individual matters in order to meet its consultation obligations.

## Acknowledgements

The ministry would like to thank those organizations and individuals who participated throughout the planning process. This plan could not have been produced without the assistance of those who took the time to share their knowledge, ideas, wisdom and insight. Many spent long hours preparing for and participating in local and regional advisory board meetings – a process that spanned more than seven years.

Since this plan was initiated in 1999 more than 250 attendees have spent time participating in more than 225 local and regional advisory board meetings. The Ministry of Environment is indebted to those individuals who remained committed to attending the advisory board meetings and devoted their time to make a positive contribution to the process. In particular, the LLRIB Land Use Planning Task Force and community members, the Saskatchewan Environmental Society, Canadian Parks and Wilderness Society (Saskatchewan Chapter), Canoe Saskatchewan, Métis interests, Saskatchewan Snowmobile Association, Saskatchewan Mining Association, Cottage Owners Association, Saskatchewan Ecotourism and many other public participants. The ministry respects the privacy rights of advisory board members and other public participants, and has not included a list identifying individual contributors. Regrettably, several

contributors to this plan have passed away since planning began. To their families and friends, the ministry extends sincere gratitude for the contribution provided by these dedicated individuals, and the positive impact they made during the planning process.

In addition, a number of provincial government ministries and branches were also instrumental in providing input and guidance to the objectives and actions contained in this plan. The Ministries of Energy and Resources, First Nations and Métis Relations, Municipal Affairs, Agriculture, Tourism, Parks, Culture and Sport, Highways and Infrastructure, Saskatchewan Watershed Authority, Health and SaskPower all participated in the planning process to varying degrees and will continue to play a role in working with the ministry to implement many of the actions contained in this plan.

Finally, the ministry would like to extend sincere appreciation to the members of the LLRIB for their passion, commitment and dedication in working with government to produce this plan.

## Dictionary of Acronyms used in the plan

BAP	Biodiversity Action plan
COR	Commercial Outdoor Recreation
CRU	Churchill River Upland
DFO	Department of Fisheries and Oceans
DUC	Ducks Unlimited Canada
EBM	Ecosystem-based management
FMA	Forest Management Agreement
FNFS	First Nations Forestry Service
FNMR	Ministry of First Nations and Métis Relations
FRMA	<u><i>The Forest Resources Management Act</i></u>
FRMR	<u><i>The Forest Resources Management Regulations</i></u>
FSIN	Federation of Saskatchewan Indian Nation
HRIA	Heritage Resource Impact Assessment
ILUP	Integrated Land Use Plan
INAC	Indian and Northern Affairs Canada
KMLP	Kitsaki Management Limited Partnership
LLRIB	Lac La Ronge Indian Band
MER	Ministry of Energy and Resources
MHI	Ministry of Highways and Infrastructure
MOA	Memorandum of Agreement
NFSC	National Forest Strategy Coalition
NFS	National Forest Strategy
NGO	Non-Government Organization
NLMC	Northern Labour Market Committee
NSTA	Northern Saskatchewan Trappers Association
NTFP	Non-Timber Forest Products
NWWG	National Wetlands Working Group
PBCN	Peter Ballantyne Cree Nation



RAN	Representative Areas Network
SARA	<u><i>Species at Risk Act</i></u>
SCDC	Saskatchewan Conservation Data Centre
SIAS	Saskatchewan Institute of Applied Science and Training
SIIT	Saskatchewan Indian Institute of Technology
TPCS	Ministry of Tourism, Parks, Culture and Sport
TLE	Treaty Land Entitlement

Note: A glossary of terms is provided in Appendix 1.

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## Executive Summary

The Misinipiy planning area encompasses 3,119,793 hectares and is home to almost 10,000 people, many of whom are members of the LLRIB. Situated in northern Saskatchewan, the Misinipiy planning area extends from Wapawekka Hills in the southeast, Besnard Lake in the southwest, near Watham Lake in the northeast and as far northwest as the Key Lake mine.

The purpose of the Misinipiy ILUP is to provide objectives and potential actions to guide government agencies, interested parties and partners on land use management activities that affect the health of resources within the Misinipiy planning area. Development of an ILUP for the Misinipiy planning area was initially driven by a commitment to Kitsaki Management Limited Partnership (KMLP) (the business arm of the LLRIB) and Zelensky Brothers Forest Products for a long-term licence to harvest Crown timber by way of a Forest Management Agreement (FMA). However, as time went by, emphasis on forest resources lessened and the focus shifted to mining, mineral exploration and use of the Churchill River system. Please refer to map 1, Appendix 6 to view maps of the Misinipiy planning area and the LLRIB's traditional territory.

After more than seven years of collecting and analyzing information from extensive public consultation, the ministry has produced a plan that balances the management of provincial resources with ecosystem health. Combining traditional knowledge with science, the plan follows fundamental principles of ecosystem-based management (EBM) by:

1. focusing on the long-term view;
2. concentrating on ecosystem health and integrity;
3. making decisions based on science, traditional knowledge and human values;
4. involving those affected by the decision, with an interest in the outcome;
5. using adaptive management to learn from experience; and
6. looking at the big picture.

The ecosystem-based management approach is fundamental to the Misinipiy plan. It promotes a systemic approach by considering whole systems – landscape, plants and animals, soil and water and people and their interactions. The goal of ecosystem-based management is to maintain the ecological integrity of the land so that human needs and values can continue to be realized in a healthy environment.

The Misinipiy area is very special to the people who live in the area and to those who travel to this area to recreate. The ILUP reflects significant consultation with northern indigenous people and recognizes both the LLRIB Strategic Plan as well as the band's Policy on Traditional and Contemporary Land Use (2005). Both documents articulate the band's vision for economic diversification, environmental health and the need to focus on a future that offers a range of opportunity for band members. In particular, the Misinipiy plan recognizes the band's interest in securing a FMA, and their desire for greater responsibility in managing the resource base in their traditional territory. This plan supports the government's

established policy of promoting economic development in the North, and is in keeping with government commitment to promote First Nation partnerships and capacity building through integrated resource management and stewardship of the natural resource base.

*The ministry seeks to promote partnerships and enable capacity building opportunities with First Nations and Métis through ecosystem-based management and stewardship of natural resources. Resource conservation and respecting treaty rights will take precedence over other demands on the forest resources.*

During extensive community involvement, advisory boards from eight northern communities discussed a wide variety of issues that are reflected in the plan. The plan calls for action in a number of areas and contains goals, objectives and actions that together, make up an overall management plan for the area.

This plan reflects comments obtained during the 225 local and regional advisory board meetings held since 1999; the formal two-month public review period; suggestions made during two public open house meetings; comments received from the public, as well as internal provincial government review. In addition, this plan was subject to an independent Peer Review, conducted by Geospatial Consulting Inc., the purpose of which was to ensure the plan met the intent of the legislation.

*Detailed objectives and actions represent a balance of interests that promote environmental health and highlight opportunities for sustainable economic and social development. The objectives and actions described in the plan reflect current science and traditional knowledge. During consultation, participants stressed that environmental health and sustainable economic growth are interdependent – a vision supported by the ministry through several provincial actions and commitments.*

The Misinipiy plan promotes an integrated approach to management of the land base. The plan addresses issues of importance to residents, special interest groups, industry and government alike. The Misinipiy ILUP integrates with two other ILUPs; the Amisk-Atik ILUP to the east and the draft Pinehouse Dipper ILUP to the west. Similar to the other ILUPs, the Misinipiy plan identifies the need to further develop a plan to conserve the Churchill River corridor; it reflects the importance of effective wildfire management; addresses forestry values, social and economic issues; provides for traditional use; speaks to planning boundary issues; and reflects the importance of aquatic resources, wetland values, human and cultural heritage, mineral and recreational values. These issues are the management responsibility of a range of government departments and branches. Given the number of issues and the diversity of interests involved, the plan promotes an integrated ecosystem-based management approach.



The Misinipiy plan is based on a consistent zoning framework developed by the ministry and found in other ILUPs. It establishes three distinct land use zones:

1. Protected Zone - identifies areas within the planning boundary that are worthy of protection;
2. Sensitive Zone - recognizes a wide range of values that are sensitive to disturbance; and
3. Resource Management Zone - promotes sustainability and responsible use, while providing clear direction for resource development.

The plan contains detailed objectives and management actions for the Protected Zone, Sensitive Zone and the Resource Management Zone. The land use actions focus on achieving a specific set of actions but are premised on the same governing principles: to plan for the sustainability of all resources, to adopt an integrated approach to managing the resources of the Misinipiy planning area and to focus on maintaining and enhancing the local quality of life.

The Misinipiy ILUP represents the first step in a process that continues to be evolutionary. Responsibility for plan implementation will rest primarily with the ministry who intends to establish a committee comprised of area representatives. This group will be actively involved in assessing the plan and providing ongoing recommendations to the ministry. Good decision-making is based on sound information (both science and traditional knowledge) and an accurate, reliable knowledge base. The ministry's natural resource management approach recognizes that ecosystem health is important to secure long-term economic, social and cultural prosperity. Maintaining the ecological integrity of the Misinipiy planning area is our most important goal.

## **1 Introduction**

### **1.1 Why Do We Need A Plan for the Misinipiy Area?**

As a publicly owned and managed resource, Crown lands provide benefits to all. They provide recreational opportunities for high quality outdoor recreation and offer employment and income to those who derive their livelihood from the resource base. Public land in general, provides a variety of benefits and opportunities to a range of users.

Crown lands are an integrated ecosystem of trees, plants, animals, air, water, soil and people, all dependent upon one another to varying degrees. Sustainable resource management requires good planning. Good planning starts with clear, concise and well-understood objectives for future conservation, protection, land and resource use.

This plan is aligned closely with the Canada Forest Accord, signed by the Minister of Environment in June 2004. This Accord commits the province to work toward sustainable forest management, guided by the National Forest Strategy (2003-2008), which sets out strategic directions and specific commitments intended to move Canada toward the goal of achieving sustainable forests. As a member of the National Forestry Strategy Coalition, Saskatchewan supports the principle that “the long-term health of Canada’s forest will be maintained and enhanced, for the benefit of all living things, and for the social, cultural, environmental and economic well-being of all Canadians now and in the future.”

The strategic objectives that are articulated in the Canada Forest Accord are supported in various land use plans that have been prepared by the ministry for specific areas of the province (e.g. Amisk-Atik and Pasquia Porcupine). The intent of each plan is to provide general direction for the management of provincial Crown lands and resources within the boundaries of the planning area.

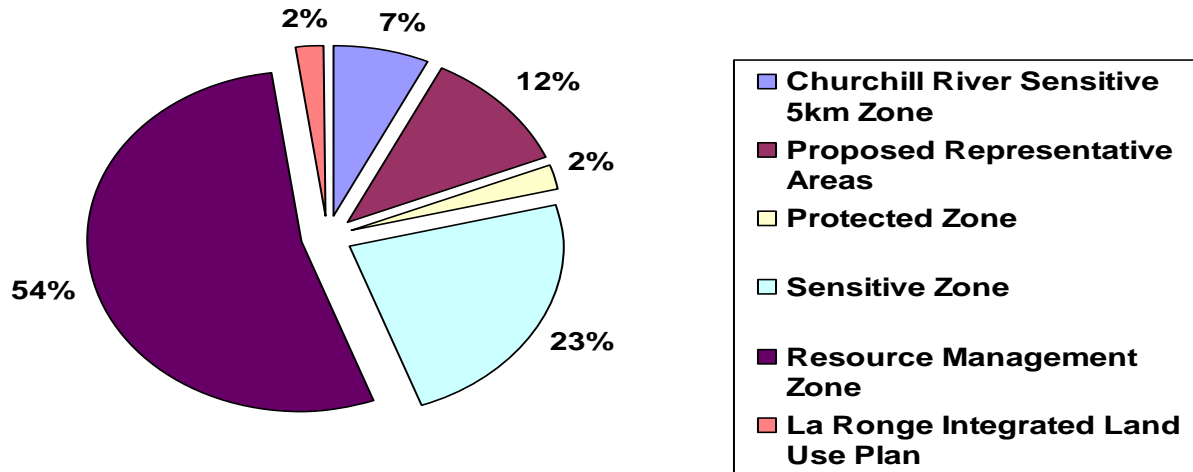
*In addition to promoting economic development in northern communities, this plan provides a framework for integrated resource management by providing support to our First Nations and Métis to take a more active role in the allocation and wise use of our resource base. In keeping with the province’s Biodiversity Action Plan (BAP), the plan for the Misinipiy planning area acknowledges the importance of conservation and sustainable use and the critical importance of leaving for “future generations a nurturing and dynamic environment rich in its biodiversity.”<sup>1</sup>*

The Misinipiy ILUP contributes to the province’s Biodiversity Action Plan by promoting the completion of a system of protected areas that are representative of the Province’s terrestrial and aquatic ecosystems. The Biodiversity Action Plan identifies a provincial target of 12% protection to ensure that the wide range of Saskatchewan’s natural features and diversity are conserved. Currently, 8.7% (5.9 million hectares) of the province is protected through the Representative Areas Network (RAN). The Misinipiy ILUP proposes that three new sites be added to the RAN: two are proposed for protection as ecological reserves: Pink Lake (333,000 ha) and Foster Lake (23,000 ha) with the third site at Geikie River (9,000 ha) proposed for designation under The Parks Act.

Of the Misinipiy ILUP planning area land base, approximately 2% has been designated as protected through various legislation. When combined with the land base proposed for designation within the RAN, more than 14% of the planning area will be protected.

<sup>1</sup> Caring for Natural Environments: A Biodiversity Action Plan for Saskatchewan’s Future, 2004 P. 7

Viewed comprehensively, the plan provides the following land base allocation:



This is discussed more fully in Section 6, where the objectives and actions associated with the three zoning categories are outlined in more detail.

### ***1.2.1 Integrated Land Use Planning***

Integrated land use planning is a process that is based on the principles of Integrated Resource Management (IRM). Planning decisions are made that take into account the health of the whole forest ecosystem to meet environmental, economic and social objectives. Integrated Resource Management promotes a holistic and balanced approach by considering a broad range of interests, whether they are value or resource driven.

Integrated land use planning establishes a formal process for public engagement and provides guidelines for the allocation and protection of resources and values associated with the planning area. It also establishes a process for plan implementation and monitoring.

Integrated Land use planning follows a standard seven-step process:

- Plan Initiation
- Information and Data Gathering
- Meetings
- Draft plan Preparation
- Draft plan Review
- Draft plan Revision and Approval
- Plan Implementation and Assessment

Additional efforts were made in the case of the Misinipiy plan to engage the northern communities and to work closely with members of the LLRIB to ensure the interests of northerners were appropriately reflected.

### ***1.2.2 Ecosystem-Based Management***

The ministry has adopted an ecosystem-based management approach to planning and resource management. Ecosystem-based management is defined as “the integration of ecological systems and human activities to maintain or enhance the health and integrity of an ecosystem, including ecosystem function and structure.” The key principles of ecosystem-based management are:

- focus on the long-term view – ecosystems must be sustained for the long term well-being of all life;
- concentrate on ecosystem health and integrity – work within the ecological potential of sites and landscapes to ensure that ecosystems can renew themselves to the greatest degree possible;
- make decisions based on science, traditional knowledge and human values – use the best available scientific and traditional knowledge as a foundation for decision making. Ecological goals must be integrated with economic and social goals;
- involve those who will be affected by decisions or who have an interest in the outcome – work together with citizens, landowners, local governments, aboriginal communities, interest groups, businesses, industry and other agencies to identify problems and opportunities and find common solutions;
- use adaptive management by learning from experience – adjust our thinking and actions as we gain better understanding;
- look at the big picture – treat air, water, land and living things as interconnected parts of an ecosystem. Think about the effects of proposed actions at several geographic scales and through time.

There is general recognition that ecosystems are very complex, and more work in this area is necessary because we are only beginning to understand the complexity and value of natural systems. Scientific research is revealing important links between human health and environmental quality, and the role of the environment as a foundation for a healthy economy and its contribution to social well-being.

By recognizing linkages among the economy, people and the environment, integration of these values through ecosystem-based management reflects the need to consider all resources, their value and use in policy development, planning and decision-making. By managing our activity on Crown lands, we can do the best possible job of keeping the resources healthy while supporting a range of sustainable human enterprises.

## 2 Background & Context

### 2.1 History of the Planning Area

The Misinipiy planning area has a rich and vibrant history. Settlement was influenced in large part by the extensive natural resources found in the planning area, and in particular, the rivers and waterways that provided a focus for the Woodland Cree who settled there, and later, for fur traders who established trading posts and larger settlements along the banks of the Misinipiy (Churchill) River and Lac La Ronge.

The establishment of missions in the planning area served as an introduction to European culture and religion for many of the native Cree people. In later years, these early missions promoted the establishment of permanent settlements, resulting in the emergent settlement pattern we see in the planning area today. Regardless of the existing settlement pattern, there has been a long-standing cultural and spiritual value system that has permeated the planning area, and a deep-rooted connection between the people and the land.

The planning area has a long history of fish and wildlife use, primarily for the sustenance of the First Nations and Métis people. It was recognized at an early stage, however, that the hunting, trapping and fishing resources of the area were not limitless and there was a need to diversify the economy by promoting agricultural practices, hence the rationale by the ancestors of the LLRIB for selecting the farming and hay lands associated with the Little Red Reserve – a site that was selected in 1897. The Little Red Reserve is not included in the Misinipiy ILUP. Over the years, advancements in technology have made the area more accessible, and in the 1930s, the ability to promote fly-in fishing opportunities resulted in the introduction of a resource-based tourism industry. The members of the LLRIB continue to rely on the resource base as a means of economic growth and prosperity.

### 2.2 Ecological Description of the Boreal Shield Forest

The Misinipiy planning area consists predominantly of boreal forest, lakes, rivers and wetland habitats encompassing an area of 3,119,793 hectares. The planning area is comprised of hundreds of clear lakes connected by more than 10,000 km of rivers and streams, providing habitat for abundant fish populations. Geographically, the planning area includes the Wapawekka Hills in the southeast, Besnard Lake in the southwest, near Wathaman Lake in the northeast, and up to the Key Lake Mine in the northwest corner. The location of the planning area and communities is illustrated in Appendix 2, Map 1.

The planning area consists of three Ecoregions:

- Churchill River Upland Ecoregion (part of the Boreal Shield Ecozone);
- Mid-Boreal Upland Ecoregion (part of the Boreal Plain Ecozone); and
- Mid-Boreal Lowland Ecoregion, (part of the Boreal Plain Ecozone).



The Churchill River Upland (CRU) lies entirely on the Precambrian Shield, has undulating topography with clear, cold lakes. Bogs and fens occur in the low-lying areas, connected by abundant streams and rivers. The uplands are rocky with thin shallow soils, developed from morainal and glacial fluvial deposits. The CRU contains the second largest nesting population of bald eagles in North America, second only to Alaska.

The Mid Boreal Upland (MBU) is characterized by rolling and undulating uplands and plains. This ecoregion commonly contains a mosaic of forests, open and treed fens, bogs and water. Most of the MBU is characterized by loamy grey soils, however near the shield, soils are often sandy and poorly drained. This ecoregion contains most of the lands that have historically been used by the forest industry in the province.

The Mid Boreal Lowlands (MBL) consist of nearly level low-lying topography. This ecoregion is dominated by fens and other peatlands. In the northern portion of the ecoregion, peatlands with open cover consisting of tamarack and black spruce are the dominant vegetation cover. However, sandy glacial deposits and limestone outcrops are also common.

### ***2.2.1 Landscape, Geology, and Vegetation***

The landforms and underlying geologic deposits of the planning area were formed by a succession of glacial and interglacial periods. Precambrian-aged sedimentary, volcanic, and intrusive rocks underlie most of the planning area. A northeast-trending structural pattern predominates. The geologic domains have the potential to contain a variety of base metals, gold and other precious metals. Of particular note are the La Ronge Domain, a dominantly volcanic belt which contains numerous gold and base metal deposits and the Wollaston Domain, a sedimentary belt which contains base metal deposits. At the southern end of the planning area, younger flat-lying Phanerozoic-aged sedimentary rocks overlie the Precambrian Shield. These contain deposits of coal and a variety of industrial minerals such as silica sand and kaolin clay. A thin veneer of young glacial deposits, consisting of tills and stream and lake-deposited material covers the bedrock over much of the planning area.

The planning area consists of a variety of tree species including white and black spruce, jack pine, tamarack, trembling aspen and white birch as well as peat lands (treed and open bogs and fens) and boreal wetlands. The forest mosaic provides habitat for a wide variety of animals, birds, invertebrates and other wildlife species. For the most part, the planning area is characterized as a hardy, adaptable and moderately diverse environment that has evolved over thousands of years. Substantive stand-changing events including wildfires, insects, disease, wind events, severe droughts and other extreme weather conditions have prevailed over time. These natural disturbances are part of the life cycle of most boreal plant species, which have evolved to thrive under a wide range of climatic and soil conditions.

In general, the productivity and diversity of the boreal forest increases from north to south in the planning area. The topography on the shield is more rugged than off the shield. Glacial sediments dominate south of the shield while rock defines the surficial geology of the Precambrian Shield, and the stature of vegetation cover reflects the changes in nutrient and moisture-holding capacity of the underlying soils.

## **2.3 The Planning Area Today**

The Misinipiy planning area is home to nearly 10,000 people, with over 70 per cent of the permanent residents being of Aboriginal descent, most of whom are members of the LLRIB. Dene and Métis people also reside in the planning area. A majority of the LLRIB's population in the planning area live on 18 reserves, 16 of which are within the planning area, including Kitsaki, Grandmother's Bay, Lac La Ronge, Sucker River. Communities within the planning area include Stanley Mission, Brabant Lake, Air Ronge, La Ronge, and Missinipe. In addition, eight reserve land areas within the planning boundary are inhabited seasonally by members of the LLRIB.

The vast size and scope of the planning area present a varied landscape and the presence of the Churchill River as well as numerous lakes and rivers make this area attractive for wilderness recreation and a variety of camping, canoeing, hiking and snowmobile pursuits by residents and visitors alike. The Misinipiy planning area offers an attractive lifestyle to the people who live here. Many derive their livelihood from traditional pursuits including hunting, fishing and trapping. Unemployment however remains a concern for many local communities and residents.

## **3 The Integrated Land Use Planning Process**

### **3.1 Developing the Misinipiy ILUP**

The Misinipiy ILUP is the result of more than seven years of consultation, data collection and analysis. The planning process was designed with northern community residents in mind and as a result, the ministry undertook extensive consultation throughout the northern communities to enable community members to obtain information and to actively participate in the identification of issues and management actions.

At the outset, the initial planning process began with meetings and community consultations with members of the LLRIB. In addition, discussions were held with the northern communities, other government agencies, NGOs and special interest groups. Local Advisory Boards were created to encourage community-based input. A Regional Advisory Board was also established with representation from a broad spectrum of special interest groups and government. The consultation process is discussed in more detail below.

While many of the issues raised have been identified in this plan, there were a number of operational or „on-the-ground“ concerns that will be addressed through ongoing discussions that will be undertaken as part of implementation of the plan.

#### **3.1.1 Public Involvement and Review**

Throughout the planning process, the ministry made extensive efforts to engage the northern communities in the area. The consultation process for the Misinipiy ILUP was a unique and dynamic exchange of information that included Cree translation services and provided meaningful opportunity for input into the plan as it evolved.

The Ministry of Environment conducted more than 225 formal meetings throughout the northern communities. In addition to soliciting input from northerners, special interest groups and NGOs, the ministry completed a number of one-on-one meetings to allow various stakeholders to comment on specific areas of interest, and to provide feedback on some of the developing actions.

From the outset, the focus has been to produce a plan that reflects the interests of planning area residents and stakeholders, and one that embodies the spirit and principles of ecosystem-based management. Understanding the issues and concerns of the stakeholders has enabled the ministry to produce a balanced plan that supports ecosystem integrity, environmental sustainability and wise resource use. Securing this insight from constituents has been an ongoing effort throughout the planning process. The following table summarizes the key stages in developing the plan and the public consultation and engagement efforts that have been made in this regard:

<b>Planning Stage / Development</b>	<b>Extent of Public Consultation</b>
Terms of Reference	Each community was directly involved in editing and approving terms of reference for local and regional advisory boards.
Issue Identification	Local and regional advisory boards provided specific information about the issues important to their community.
Recommendations	Local and regional advisory boards provided specific recommendations to address the issues previously identified, which were then expressed in the plan actions.
Identify Resource Values	Local and regional advisory boards provided specific information identifying resource values throughout the planning area, which were then captured in the zoning framework. Much help was received from elder interviews.
Zone Boundary Establishment	Zone boundaries were reviewed and adjusted based on information provided at local advisory boards and elder interviews.
Draft plan Edits (Versions 1, 2, 3)	Local and regional advisory board members and the general public provided edits to three versions of the draft plan.

A public review of the draft plan was held from January 23 to March 17, 2006 for a total of 54 calendar days, and was advertised in several newspapers, local radio, the ministry's website, and posters distributed in each community where advisory board meetings had taken place. The draft plan was mailed out to more than 150 members of advisory boards, interest groups, and the public. Various government departments and branches were emailed the draft plan. Extra copies were made available at the government office in La Ronge, and the LLRIB offices of councillors located in La Ronge, and in Stanley Mission, Grandmothers Bay and Brabant Lake. The draft plan was placed on the ministry's website and available for download. The ministry gave clear instructions that comments were welcome and could be provided to the Forest Service office in Prince Albert by March 17, 2006.

Community involvement and consultation will continue after the Misinipiy ILUP is approved. The ministry remains committed to an ongoing process of community engagement and intends to create a committee comprised of area interests to assist with plan implementation and monitoring. In addition, this plan calls for the development of a comprehensive land use planning process to be initiated for the Churchill River 5 km corridor, within the Sensitive Zone. The ministry is also committed to initiating this planning process and engaging northerners in the planning process and will also continue to engage and actively support the participation by members of the public, special interest groups, First Nations, business, northern communities, and others in the implementation of the Misinipiy ILUP.

### ***3.1.2 Local Advisory Boards***

From the start of the planning process, the ministry focused on producing a plan for the people. To this end, Local Advisory Boards were established in eight northern communities in the planning area, with regularly scheduled meetings held over the six-year period during plan development. Meetings were held in La Ronge/Air Ronge, Hall Lake, Stanley Mission, Grandmothers Bay, Missinipe, Brabant Lake, and Sucker River. Detailed minutes of each meeting were recorded and the discussions emerging at the community level resulted in many significant contributions to this plan.

As noted above, many issues that were raised have been addressed in this document. More detailed concerns and issues that reflect „on-the-ground“ concerns however, are more appropriately addressed at other stages of planning. These operational issues are of critical importance and the ministry has prepared a Compendium of Operational Issues for the Misinipiy planning Area that will be provided to those directly involved in plan implementation. In this way, all issues of concern will be appropriately addressed.

### ***3.1.3 Regional Advisory Board***

In addition to the Local Advisory Boards, a Regional Advisory Board was also created. The Regional Advisory Board (RAB) consisted of representatives from each of the northern communities (Town of La Ronge, Village of Air Ronge, Village of Pinehouse) industry representatives (ecotourism, outfitting, mineral exploration, wild rice growers, trapping, mining, forestry, tourism and commercial fishing), and other interest group representation (Canadian Parks and Wilderness Society, Saskatchewan Environmental Society, Canoe Saskatchewan, Native Women of Fish River, youth representation and the La Ronge Wildlife Federation). A number of government agencies also participated as observers, offering technical information when required, including Ministry of Energy and Resources (MER), Government Services and Ministry of First Nations and Métis Relations (FNMR).

There was considerable debate at the Regional Advisory Board meetings on a number of issues, and the planning process took a number of unique turns over the course of the plan's development. The Regional Advisory Board met over a four-year period and discussed a number of fundamental matters including the Terms of Reference for the RAB, the level of plan detail, the responsibilities of RAB members and the degree of protection needed for the

planning area. The group was unable to reach a consensus and further RAB meetings were put on hold in early 2004.

### ***3.1.4 First Nations and Métis***

The Province of Saskatchewan seeks to establish a new relationship with aboriginal people in the province. This relationship, first and foremost, is a political one between the elected provincial government and the political organizations and associations representing Saskatchewan's First Nations and Métis. It is a government-to-government relationship that is based on an affirmed commitment to build new, equitable partnerships with aboriginal people in the province – one that has mutual trust and respect for aboriginal leadership and protocol as its foundation.

This plan could not have been prepared without the extensive support provided by the Chief and Council of the LLRIB, and the participation, dedication and commitment of those band members who participated on the Local Advisory Boards and the Regional Advisory Board. While the preparation of the Misinipiy ILUP involved a number of First Nation and Métis organizations, the support provided by the LLRIB deserves special mention.

### ***3.1.5 Lac La Ronge Indian Band***

The LLRIB played a pivotal role in the development of the Misinipiy ILUP. Chief and band council were actively involved in discussions with government officials and Ministry of Environment staff and there were many members of the band who participated in community level meetings and who played an active role at the Local Advisory Board and Regional Advisory Board tables.

The band developed and shared its Policy on Traditional and Contemporary Land Use and during the preparation of the Misinipiy plan, and made a commitment to complete a Strategic plan for the band – a first in its history. The Strategic plan articulates the band's values, vision and priorities for the future. The Misinipiy ILUP has been prepared with this vision and strategic thinking in mind.

Aboriginal communities in Canada and abroad have completed various types of traditional knowledge and land use studies as part of their efforts to protect many of their traditional sites for future generations. These studies have identified land used for hunting, fishing, trapping, plants, burial sites, and sacred areas. Local and traditional data collected by the LLRIB provided essential information for the development of the Misinipiy ILUP.

The Government of Saskatchewan will continue to focus on ways to support the band in achieving its long-term vision. Committed to collaboration, partnership and capacity building, the ministry will work with the LLRIB to promote development of a Forest Management plan in the planning area and will facilitate a FMA to allow the band to manage the resource base.



In addition, the ministry will pursue opportunities to work in partnership with the LLRIB on future planning of the Churchill River Corridor within the Sensitive Zone. This initiative is in keeping with the band's long-term desire to take a more active role in actions occurring within their traditional territory.

### ***3.1.6 Government Ministries and Agencies***

The Misinipiy planning process involved a number of provincial government ministries and Crown Corporations. The ministry took the lead in developing the ILUP, gathering information and drawing on a knowledge base from a wide range of resource management specialists.

Ministry of Energy and Resources attended Advisory Board meetings and worked with staff at the ministry to identify potential mineral deposits and reviewed the plan's progress in light of its mandate and legislative responsibilities. The Ministries of First Nations and Métis Relations, Government Services, Agriculture, Tourism, Parks, Culture and Sport, Highways and Infrastructure, SaskPower, Saskatchewan Watershed Authority, and Health were also involved in a variety of capacities. Some ministries attended Advisory Board meetings at the start of the planning process while others were available to provide ongoing advice and guidance. Still others participated in plan review.

### ***3.1.7 Stakeholders, NGOs and Interest Groups***

The development of an ILUP for the Misinipiy planning area also involved a number of financial stakeholders (those who have a financial interest in the land base), NGOs and special interest groups. Mining interests, the forestry sector and the interests of environmental groups have continued to emphasize the importance of finding a balance in the plan. The environmental community in particular, represented by a number of organizations and individuals, have emphasized the critical importance of ecosystem-based management as a fundamental guiding principle for the plan.

It is worth noting that many of the environmental groups participated as volunteers, such as Canadian Parks and Wilderness Society, Saskatchewan Environmental Society, and Saskatchewan Canoe Association on the Regional Advisory Board and devoted countless hours to attend meetings across the province. The environmental community has played a pivotal role in bringing forward, a deep-rooted appreciation for the importance of environmental health and ecosystem sustainability.

## **4 Key Issues Affecting the Misinipiy Planning Area**

The Misinipiy Planning Area is unique. Rich in resources, the area offers an abundance of recreational, economic and resource-related opportunities. This part of the province has a high population of aboriginal people, and among them, a high proportion who derive their livelihood from traditional pursuits like hunting, trapping and fishing. While there are forestry interests, mineral dispositions, and a well-established tourism sector, many people

here continue to live off of the land. Managing the land sustainably with an emphasis on ecosystem integrity is critical given the traditional uses that prevail here. Consideration of all forest resources, and not simply for industrial purposes or exploitation, is required and paramount.

#### **4.1 Economic & Social Issues**

Perhaps the most critical issues facing the planning area are the economic and social challenges faced by the aboriginal people. Within the planning area, some communities face an unemployment rate of 85 per cent. This data is supported by the Federation of Saskatchewan Indian Nations (FSIN) whose research suggests the current socio-economic conditions within First Nations communities will not be adequate to support their future or the future of Saskatchewan. Additional population projection data completed for the band suggests that most of the future band growth will occur near existing reserves. As one of the fastest growing populations in Saskatchewan, the need for economic diversification is of paramount concern to the elected leaders.

##### ***4.1.1 Economic Development***

The planning area has a long history of resource-based economic development. The LLRIB currently holds a Term Supply License (TSL) that includes areas inside and outside their traditional lands and allows the band to harvest timber within the terms of the Kitsaki/Zelensky TSL agreement. This TSL is an interim license that, while recognized as a source of employment and income for local members and residents, also acts as a bridging mechanism to enable the LLRIB to secure long-term forest management tenure with a FMA.

As noted by the LLRIB:

“The TSL and completion of the FMA present a very real opportunity to secure collateral for major economic development projects. The acquisition of the TSL has provided the required equity for large projects that are currently recognized and accepted by banking institutions. Banking institutions view these agreements as a long-term tenure over the resource that is critical for long-term sustainable business viability. Without it, development of resources on and off reserve is virtually impossible.” (LLRIB, 2005)

The LLRIB is interested in pursuing a FMA with the province, and as a first step toward managing the resource base. In light of this, the band has formulated a set of Principles For Traditional Land Use, focusing on the following key practices:

- The balanced use of natural resources so that the use of traditional lands is balanced and provides benefits to band members and band partners in development. To this end, the band will strive to protect the relationships and natural condition of the land, lakes, rivers, plants, and animals. They will balance the needs of spiritual and cultural pursuits, hunting, fishing, trapping, harvesting of medicinal and food plants, recreation, and commercial and industrial development.

- The sustainable use of traditional lands. To this end, the band has articulated the following in its Policy on Traditional and Contemporary Land Use:

“We believe that our traditional lands and the resources they contain are a heritage from our ancestors and must be maintained as a legacy for our children and all future generations.” (LLRIB, 2005)

As a component of managing forest resources the LLRIB has taken the opportunity to establish the Heritage Trust Fund Agreement. This Trust Fund is has been set up as a long term asset for use and benefit of the Band. The establishment of this trust fund directs the forest company to pay a set dollar value per cubic meter harvested into a trust account. It is hoped that this fund will assist in band development and provide an opportunity to achieve greater financial independence. Successful businesses operating in the planning area can provide positive examples for other potential ventures. Government can also play a role in encouraging economic development by identifying opportunities and encouraging partnerships.

**Objective:**

1. To support the vision of the LLRIB to develop a FMA as a first step in managing the resource base.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Initiate discussions with the LLRIB to develop the FMA.	<b>Ministry of Environment</b> , LLRIB	Ongoing
Encourage the development of value added processing such as: traditional tannery, fish processing, cannery and tree nursery.	<b>LLRIB</b> , Ministry of Environment	2013/2014

#### **4.1.2 Community and Reserve Expansion**

Within the Misinipiy planning area, the population of the LLRIB is growing. According to the latest provincial census, First Nation communities are among the fastest growing populations in Saskatchewan, and the population of the planning area reflects many of the provincial trends, namely that the aboriginal population in Saskatchewan is projected to increase from 135,000 people in 1995 to 434,000 people in 2045 (FSIN, 1996). It is clear that the population base of the LLRIB is also growing. Census data compiled for the band as of November 2007 has the band population at 8,440. In some communities, growth is occurring so rapidly that expanding the boundaries of these communities may be necessary to accommodate the growing population.

The following table lists the LLRIB population statistics (November 2007):

<b>Community</b>	<b>Population</b>
La Ronge	1733
Kitsaki	664
Little Red River	279
Hall Lake	494
Sucker River	341
Grandmother's Bay	363
Stanley Mission	1562
Total On Reserve	5436
Total Off Reserve	3004
<b>Total band Membership</b>	<b>8440</b>

Community expansion is of particular concern for some of the larger communities such as Sucker River and Stanley Mission, where the shortage of available land for new housing may restrict this new growth. While the ministry must protect the environment from permanent deforestation - and communities from wildfire – the ministry must also recognize local communities and their expansion needs. The jurisdiction and responsibilities of the federal government in regard to treaty issues must also be respected.

#### **Objective:**

1. Continue to manage the resource base for all users while recognizing the needs of the LLRIB to resolve community and reserve expansion issues.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Initiate land and infrastructure committees (if they do not already exist) in each community to assist with orderly future development.	<b>LLRIB</b>	2012/2013
Consider Fire Smart actions in community expansion plan in order to protect against potential damage from wildfire.	<b>LLRIB, Ministry of Environment</b>	2012/2013

#### ***4.1.3 Employment, Education, and Training***

To achieve employment objectives, the ministry understands that the development of a skilled labour pool is closely tied to education (the acquisition of basic knowledge) and training (the acquisition of an enhanced set of skills). In combination, skills training and education create the foundation for capacity building, and thereby contribute in a significant way to establishing an employment base for the future.

Although the ministry has limited authority to actively address employment and educational issues through the land use planning process, the plan promotes economic diversification and, as such, needs to be closely aligned with those agencies that have a specific mandate for education and training. Providing employment opportunities to northern residents will result in the retention of young people which is a significant concern to band members and will contribute to community stability. Education is the key to economic, cultural and social development. Governments have to be supportive to ensure success.

The LLRIB has already established its own post-secondary education department that offers courses on reserves through the First Nations University of Canada, the University of Saskatchewan, and the University of Regina. In recent years, satellite courses have also been offered through the Saskatchewan Communications Network, with individuals successfully achieving university credits and degrees without having to travel outside of their community.

The demographics for the LLRIB indicate that a high proportion of the band membership is under the age of 25. In addition, future growth projections suggest that most of the band growth will occur on reserves. For these reasons, employment issues are a prime concern for band leadership and management. Considering the long-term scope of the Misinipiy plan, the ministry recognizes the need for more long-term, year round (full time) employment, and supports the ongoing efforts of the Northern Labour Market Committee (NLMC). The NLMC addresses training and employment needs in the northern administration district, focusing on jobs in the forestry, mining, oil sands and commercial fishing sectors.



The NLMC also plays an active role in meeting training needs in the Misinipiy planning area of Saskatchewan. Co-chaired by FNMR, the NLMC is one of several labour market committees supported by the Ministry of Advanced Education, Employment and Labour across the province. Northern training institutions (*e.g.*, Northlands College, SIIT) and many resource industries are all members of the NLMC.

At present, there are several training programs that exist in La Ronge, including the Saskatchewan Indian Institute of Technology (SIIT), Northlands College, Mikisiw School, the Métis Employment and Training of Saskatchewan Inc., and apprenticeship training through the LLRIB. In addition, the Saskatchewan Institute of Applied Science and Training (SIAST) has partnered in the past with other training facilities to provide specialty programs.

At present the Lac La Ronge Indian Band provides well over 1500 jobs to the planning area. In keeping with the long-term strategic vision required for these objectives, the LLRIB's Policy on Traditional and Contemporary Land Use provides a resource development plan guided by a number of fundamental principles, including a key proviso that looks "to fully educate, train, and counsel our people so that they may participate in the development of our natural resources and our economy." In addition, the role of Kitsaki Management Limited Partnership "encourages and supports education and training to prepare people for employment and economic opportunities." KMLP is also committed to maximize aboriginal employment in Kitsaki and band enterprises through a training oriented work environment that encourages on-the-job skill development and training.

It is clear there are many agencies and organizations that have a role in education and training for northern residents, suggesting that the employment, education and training needs of northern residents must be viewed strategically, with initiatives carried forward to support the long-term employment goals of the LLRIB and of all northern residents. Capacity building, enhanced skills development and the alignment of an education system that affords local people the opportunity to study in advanced fields will lead to diversified employment opportunities. Positioning northern residents to effectively meet the opportunities of the future requires this long-term vision.

### Objectives:

1. Support the LLRIB and other northern communities desires to diversify the economic base by improving job creation and employment opportunities within the planning area.

Actions	Responsible Agencies (Lead Agency Bolded)	Initiation Timeline
Provide, as possible information to assist northern organizations in identifying priority areas with respect to education and training needs and initiatives that are related to resource-driven employment opportunities.	<b>Ministry of Environment</b> , FNMR, NLMC, NSTA, LLRIB	Ongoing

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Encourage the LLRIB, Métis, and local business leaders to work cooperatively with FNMR to develop actions to improve job creation and employment opportunities.	<b>FNMR</b> , LLRIB, NLMC	Ongoing
Encourage LLRIB, Métis, and municipal communities to participate in the ongoing activities of the NLMC.	<b>FNMR</b> , LLRIB, NLMC, Ministry of Environment	Ongoing
Promote resource management training and employment opportunities in the planning area through local training initiatives.	<b>Ministry of Environment</b> , LLRIB, FNMR, NLMC, NSTA	Ongoing

## 4.2 The Churchill River Corridor

The Churchill River is a world-recognized waterway in the heart of Saskatchewan's boreal forest. A significant system of lakes and tributaries, the Churchill River offers exceptional fishing, canoeing and recreational opportunities and provides access to spectacular vistas and wilderness experiences. In its entirety, the Churchill River flows west to east for 2100 km through the provinces of Alberta, Saskatchewan and Manitoba before emptying into Hudson Bay. Within the Province of Saskatchewan, it is frequently described as the backbone of the massive Churchill River drainage basin that covers some 72,000 square kilometres. The Cree name for the Churchill River is "Misinipiy" or Great Water. The river is aptly named, given that it drains about one quarter of the province and includes eleven of Saskatchewan's fifteen largest lakes including Reindeer Lake, Wollaston Lake and Lac La Ronge, each more than 400 square km in area.

The Churchill River has figured prominently in Saskatchewan's history. A major exploration and fur trade route, the Churchill River continues to traverse the landscape and the traditional territory of Saskatchewan's First Nations. For many, the Churchill River weaves across their homeland. For others, it offers a source of recreational relaxation and rejuvenation. Traditional fishermen find sustenance in the waters of the Churchill, hunters and trappers earn their living along its banks and on the surrounding land base, while modern day adventure enthusiasts pursue their interests in canoes, kayaks or on foot.

In 1995, a government proposal was presented to designate the Churchill River as a heritage river system, affording it Canadian Heritage River status. Widespread concern was expressed by northern communities in particular, that they had not been properly consulted. As a result, the proposal to designate the Churchill as a heritage river was abandoned and has not been pursued since that time.

The historic and modern day significance of the Churchill River is recognized in particular by the LLRIB who view the river system “as a heritage resource for future generations of its people.”

The Churchill River is a resource both worthy and in need of protection. Any initiative that focuses on the future management of the Churchill River system must involve the Lac La Ronge Indian Band.

To date, managing values along the Churchill River has been conducted in an *ad hoc* manner, without the benefit of a comprehensive plan or a secure funding base to provide basic services such as campsite maintenance or garbage pickup along shorelines outside of the Lac La Ronge Provincial Park. At this time, initiatives focusing on the Churchill River are undertaken on a piecemeal basis as a result of individual or collective interests.

In 2004, representatives from Stanley Mission and Grandmother’s Bay as well as the ministry formed the “Churchill River Advisory Committee” and met twice for the purposes of developing a plan to manage the Churchill River that crosses the traditional territory of the LLRIB. These communities are recognized for their strong ties to the Churchill River along with their ongoing role in its management. The initial planning area identified by the Churchill River Advisory Committee consists of a delineated corridor that runs approximately 5 kilometres on either side of the Churchill River from Nipew Lake in the west to Frog Portage in the east (outside of the Misinipiy planning Area). Community members are continuing to promote a more focused conservation effort along the length of the Churchill River in the hope that a more comprehensive management effort will emerge and the Churchill will offer an even greater focus for promoting tourism in the area. The Ministry of Tourism, Parks, Culture and Sport continues to be involved in planning for those areas of the Churchill River that are within the Lac La Ronge Provincial Park, and outside of this planning area.

In recognition of its historical and modern day significance, the Misinipiy ILUP has designated the Churchill River Corridor as a Sensitive Zone, establishing a 5 km zone on either side and along the length of the river. The Misinipiy ILUP calls for a comprehensive plan to be prepared for the Churchill River Sensitive Zone. Until a more comprehensive plan is completed, the recommendations included in this ILUP will guide activities and uses in the Churchill River Corridor. Implementation efforts will focus over the long term on developing an understanding between the province and the LLRIB concerning ongoing resource stewardship of the river corridor.

### **Objective:**

1. Promote and maintain the integrity of the Churchill River Sensitive Zone.

Actions	Responsible Agencies (Lead Agency Bolded)	Initiation Timeline
Develop a comprehensive land use plan for the Churchill River Sensitive Zone. In developing the plan, consult with and engage LLRIB, stakeholders and other interests.	<b>Ministry of Environment</b> , TPCS, LLRIB	2012/2013
Develop a Memorandum of Understanding with the LLRIB about future planning or use of the Churchill River Corridor (Sensitive Zone).	<b>Ministry of Environment</b> , LLRIB	2012/2013

### 4.3 Forest Management

There are a number of items that relate forest management practices within the Misinipiy planning area. Some of the concerns expressed by northerners during the preparation of the Misinipiy ILUP, perhaps most notably, the impact of timber harvesting and resource allocation on traditional uses, stem from past practices and are concerns that are deeply rooted in history.

In order to gain understanding among residents and interest groups, the ministry has demonstrated that current forest management practices have improved significantly. As discussed earlier, completion of the Misinipiy plan and the inclusion of actions to provide the LLRIB and its members with the opportunity to be engaged in decisions about management of the resource base honours a commitment made to the band in 1998. Both the Province of Saskatchewan and the LLRIB view the Misinipiy plan as a first step toward LLRIB economic self-sufficiency, a foundation to build capacity, and a Forest Management plan that will implement the principles of ecosystem-based management.

A Forest Management Plan (FMP) prescribes the goals, objectives and actions to guide forest management activities. An FMP for the Misinipiy area would adhere to the principles of sustainable resource management, adaptive management, and community consultation. The FMP would establish desired future forest conditions, complying with principles and objectives of the Misinipiy ILUP, provincial legislation, regulations, standards, policy and guidelines. In compliance with the requirements of *The Environmental Assessment Act*, companies developing a forest management plan must also complete an Environmental Impact Assessment (EIA) prior to signing a FMA.

In partnership with government, the LLRIB will share both the responsibilities and inherent benefits associated with managing the forest resources. As proponents for a FMA, the band will be responsible for ensuring that on-the-ground forest management practices comply with all applicable policies, legislation, regulations, standards and guidelines. Through the FMP, the band will be required to ensure the long-term health and sustainability of the forest, and will need to ensure that its actions are in keeping with this plan, and with the expectations of

its members. For its part, the ministry will continue to be responsible for compliance and enforcement, and will take an active role in working with the band to ensure all required practices, including those identified in the Misinipiy ILUP, are adhered to.

There are currently 366,270 hectares licensed as a Term Supply License (TSL) to the Kitsaki/Zelensky partnership, in and adjacent to the planning area. Please refer to Appendix 2, Map 3 – Forest Licences for a visual delineation of the extent of current forest licence boundaries in and adjacent to the Misinipiy planning area.

### Objective:

1. Encourage and support the efforts of the LLRIB to develop a Forest Management Plan.

Actions	Responsible Agencies (Lead Agency Bolded)	Initiation Timeline
Encourage the LLRIB to develop a Forest Management Plan, leading to a FMA.	<b>Ministry of Environment, LLRIB</b>	2012/2013

## 4.4 Wildfire Management

In response to the devastating fires that swept the province in 1995, Saskatchewan embarked on an extensive public consultation process to update the existing wildfire management policy. A new Wildfire and Forest Insect and Disease Management Policy Framework was approved in 2003, which established the protection priorities used to develop the provincial wildfire management actions. These actions focus on protecting human life, communities, the commercial forest and major public infrastructure.

Saskatchewan's Wildfire Management Strategies direct the province's wildfire suppression responses. Many factors are taken into account in combating wildfires, including: lives at risk; what zone the wildfire is in; the chances of suppression success; potential costs of suppression; the value of what is being threatened; the complexity of fire behaviour as influenced by weather, topography and fuels; availability of resources; other suppression priorities and demands; whether the area will benefit ecologically and last but certainly not least, the possible danger to fire crews. A map of the wildfire zones is located in Appendix 2, Map 4.

The province is divided into select fire zones: Community Full Response Zones; High Value Commercial Forest Full Response Zones; Modified Response Zones and Observation Zones. The provincial objectives relating to fire management continue to focus on those values that are most important to people, but the emphasis is on allowing fire to play a more natural and beneficial role on the landscape, and managing extreme costs that have become aligned with fire management jurisdictions across continental North America, and globally. The ministry



believes healthy, vibrant forests that are naturally renewed by fire or through forest harvest that mimics natural fire, are in the best interest of northern residents, businesses and the province.

The majority of the Misinipiy planning area, (all land lying north of the Churchill River) is within the wildfire Observation Zone. In this Zone, fire is generally allowed to play its natural role on the landscape. Areas below the Churchill River are protected as Full or Modified Response Zones, with all communities identified for Full Response, the highest level of protection. Threatening fires occurring within 20 kilometres of communities are managed with efforts focusing on initial attack and sustained action until the fire has been suppressed.

### Objectives:

1. Continue to provide an appropriate level of fire response, as identified for the planning area.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Develop wildfire suppression plans that will balance the protection of human life and property with ecological impacts. This should provide opportunity for input by First Nations, residents, land users and interested parties.	<b>Ministry of Environment</b>	On-going
Promote and support the involvement of First Nations and Métis in fire fighting efforts.	<b>Ministry of Environment, LLRIB</b>	On-going
Invite FMFP to attend future land use planning meetings to foster a better understanding and facilitate input into fire management planning process.	<b>Ministry of Environment</b>	2012/2013

## 4.5 Traditional Use

There is a well-established association between the aboriginal people of the planning area and the land. There is a long-standing history and tradition of resource-based development and today there are many planning area residents whose ties to the land continue in the form of traditional lifestyles. By definition, traditional use refers to the following key elements:

- Trapping and fur conservation opportunities.
- Use of remote cabins to maintain a traditional lifestyle.
- Harvesting plants, animals and fish for sustenance, medicinal and spiritual purposes.

- Unrestricted access throughout their traditionally occupied territory.
- Protection of sacred sites.

Many of the planning area residents are concerned that existing non-traditional uses and future development of forest resources might affect their lifestyle. Finding a balance between uses and users of the resource base is critical. Also critical is the need to practice sustainable use. This plan recognizes the importance of local traditional ecological knowledge and the importance of providing ongoing access to desirable areas including hunting, fishing, trapping, gathering, burial and ceremonial sites through the maintenance of an environmentally sensitive network of roads, trails and portages.

The ministry recognizes the importance of maintaining traditional use opportunities in perpetuity, in the context of ensuring treaty rights while meeting obligations to manage Crown land and forest resources for the benefit of all residents. To this end, considerable success has already been achieved by the LLRIB and the ministry in developing and expanding inventories of traditional use locations and in finding solutions to balance traditional uses with non-traditional uses.

Please see Appendix 2, Map 5 for more information on trapping blocks in the planning area.

#### **Objective:**

1. Support traditional lifestyles in accordance with the values articulated by the LLRIB elders, leadership and membership.
2. Recognise that the LLRIB views certain plant and animal products of the forest as essential for maintaining physical and spiritual health, not just as a potential commercial resource.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Consult with the LLRIB to ensure traditional uses are not adversely impacted by proposed developments.	<b>Ministry of Environment</b> , LLRIB, TCPS	Ongoing

## **4.6 Planning Area Boundary**

The original boundaries of the Misinipiy planning area were changed at the request of the LLRIB Council to be more closely aligned with the traditional territory of the band. There is a boundary-related issue involving the traditional lands of the Lac La Ronge Indian and the Peter Ballantyne Cree Nation (PBCN).

The LLRIB and the PBCN agreed that the Fur Conservation Areas associated with each First Nation are not consistent with their respective traditional territory boundaries. Despite a Band Council Resolution by the PBCN proposing a boundary change, this matter remains

outstanding and may require future alignment of the Misinipiy ILUP planning area boundaries to better match traditional territory boundaries, once these have been clarified.

The Misinipiy ILUP is influenced by and in turn influences the plans that have been prepared for adjacent geographies. With respect to the Misinipiy planning area, adjacent plans include the Amisk-Atik IFLUP, the Pinehouse Dipper ILUP, the Park Management Plan for Lac La Ronge Provincial Park and the La Ronge Integrated Land Use Management Plan. From a land use planning perspective, the province has an interest in ensuring that any issues that transcend planning area boundaries are identified and addressed in a consistent manner.

### Objective:

1. Ensure the plan is administered in a consistent manner by identifying any trans-planning area boundary issues and ensuring all actions are consistent from one planning area to another.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Adjust (if necessary) planning area boundaries of the Misinipiy ILUP and the Amisk-Atik ILUP based on the outcome of negotiations between the LLRIB and the PBCN.	<b>Ministry of Environment</b> , LLRIB, PBCN	2012/2013
Coordinate communication activities in plans adjacent to the Misinipiy ILUP to ensure management goals and actions do not conflict.	<b>Ministry of Environment</b> , TPCS	2012/2013
Initiate negotiations with Government and the current FMA holder to include the N-5 and N-6 Fur Blocks within the Misinipiy planning area.	<b>Ministry of Environment</b> , LLRIB	2012/2013

## 5 The Zoning Framework

The Misinipiy ILUP is based on a three-fold zoning typology: a Protected Zone, a Sensitive Zone and a Resource Management Zone. A map outlining the boundaries of the three zones is found in Appendix 2, Map 6 – Zone Structure.

A three-step process was used to establish the zoning framework:

Step 1: Information Gathering. Land value locations were identified across the land base.

Step 2: Boundary Establishment. Concentrated value areas were grouped.

Step 3: Zone Definition. Management objectives were defined for each zone and permitted land uses were identified in keeping with the defined objectives.

The zoning framework enables the ministry to determine the most suitable activities that can occur, keeping in mind the demands on the land base from uses and users and the need to promote the principles of ecosystem-based management. The zoning framework mirrors a consistent approach utilized by the ministry in other land use plans and will enable decisions to be made for the planning area to:

- Maintain areas in a natural state and promote environmental conservation for long-term study;
- Protect Aboriginal rights and traditional uses, and ensure treaty commitments are maintained;
- Protect public interests for recreation, angling, and hunting with consideration for all citizens; and
- Allow opportunities for resource development, providing societal and economic benefits for citizens and the province.

The zoning framework establishes a blueprint for the future of the planning area and promotes the following key values:

- clean air and water;
- a renewable source of forest products;
- abundant wildlife and fish habitat, and sustainable populations;
- crucial minerals for fuel, science and manufacturing;
- employment needs for local populations through business opportunities;
- traditional lifestyles;
- a variety of recreational opportunities; and
- visual aesthetics.

The recommended zoning framework and the specific objectives and management actions for each zone provide the foundation for the plan. The objectives for each zone reflect the specific values that were articulated by northerners and planning process participants. A brief description of each of the three zones follow.

### **The Protected Zone**

Within the Misinipiy planning area, the Protected Zone comprises approximately 433,000 hectares. A total of 12 per cent of the planning area is proposed for new designations within the province's RAN (approximately 365,000 ha). In total, once the three proposed sites have been appropriately designated, over 14 per cent of the land base in the planning area will fall into the Protected Zone. Traditional uses are permitted within the Protected Zone.

The Pink Lake and Foster Lakes sites are proposed for identification as representative area ecological reserves while the Geikie River site is proposed for protection under *The Parks Act*. Once approved, the Pink Lake site, at 333,000 hectares in size, will be the largest

protected area in the province. Other areas in this zone are already protected under various other pieces of legislation, including *The Ecological Reserves Act* and *The Parks Act*, including the Wapawekka Hills Representative Area, the Hickson-Maribelli Lakes Pictographs Lakes Pictographs Protected Area, and several provincial recreational sites and heritage properties. The Lac La Ronge Provincial Park is not part of the Misinipiy planning area.

### **The Sensitive Zone**

The Sensitive Zone, including the 5 km corridor on either side of the Churchill River, constitutes 954,000 hectares or 30 per cent of the planning area. Within the Sensitive Zone, resource development may be permitted where it does not conflict with other management objectives and where identified values will not be adversely impacted. Traditional uses are permitted in this zone.

It is intended that a comprehensive plan will be developed for the Churchill River corridor, recognizing that the long term intent will be to protect the natural elements of this ecosystem while supporting other activities.

### **The Resource Management Zone**

The remainder of the planning area - a total of 56 per cent including the La Ronge Integrated Land Use Management Plan, or approximately 1,731,000 hectares, is zoned under the Resource Management Zone. Here more intensive development of timber and other resource-related development is permitted on the basis of resource sustainability. It should be noted that while resource development is permitted, development proposals will be evaluated for compliance with existing legislation, regulation, policies and land use plans (i.e. La Ronge Integrated Land Use Plan). The Resource Management Zone is not „open“ to broad scale development and all proposals will take environmental, social and economic impacts into account. Within the Resource Management Zone, traditional uses are permitted.

Any activities that are permitted to occur within each of the three zones must be in compliance with all applicable provincial and federal legislation, regulations, standards, policies and guidelines.

It is conceivable as new information becomes available that the zoning framework may be amended from time to time. The process for amending the plan is discussed in more detail in Section 7.

## **5.1 Information Gathering**

Information gathering was by far the most critical stage in developing zoning for the plan. Information for the zoning framework was collected from a variety of sources that included local traditional ecological knowledge from interviews with members of the LLRIB, inventories of known values from within the ministry and values from other government departments and stakeholders.



In addition to local and traditional knowledge, information was secured from Regional Advisory Board mapping sessions, Local Advisory Board mapping exercises and reviews of initial maps, heritage information, registered and unregistered recreational canoe routes and areas, known locations of fish and wildlife habitat values, special areas, land disposition information, RAN enduring features, watershed data, Churchill River view shed (extent of land that would be seen from a canoe on the river), mineral resource potential, mineral claims, prospecting permits, mineral leases, current boundaries of protected areas, estimated commercial forestry potential, and stream networks.

The data gathering stage enabled planning staff, through extensive community consultation and personal interviews, to evaluate and assess existing information sources while enabling local residents to identify and define values they deemed important. Values identified by northern residents included but were not limited to: burial and spiritual sites, fish spawning areas and important fishing locations, cabins and hunting grounds, camping sites, trails, woodland caribou calving grounds, and First Nation settlements of archaeological and cultural significance. Each of the identified values were digitized and mapped by the LLRIB, shared with the ministry (agreeing that the location of these values would remain confidential), with the information dataset remaining in the band's possession. The methodology used to delineate zones and the rationale for defining the three zones is discussed in detail below.

## 5.2 The Three Land Use Planning Zones

### 5.2.1 The Protected Zone

Traditional uses including hunting, trapping and fishing are permitted. Resource extraction and development, including forestry and mining are generally not permitted.

#### ***Primary Objectives:***

- ***To protect and manage natural, recreational, and cultural values of the area.***
- ***To permit activities compatible with a wilderness setting and the long-term protection of ecological values.***

The Protected Zone covers approximately 433,000 hectares or just over 14% of the planning area. The plan includes identification of 365,000 hectares for new protective designations, a step that also supports the Province's RAN objectives. The Protected Zone identifies areas that are to be afforded maximum protection because of their natural, cultural heritage and/or recreational values as defined in the RAN.

Within the Protected Zone traditional uses such as trapping, hunting, and fishing are permitted; however, logging, mining and energy exploration and development are prohibited. It is intended that existing commercial activities (e.g. any that are established as of the date of approval of this plan) including their renewal and/or transfer of ownership, will be continued and maintained even though they may now be occurring within a protected zone.

Within the planning area, there are sites that have been identified and protected under various pieces of legislation including the Wapawekka Hills Representative Area Ecological Reserve, the Hickson-Maribelli Lakes Pictographs Protected Area, as well as several provincial recreational sites and heritage properties. The total area protected by these designations is approximately 68,000 ha or 2% of the planning area.

Saskatchewan's RAN defines an overall plan aimed at conserving representative, unique landscapes and enduring features across the province. A key role of representative areas is to serve as benchmarks or long-term reference points that can be used to measure the impact of management practices being applied outside of the network. Generally, ecological benchmarks should be large areas of high ecological integrity, with little or no historical or currently intensive use that allow natural disturbances to continue. Wildfire, insect and disease infestation and other natural disturbances will only be controlled where it threatens public safety or external resources.

The RAN's overall target is to conserve 12 per cent of Saskatchewan's total area in representative landscapes, ideally with designations occurring in each of Saskatchewan's 11 Ecoregions, each with unique characteristics of geology, soils, climate, plants and animals. The landscapes protected by the RAN program will help to conserve Saskatchewan's native biological diversity, to be used as benchmarks or control areas against which ecological health (in areas outside of the representative area sites) can be measured. Wildfire is also recognized as a function of the natural environment, and it will be essential that wildfire be allowed to continue unimpeded (when possible) within the Protected Zone to perform its role as agent of change in the boreal forest.

The RAN program prescribes a comprehensive assessment process for the selection of potential RAN sites. At the time a site is considered for designation under the program, the full economic potential of the area may not be fully known. Detailed consideration is given to existing land use and activities that are occurring on the land base. Land that has been extensively developed or areas with poor ecological value are not generally considered acceptable RAN sites. Setting aside RAN sites imposes limits on the development potential, as mineral and petroleum resource development is not generally permitted to occur, however, in some areas special exceptions have been made with consideration to total impact on the ecology.

The Misinipiy ILUP is largely composed of the CRU Ecoregion - currently one of the least represented Ecoregions in the province, with only 4.9 per cent of this Ecoregion currently protected. The Lac La Ronge Provincial Park (outside of the Misinipiy planning area) and other representative area ecological reserves along the Saskatchewan-Manitoba border provide most of the protection. The addition of the Pink Lake, Foster Lake and Geikie River proposed representative areas would significantly improve provincial protection of this Ecoregion, as 333,000 hectares are identified for protection in the proposed Pink Lake site, the Foster Lakes include approximately 23,000 ha and a further 9,000 hectares are identified for protection in the Geikie River site. In total, the plan provides for 365,000 hectares to be formally designated for protection within the provincial RAN.

The proposed Pink Lake site is representative of the range of natural ecosystems that occur within the CRU Ecoregion. Six different enduring feature combinations are present within this considerable site, including rock outcrops, fluvioglacial and glacial moraine soils. The proposed Geikie River site is 27,357 hectares in total (of which 9,000 are located within the Misinipiy planning area), and represents five enduring features that occur within the CRU Ecoregion. The majority of the Pink Lake site is found within the Misinipiy plan area; however most of the Geikie River site proposal extends beyond the planning area boundary to the northeast.

Regulations to formally designate these sites will provide some flexibility for certain uses although it is intended that existing uses will be continued, and future uses will be consistent with ILUP objectives for protection.

**Objective:**

1. Designate the proposed representative areas in the planning area for protection and thereby support the objectives of the Province's RAN.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Undertake steps necessary to formally designate the proposed Pink Lake, Foster Lakes and Geikie River sites for protection using the appropriate legislative tool.	<b>Ministry of Environment, TPCS</b>	2012/2013

### 5.2.2 The Sensitive Zone

Traditional uses including hunting, trapping and fishing are permitted. Resource extraction and development is only permitted where it can be demonstrated by the proponent that the proposed development will not adversely impact on or conflict with other management objectives or the protection of identified values. Development in the Sensitive Zone may be subject to public review and comment.

**Primary Objectives:**

- *To protect identified environmental, cultural, social, recreational and human values.*
- *To maintain or enhance natural aquatic and terrestrial populations.*
- *To maintain or enhance water quality.*
- *To permit access for hunting, fishing and other forms of recreation.*
- *To permit resource development where appropriate.*

The Sensitive Zone highlights those areas for which the conservation of one or more resource value (e.g. habitat, recreation) is a priority. Within this zone, resource development may be permitted where it can be demonstrated by the proponent to the satisfaction of the ministry that it does not conflict with other management objectives generally or with the protection of identified values.

In the Sensitive Zone, traditional uses are permitted to occur. Some commercial development, including commercial forestry and mining, may be permitted but must first identify any values of special interest and indicate how those values will be protected. Commercial forestry will be subject to site-specific guidelines being developed by the proponent and may be subject to public review and consultation, in keeping with the provisions of *FRMA*. Negative impacts on special values must be identified and mitigated in an acceptable manner before developments in the Sensitive Zone will be permitted to occur.

Proposals for resource development within the Sensitive Zone may be subject to an environmental impact assessment in keeping with the provisions of the legislation. Environmental impact assessment is a planning process designed to consider the range of impacts of a proposed development and is used to protect human health and well-being, the environment, and to ensure the integrity of the natural system is maintained.

Within the Misinipiy planning area, the delineation of the Sensitive Zone was based on values identified by northern residents and are based largely on local and traditional knowledge. In addition, information on identified historic sites, sensitive environmental values, recreational sites, aesthetically pleasing vistas, fisheries and wildlife values were also used to identify specific values and the Sensitive Zone was delineated to capture as many of these values as possible.

The Churchill River corridor lies within the Sensitive Zone. Given its historical importance to the Province of Saskatchewan and the significant role it continues to play, preparation of a comprehensive plan for this corridor is contemplated. The province will actively seek engagement and cooperation from others, including the LLRIB, in future planning and management affecting the Churchill River. Further planning for the Churchill River is important for many reasons:

- The significant aesthetic values associated with the Churchill River.
- The important human values associated with the river corridor and aligned in particular with the history of the LLRIB.
- Its role as a historic and significant trade route to western Canada.
- The fact that the Churchill River system drains about one quarter of the province and occupies 72,000 square kilometres.
- Eleven of Saskatchewan's fifteen largest lakes are part of the Churchill River system, including Reindeer Lake, Wollaston Lake and Lac La Ronge, all over 400 square km in area.
- Its support of the forests of the Boreal Plain, home to the threatened woodland caribou as well as home to one of the largest inland populations of Bald Eagles in

North America and the largest number of species of breeding songbirds in North America north of Mexico.

The Churchill River corridor would benefit from a systematic approach to management. It is a whole connected ecosystem and a comprehensive planning approach is needed along its length so that future land use decisions are coordinated. Until such time as a comprehensive land use plan is prepared for the Churchill River corridor, the list of permitted uses in the Sensitive Zone will be limited to uses existing as of the date of approval of this plan as well as traditional uses as shown in Appendix 4.

Most recreational and non-commercial activities that have traditionally been enjoyed in the area will be permitted to continue provided they pose little threat to the natural ecosystems and the identified values that are worthy of protection.

The Churchill River figures prominently throughout Saskatchewan's history. It is appropriate, given the importance of the river to the province that the people of Saskatchewan and in particular the LLRIB through whose traditional territory the river flows, should be involved in future management of the Churchill.

Developing a comprehensive land use plan for the Churchill River corridor will ensure the interests of all are considered and that the values associated with the Churchill River will be conserved into the future. For northern residents, there have already been efforts underway to create a "Churchill River Advisory Committee", with representation from Stanley Mission, Grandmother's Bay and the Ministry of Environment. Primarily concerned with aesthetics along the shoreline, the group met several times and were interested in developing a comprehensive plan for that portion of the Churchill River that crosses the band's traditional territory.

A comprehensive land use plan should identify values to be protected, the approach to be taken to manage the area and the opportunities to more actively engage northern residents and members of the LLRIB. The LLRIB has articulated a desire to take a more active role in decisions impacting the resource base within their traditional territory. While details concerning implementation and monitoring will be developed during the land use planning process, it may be appropriate to contemplate the development of a MOA between the province and the LLRIB.

### **Objectives:**

1. Maintain the integrity of the Churchill River (5km) corridor within the Misinipiy planning area's Sensitive Zone.
2. Support the LLRIB to take a more active role in future planning activities that may impact the resource base within the Churchill River Sensitive Zone.



<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Establish a committee with representation from the LLRIB, government ministries, NGOs and special interest groups to participate in developing a comprehensive land use plan for the 5 km Churchill River corridor.	<b>Ministry of Environment</b> , TPCS, LLRIB	2012/2013
Negotiate a Memorandum of Understanding with the LLRIB about future planning or use of the Churchill River Corridor	<b>Ministry of Environment</b> , LLRIB	2012/2013

Within the Misinipiy planning Area, the Sensitive Zone covers approximately 954,000 hectares or 30 per cent of the planning area, including the Churchill River corridor.

### 5.2.3 *The Resource Management Zone*

Traditional uses including hunting, trapping and fishing are permitted. Resource extraction and development (forestry, mining) are supported on the basis of sustainability.

#### **Primary Objectives:**

- *To allow for development of forest resources on lands determined to be capable of supporting sustainable use and harvesting;*
- *To explore for and develop mineral resources and;*
- *To promote resource-based and adventure tourism operations.*

The Resource Management Zone identifies those areas that, on the basis of sustainability, can provide for development of timber, minerals and other resource-based products.

Within the planning area, traditional uses are permitted. Resource development activities are subject to all applicable legislation, regulation, policies and guidelines. Within the Resource Management Zone, investments in resource development will be encouraged and other resource values, though recognized, will be managed in a way that considers the resource development priority of this zone. The Resource Management Zone includes approximately 1,731,000 hectares or 56 per cent of the planning area.

The La Ronge Integrated Land Use Management Plan is a separate, more detailed land use plan for 63,000 ha of Crown resource land located along a corridor near the community of La Ronge (See Map 1). The La Ronge Integrated Land Use Management Plan should be referenced for details on appropriate land use activities within this area as this detail is not duplicated within the plan for the Misinipiy area.

## 6 Integrated Management Actions

The Misinipiy ILUP was developed using a standard zoning approach. The land base is divided into three zones – a Protected Zone, a Sensitive Zone and a Resource Management Zone.

This plan provides a results-based framework for how the ecosystem will be managed. The following section contains objectives and actions that have been defined for the different values in the planning area. While these objectives and actions are defined based on the value identified, they are premised on the same governing principles that form the basis of this plan, namely to:

- plan for the sustainability of all resources;
- adopt an integrated approach to managing the resources of the Misinipiy ILUP; and
- focus on the maintenance and/or enhancement of local quality of life.

For planning area residents and in particular for the members of the LLRIB, there are many factors that have come to influence (and in turn be influenced by) the relationship between the people and the land. There is a long-standing history and an intimate connection of band members to the land and many continue to derive their livelihood from the resource base.

The land use actions that have been developed recognize this important connection and the critical need for environmental integrity. The actions have been written to recognize the interests of government and the local people. The actions have been written to achieve a balance between traditional and non-traditional lifestyles and to recognize the important inter-linkages between environmental health, economic advantage and social impacts.

### 6.1 Biodiversity

Concerns with biodiversity stem from the “Earth Summit”, a United Nations Conference on Environment and Development held in Rio de Janeiro in 1992. One of the salient outcomes of that conference was the signing of the Convention on Biodiversity, with Canada taking a leadership role as the first industrialized nation to sign the international agreement.

Canada’s response to the convention was the development of the Canadian Biodiversity Strategy in 1995, which established long term goals and actions for achieving biodiversity conservation across Canada.

The ministry has a lead role in this area and the province has responded to the national strategy by issuing its Biodiversity Action Plan (*Caring for Natural Environments: A Biodiversity Action Plan for Saskatchewan’s Future*) designed to guide efforts across all sectors over a five-year period from 2004 to 2009.

Simply stated, biodiversity refers to “the variety of life.” As the Biodiversity Action Plan states:

“Biodiversity includes all species of plants, animals and micro-organisms... and the ecosystems and ecological processes of which they are a part.”

Maintaining nature's rich variety of species, with all their genetic diversity and complex interactions with the physical environment is critical for the conservation and sustainable use of functioning ecosystems. Immediate threats to biodiversity include: habitat loss and fragmentation, invasive exotic species, pesticides and pollution, over-harvesting and global warming. The key to maintaining biodiversity lies in adopting a long-term view of resource use. It also depends on all sectors of society considering and recognizing not only social and economic consequences of their actions but also the environmental consequences (BAP, 2004).

The Misinipiy ILUP supports the province's Biodiversity Action Plan in several ways:

- it promotes the adoption of ecosystem-based forest management planning with the forest industry;
- it uses natural disturbance patterns in planning forest management activities to maintain ecosystem processes, functions and structures;
- it supports the continued implementation of the RAN to ensure adequate representation of the province's natural ecosystem;
- it promotes working with First Nation and Métis people as part of renewable resource management decision-making processes; and
- it advocates ongoing monitoring of the planning area to guard against the growing threat of invasive exotic species and environmental degradation.

The planning area consists of many diverse vegetation and animal communities that contribute to biodiversity through functioning boreal ecosystems. Commercial development and other human disturbances could have long-term impacts, reducing biodiversity. Biodiversity may also be influenced by natural disturbance such as wild fires, insects, disease, wind, and extreme climatic conditions such as drought.

Ecosystems are inherently complex and as a result of this complexity and the interrelationships between various ecosystem components, a precautionary approach is necessary. This plan recognizes this complexity and is premised on the principles of ecosystem-based management. As a working document, this plan promotes the ongoing collection of data and enhancements to our information base. As our knowledge increases, the application of this new knowledge will become an integral part of the management approach and actions that emerge in response.

### **Objectives:**

1. Maintain or enhance biodiversity.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Ensure all commercial and other resource development proposals demonstrate how they will maintain or enhance biodiversity.	<b>Ministry of Environment</b>	Ongoing
Ensure environmental impact assessments consider how long-term cumulative adverse effects of human and natural events will be minimized with respect to their impact on biodiversity.	<b>Ministry of Environment</b>	Ongoing
Continue to support the province's commitment to the RAN by protecting areas based on representation of enduring features as well as sensitive sites, historical sites, cultural sites, tourism and other values.	<b>Ministry of Environment, LLRIB</b>	Ongoing

### **6.1.1 Consideration for Species at Risk**

The Misinipiy planning area is rich in biodiversity with abundant plant and animal populations. Species that are not abundant, or considered „at risk“, are protected under provincial and federal legislation that formally recognize and designate species at risk. These are the federal *Species At Risk Act* (SARA), and Saskatchewan's *The Wildlife Act*, and *The Wild Species At Risk Regulations*.

The ministry maintains the Saskatchewan Conservation Data Centre (SCDC), established for the purpose of gathering, interpreting and distributing standardized information on the ecological status of provincial wild species and communities. Information on species occurrences is collected across the province and maintained in the SCDC to track species occurrence and to identify species for official designation. The SCDC lists species as S1 (extremely rare), S2 (rare) or S3 (rare-uncommon). Analysis of the SCDC data within the Misinipiy planning area indicates 91 records (sightings) of 51 species that are considered sensitive but which are not officially designated as species at risk. With ongoing updates to the list, the SCDC website (<http://www.biodiversity.sk.ca/ftp.htm>) is the most current source of information.

The following species are designated under SARA, and are known or suspected to inhabit the planning area. In the absence of intensive surveys for species at risk, this should not be considered a complete list of all species at risk within the planning area. Designations in SARA include species that are listed across Canada, and that may not be present in Saskatchewan ecosystems.

- The Woodland Caribou (Boreal Ecotype) is designated “threatened” under SARA. “Threatened” is defined as “a wildlife species that is likely to become endangered if nothing is done to reverse the factors leading to its extirpation or extinction.”
- Northern Leopard Frog is designated a “special concern species” under SARA. “Special concern species” is defined as “a wildlife species that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats.”
- Short-eared Owl is designated a “special concern species” under SARA.
- Whooping Crane (suspected to be present during migration only) is designated “endangered” under SARA and *The Wild Species at Risk Regulations*. “Endangered” is defined as “a wildlife species that is facing imminent extirpation or extinction.”
- Anatum Peregrine Falcon (suspected to be present during migration only) is designated as “Threatened” under SARA.

Under SARA, when a wildlife species is listed as a species of special concern, a management plan for the species and its habitat is developed that includes measures for species conservation. When a wildlife species is listed as extirpated, endangered or threatened, a strategy for its recovery is prepared. Along with the recovery strategy, designation of the species into one of the categories of “Extirpated”, “Endangered” or “Threatened” will provide the species with legislative protection. Although woodland caribou is not officially designated within provincial legislation, a recovery strategy has been established to guide actions for the species and its habitat.

### Objectives:

1. Maintain or improve habitat and populations of all species at risk.
2. Identify and document sensitive species occurring within the planning area.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Liaise with other government ministries (both federal and provincial), NGOs and ecologists to stay abreast of new or developing issues affecting species at risk.	<b>Ministry of Environment</b> , DFO	2012/2013
Ensure that management plans and recovery actions for species at risk guide land use management.	<b>Ministry of Environment</b>	Ongoing



<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Apply species at risk conservation measures to all forms of land use activity.	<b>Ministry of Environment</b>	2013/2014
Continue to support development of species at risk initiatives, e.g., “ <i>Recovery Strategy for Boreal Woodland Caribou in Saskatchewan</i> ”.	<b>Ministry of Environment</b>	Ongoing

## 6.2 Habitats

### 6.2.1 Aquatic Habitats

The Misinipiy planning area supports a diversity of aquatic habitats and species. Successful aquatic and wetlands habitat conservation relies on promoting abundant and representative habitats, healthy sustainable populations, and sustainable allocations. Habitat value is measured by the ability of land and water to provide necessary food and shelter for aquatic wildlife, with the planning area supporting a wide variety of essential habitats, important to maintaining the current proportion and distribution of aquatic habitats.

Healthy habitats are necessary for species survival at sustainable population levels. To manage aquatic ecosystems effectively, and to sustain healthy and diverse populations of aquatic and riparian flora and fauna, it is essential to understand and to be able to describe the features and characteristics of aquatic habitats accurately and precisely. The province is working on development of a system for classifying aquatic habitats. A standard Canadian wetland classification system has been developed by the National Wetlands Working Group.

Wildfire and other natural agents of change that occur in the forest can and do profoundly influence aquatic habitat, while human-caused changes such as timber harvesting, mining, hydro-electric development, commercial, residential and recreational development, road access, construction and maintenance, and other associated human activity can also dramatically impact aquatic habitat. Some species are not well adapted to these human-induced agents of change.

Landscape level change resulting from timber harvesting, or a combination of several kinds of activity can result in declines in fish population levels and species diversity, because each individual species require specific aquatic habitat types. In the short term at least, populations of some species may flourish at levels beyond those anticipated. Other species, however, struggle to recover and eventually do so if the change is not permanent. Generally, human induced impacts can be reduced or avoided with appropriate planning and by adhering to provincial standards and guidelines.

## Objectives:

1. Maintain aquatic habitat to support sustainable fisheries populations.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Ensure that any activity influencing aquatic habitat values is undertaken in strict accordance with provincial and federal standards and guidelines.	<b>Ministry of Environment</b> , DFO	Ongoing
Identify critical aquatic habitat and areas of specific concern.	<b>Ministry of Environment</b> , DFO, LLRIB, DUC	Ongoing

### 6.2.2 *Terrestrial Habitats*

Wildlife populations respond to changes to terrestrial habitat such as wildfire - some wildlife species migrate away, some move in, and others remain. All are adapted to these changes as part of the fire-dependent ecosystem. For some species such as woodland caribou and wolverine, the planning area is considered small in terms of landscape requirements at a population scale. This means that species with large landscape scale habitat requirements can be affected by activities occurring within and adjacent to the planning area, and the ministry needs to consider the effects of natural and human-caused activities within the planning area on those species.

Woodland caribou make extensive year-round use of semi-open to open bogs where forage is abundant. Caribou habitats are generally bogs, fens and open canopy jack pine sites on thin infertile soils. Any stands of commercial value on woodland caribou range tend to be lowland black spruce sites and upland jack pine sites. Generally speaking moose and white-tailed deer prefer the more productive forest soils are along the portion of the southern boreal forest.

Timber harvesting, mining, hydroelectric development, commercial, residential and recreational development, road access, construction and maintenance, and other associated human activity are examples of disturbance that can dramatically impact wildlife habitat. These disturbances, or changes to wildlife habitat, can cause changes in home ranges, movement, reproductive success, escape response, and physiological state. Not all species and ecosystems are equally affected by roads but overall, the presence of roads is highly correlated with changes in species composition, population size, and hydrologic and geomorphic processes that can also shape aquatic and riparian systems.

The cumulative effects of human activities including timber harvesting, increased access, and resource extraction industries, can have significant impacts on wildlife populations and

species diversity. Some species will benefit from the change, especially those adapted to earlier successional habitats, and fragmented habitats, while others will be negatively impacted, particularly those with large spatial requirements, late successional habitat needs, low reproductive potential, or specialized niches. Some wildlife thrive with disturbance, others are intolerant and sensitive. The impact of the landscape disturbance on wildlife depends on the permanency, magnitude, and type of disturbance, as well as the ecological and the biological ability for wildlife species to cope with change. Generally, these human-induced impacts can be reduced or avoided by appropriate planning and management to conserve wildlife habitat values.

### Objectives:

1. Maintain habitat to support sustainable wildlife populations.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Ensure that any activity near known critical wildlife habitat values is undertaken in strict accordance with provincial standards and guidelines.	<b>Ministry of Environment</b>	Ongoing
Identify critical wildlife habitat and areas of specific concern to habitat ( <i>e.g.</i> , Woodland Caribou calving areas, raptor nests). Note: recording local knowledge from all sources is fundamental to the success of this action.	<b>Ministry of Environment</b> , LLRIB	2012/2013
Review present policies and guidelines where necessary, using all available knowledge to ensure adequate direction is provided to maintain healthy wildlife habitats into the future.	<b>Ministry of Environment</b>	2012/2013

## 6.3 Fisheries

### 6.3.1 Fish Populations

Communities within the LLRIB are already promoting conservation and adopting a community-based resource management and conservation ethic. In Stanley Mission, concerns with declining fish population levels resulted in band members voluntarily agreeing to and upholding a five-year ban on net fishing in fish spawning areas. The results thus far have proven positive.

Healthy fish populations enrich the ecosystem by contributing to its biological and genetic diversity. They are also essential to providing for human needs including: sustenance, economic opportunities, recreation and appreciation. Since most of the Misinipiy planning area is undeveloped, current population levels of fish can be attributed mainly to the natural environment. Population-limiting causes such as: habitat modification from forest fires, and human influence from exploration/mining, limited timber harvesting, access, fishing, and wild rice harvesting also impact current population numbers.

Some fish populations are cyclical, influenced by complex relationships relating to disease, food supply and predator/prey interactions. Understanding these factors will improve with more research and will help to maintain current and future aquatic populations within natural ranges.

#### Objectives:

1. Maintain the long-term health of fisheries populations in the planning area by promoting healthy aquatic ecosystems and in-stream flow requirements for fish.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Apply findings contained in species management plans, improve knowledge of fisheries population dynamics and identify factors affecting habitats and populations.	<b>Ministry of Environment</b>	Ongoing
Enforce protective measures to ensure industrial, commercial development and recreational activities do not negatively impact fisheries populations.	<b>Ministry of Environment</b>	Ongoing
Develop partnerships and encourage information gathering and research related to aquatic habitat and fisheries populations.	<b>Ministry of Environment, LLRIB</b>	Ongoing

### 6.3.2 *Fish Allocation*

Fish may be made available for allocation in response to the needs of sport fishing and commercial fishing, after species conservation and sustenance needs have been met. Based on present criteria used to determine allocation levels, the fish resources of the Misinipiy planning area are considered fully allocated. Over-harvesting of certain aquatic species has largely been addressed through regulations that prevent people from taking too many fish for sport or personal consumption.

The ministry is committed to ensuring current allocations are fair and that fish populations remain sustainable. Although demand for greater access to commercial outfitting opportunities has increased, the ministry recognises that current traditional access to fisheries resources must be maintained, while also ensuring that resource conservation protects present and future populations.

To ensure sustainable long-term allocation, fish populations are currently prioritized in order of:

1. conservation of the resource;
2. obligation to fulfill treaty and Aboriginal rights;
3. non-commercial (recreational) use;
4. commercial net fishing and outfitting.

This list represents the existing order of priorities. It should be noted that northern community members would prefer to see the following order of priorities established:

1. conservation of the resource;
2. First Nations' subsistence use;
3. non-commercial use by provincial residents;
4. non-commercial use by non-residents; and
5. commercial uses.

While the ministry recognizes these changes have been requested, the existing priority order will remain in place at this time. The ministry is currently engaged in a comprehensive review of fisheries management in Saskatchewan that will, through a collaborative, inclusive process, assess the current priorities with consideration to legal, public policy, and resource management requirements.

Groups with different values and priorities often find themselves competing for the same resources, resulting in conflict and at times over utilization of fish populations. The ministry recognizes the importance of subsistence in relation to treaty obligations, as long as sustainable healthy populations are maintained.



**Objectives:**

1. Maintain sustainable fisheries allocations.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Incorporate local and traditional knowledge into fisheries management actions, setting species and size limits.	<b>Ministry of Environment</b> , LLRIB	Ongoing
Enhance enforcement efforts to address those who ignore existing regulations and are involved in illegal harvesting activity.	<b>Ministry of Environment</b>	Ongoing
Continue to review criteria to set sustainable harvest limits and modify as required.	<b>Ministry of Environment</b>	Ongoing

**6.4 Wildlife****6.4.1 Wildlife Populations**

Healthy wildlife populations enrich the ecosystem by contributing to its biological and genetic diversity. They are also essential to providing for human needs including: sustenance, economic opportunities, recreation and appreciation. Since most of the Misinipiy planning area is relatively undeveloped, fluctuations in population levels of wildlife can be attributed mainly to natural environmental causes such as habitat modification from forest fires and some human influence from exploration/mining, limited timber harvesting, access development, trapping and hunting.

The current recovery strategy for boreal woodland caribou (*Rangifer tarandus caribou*) in Saskatchewan identifies a large portion of the Misinipiy planning area as critical woodland caribou habitat. Federal law supersedes provincial laws for Species At Risk Act listed species, of which the woodland caribou – boreal ecotype is listed as threatened. The Misinipiy ILUP actions reflect the ministry's compliance with recommendations of the provincial and national caribou recovery plans. More information pertaining to species at risk appears in the section entitled "Consideration for Species at Risk."

**Objectives:**

1. Maintain the long-term health of wildlife populations in the planning area.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Apply findings contained in species management plans, improve knowledge of wildlife population dynamics, and identify the factors affecting habitats and populations.	<b>Ministry of Environment</b>	Ongoing
Enforce protective measures to ensure industrial, commercial development and recreational activities do not negatively impact wildlife populations.	<b>Ministry of Environment</b>	Ongoing
Develop partnerships and encourage information gathering and research related to migratory bird and wildlife populations.	<b>Ministry of Environment, DUC, LLRIB</b>	Ongoing

#### **6.4.2 Wildlife Allocation**

Based on present criteria used to determine allocation levels, over-harvesting of game species has largely been addressed through regulations and penalties that deter people from taking too many animals for sport or personal consumption. Wildlife populations must be healthy to be capable of withstanding reasonable harvest pressure. Allocations of wildlife for sport hunting whether for resident, non-resident or outfitting use, will be granted with consideration given to ensuring conservation and treaty obligations have also been addressed.

The ministry is committed to ensuring current wildlife allocations are fair and populations remain sustainable. Although demand for greater access to commercial outfitting opportunities has increased, the ministry recognizes that current traditional access to wildlife resources must be maintained, while also ensuring that resource conservation protects present and future wildlife populations.

To ensure that sustainable long-term allocations are maintained, wildlife resource allocation is based on the following order of priority:

1. conservation of the resource;
2. obligation to fulfill treaty and aboriginal rights;
3. non-commercial (recreational) use;
4. commercial outfitting.

This list represents the existing order of priorities. It should be noted that northern community members would prefer to see the following order of priorities, which is similar to

the provincial priority listing, but with further refinement of the priority for recreational access by provincial residents over non-residents:

1. conservation of the resource;
2. First Nations' subsistence use;
3. non-commercial use by provincial residents;
4. non-commercial use by non-residents; and
5. commercial uses.

While the ministry recognizes that these changes have been requested, the existing priority order will remain in place at this time.

Groups with different values and priorities often find themselves competing for the same resources, resulting in conflict and/or over-utilization of wildlife. The ministry recognizes the importance of all of the above priorities.

### Objectives:

1. Maintain sustainable wildlife allocations.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Incorporate local and traditional knowledge into wildlife management actions, hunting seasons, and species limits. Determine the requirements of aboriginal sustenance.	<b>Ministry of Environment</b> , LLRIB	Ongoing
Enhance enforcement efforts to address those who ignore existing regulations and are involved in illegal poaching activity.	<b>Ministry of Environment</b>	Ongoing
Review the criteria to set sustainable harvest limits, considering local and traditional knowledge of wildlife populations, and modify as required.	<b>Ministry of Environment</b> , LLRIB	Ongoing

## 6.5 Exotic and Introduced Species

There is a need to understand the potential impacts of introduced species. At the time of writing, there were no issues identified within the planning area attributable to the introduction of exotic species. However, it is important to take a long term and strategic approach to guard against the negative impacts of introduced species, such as Canadian thistle. It is recommended a guideline be developed to focus on the importance of ongoing monitoring to ensure exotic and introduced species do not become a concern.

### Objective:

1. Guard against the negative impacts of exotic and introduced species.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Monitor the planning area for exotics and introduced species.	<b>Ministry of Environment</b>	Ongoing

## 6.6 Sustainable Forestry

Forest sustainability refers to maintaining the natural diversity of the land base in perpetuity. A sustainable forest is one that is healthy, providing valuable habitat for flora and fauna, while allowing an acceptable level of harvesting opportunity for timber and non-timber forest products. Sustainability includes prioritizing the successful regeneration of healthy forests after timber harvesting or natural disturbances.

To address concerns of forest sustainability, the ministry has been developing clear standards that will guide forest management and sustainability according to current and accepted principles. When implemented, the provincial standards will provide many benefits to forest industry, government and the people of Saskatchewan. Industry will have a set of standards that are results-based, fair, measurable, and yet flexible enough to address regional variations and allow for business innovation. Government will be better able to fulfill its mandate of maintaining the sustainability of forest resources for present and future generation, identify provincial concerns with reforestation knowledge gaps, and propose appropriate actions. The public will have data and a greater level of comfort knowing that their forests are being managed sustainably.

### Objectives:

1. To maintain the growing potential and productivity of forest lands being managed for fibre production.
2. To maintain healthy functioning forest ecosystems for future generations.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeframe</b>
Regenerate harvested areas to ensure they remain healthy functioning ecosystems.	<b>Ministry of Environment</b> , FMA holders	Ongoing
Ensure that planning for new forestry developments considers all values including the sustainability of the Boreal Shield ecosystem.	<b>Ministry of Environment</b>	Ongoing
Promote principles of ecosystem-based management within all levels of planning and resource development.	<b>Ministry of Environment</b>	Ongoing

### **6.6.1 Timber Harvesting**

The potential for timber harvesting in the Misinipiy ILUP depends on several factors. One of those factors involves the current global forest industry outlook, which suggests there is unlikely to be any significant harvesting of forest resources north of the Churchill River any time soon. Planning is another factor. In keeping with the principles of ecosystem-based management, a forest management plan must demonstrate sustainability of not only timber but of other forest values. A forest management plan (FMP) will include an assessment to sustainability for the area under management, and include forest estate modeling to determine the sustainable rate of forest harvest for a period of approximately 200 years. Modeling can then be adjusted to reflect non-timber based objectives of the FMP. Once the forest estate model prepares a selected management strategy, the FMP is finalized for a term of up to 20 years.

At this time, the majority of the planning area is not available for commercial timber harvesting. A detailed forest inventory has not yet been developed, as a forest management plan has not been completed for the area. The ministry cannot speculate on the possible timber harvesting levels that may be permitted in the presently unallocated forest within the planning area. The costs and revenues associated with timber harvesting are not considered in the determination of timber harvesting levels; economic viability is the responsibility of the FMA holder.

Timber harvesting opportunity is, however, influenced by the potential for access into the forest. Access issues discussed in this plan illustrate that roads built to access merchantable timber (or for any other purpose) are also important for hunting and angling opportunities, and may lead to a greater impact on fish and wildlife populations. Although financial costs of access construction can be very high, the benefits available for not only timber harvesting but for many other forest users must be weighed against the potential impacts to other environmental values, such as fish and wildlife or tourism. The allowable harvest of timber



may also be reduced due to environmental protection considerations, removing area and volume from allowable harvest calculations for forest stands protected by provincial legislation, regulations, standards, policies or guidelines.

Boreal species have evolved to regenerate with natural disturbances, specifically wildfire. Knowledge of natural disturbance effects on the environment provides forest managers with the ability to emulate these natural processes with improved timber harvesting methods. Carried out correctly, timber harvesting can support both environmental and economic objectives. A key contributor to the local and provincial economy, forestry can also provide inherent benefits to the forest ecosystem and society when undertaken with other forest values in mind.

When timber harvest activity is being considered, the interests of other uses and users must be taken into account. Consulting with the public and affected stakeholders on the land base is important, particularly to those who have adjacent personal or business interests. The ministry continues to encourage all proponents to actively seek input, advice and guidance from users of the land base as an essential first step in considering any harvest activity.

In the Misinipiy ILUP, tourism is recognized as a significant contributor to the economy. Visual aesthetics are of particular concern to local residents as well as the tourism industry that rely on intact vistas as a means of promoting the area. Visual aesthetics play a critical role for those who are in the business of selling a wilderness. Vistas are also important for outdoor recreation enthusiasts who place high value on maintaining the visual integrity of an area. The ministry recognizes the visual impact of timber harvesting activities on the land base is an important issue that must be considered when identifying potential harvest areas.

### Objectives:

1. Encourage timber harvesting that recognizes and reflects the principles of ecosystem-based management.
2. Follow provincial standards and guidelines for forest operations.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Ensure principles of ecosystem-based management are followed in order to consider all ecosystem values and values of society, in addition to economic factors when calculating the allowable harvest of timber for a forest management plan in the Misinipiy ILUP.	<b>Ministry of Environment</b>	Ongoing
Incorporate traditional knowledge when developing timber harvesting standards and guidelines.	<b>Ministry of Environment</b>	Ongoing

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Consult with and engage the general public and interested stakeholders (particularly those adjacent to any proposed harvest area) in development of forest management plans to resolve important issues, <i>e.g.</i> visual quality objectives.	<b>Ministry of Environment</b> , LLRIB	Ongoing
Promote timber harvest in areas where there is a high risk of intense fires, to reduce the loss of organic material in the forest.	<b>Ministry of Environment</b>	Ongoing
Encourage traditional models of regeneration and the application of traditional ecological knowledge with respect to regeneration.	<b>Ministry of Environment</b> , LLRIB	Ongoing

### 6.6.2 Reforestation

One of the primary aims of sustainable forest management is to re-establish appropriate tree species after the harvest of timber, and achieve ecosystem characteristics that existed in the pre-harvest condition. Failing this, undesirable forest conditions may result such as a poorly stocked forest that must compete with undesirable shrub or weed species that also support poor environmental conditions. Reforestation is accomplished by applying seed, planting seedlings or allowing natural disturbance processes such as wildfire to occur. When successful, these regeneration activities enhance the long-term sustainability of forests, forest ecosystem health and favourable environmental conditions for other species, and the economic viability of future forestry operations. Reforestation is usually the most expensive component of a forestry operation, since the investment does not produce an economic return until the trees are mature and considered merchantable; in Saskatchewan, tree maturity is achieved in upwards of 80 to 100 years, depending on species, growing conditions, and impact from other natural conditions.

The analysis of forest sustainability is carried out as directed by Section 27 of *FRMA*, which requires that a licensee carry out detailed activities according to provincial regulations, requirements from the Forest Operations Manual, Provincial Regeneration Standards, guidelines, and additional terms of the forest license, that ensure specific requirements for reforestation and sustainability will be met. Regeneration standards are a component of the silvicultural prescription, a detailed operational plan that describes appropriate species selection and stocking levels, stand establishment requirements (including timelines), and requirements for specific free-growing assessments. Also included in the silvicultural prescription is an identification of desired stand goals throughout the rotation, identification of ecological site attributes, knowledge and use of inherent silvicultural characteristics of all

species suited to the site, and matching these elements to produce a prescription that meets management objectives.

**Objectives:**

1. To ensure that reforestation occurs after timber harvesting.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Apply the provincial regeneration standards to all areas where timber is harvested.	<b>Ministry of Environment</b>	Ongoing

### **6.6.3 Insects & Disease**

Increased levels of insect and disease infestation can be attributed to the removal of wildfire as an ecological agent of change. Some insect infestation control has taken place around Besnard Lake, however most of the planning area does not receive insect control measures because frequent fires help to keep insect populations at natural levels. The ministry justifies the expense of control measures based on the value of the forest for timber harvesting and the desire to maintain healthy ecosystems.

**Objectives:**

1. Guard against the negative impacts of insects and disease.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Monitor the effects of insects and disease on ecological system health in the planning area.	<b>Ministry of Environment</b>	Ongoing
Take measures to control infestation where timber and societal values justify treatment.	<b>Ministry of Environment</b>	Ongoing

### **6.6.4 Non-Timber Forest Values**

Non-timber forest products include almost anything that might be collected from the forest other than trees including berries, moss, mushrooms, medicinal plants, peat moss, tree sap and bark. Many species have medicinal value. Harvesting these products provides economic benefits and food for northern residents and other visitors.

Both traditional and commercial harvesters want non-timber forest product areas protected from negative impacts however most locations are rarely documented or shared, putting these areas at risk because they may be impacted by commercial development activities. Poor harvest techniques of non-forest products can also affect the potential for future crops by damaging habitat and regeneration opportunity.

### Objectives:

1. Promote environmental protection while providing opportunities for harvest of non-timber forest products (NTFP).

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Conduct a study of NTFP with high use, comparing economic value of NTFP to other developments ( <i>i.e.</i> , forest production).	<b>Ministry of Environment</b> , Ministry of Agriculture, LLRIB	2012/2013
Conduct an inventory of sites that are important to the production of NTFP.	<b>Ministry of Environment</b> , Ministry of Agriculture, LLRIB	2013/2014

## 6.7 Human Heritage

### 6.7.1 Heritage Property Issues

As previously explained, the boundaries of the Misinipiy ILUP area are aligned with the traditional territory of the LLRIB, which encompass the majority of the planning area. Heritage properties are physical remains and evidence of historical activity, and include campsites, trading posts, abandoned trappers' cabins, historic mining towns, and archaeological sites containing artifacts such as tools and other objects made of stone, bone, clay, wood or metal. Pre-contact period campsites, hunting and gathering sites, ceremonial sites, burial sites, ancient rock paintings or "pictographs" and old fur trading posts are examples of specific heritage sites that may be protected under Section 63 and 64 of *The Heritage Property Act*.

The provincial government has an important role in ensuring that irreplaceable and non-renewable heritage properties are protected. Through careful and sensitive resource management, heritage resources will continue to provide educational, social, and economic benefits to present and future generations. The Ministry of Tourism, Parks, Culture and Sport is responsible for managing provincial heritage resources and for administering various protection provisions under *The Heritage Property Act*. These include heritage resource impact assessment (HRIA) regulations, easements and covenants, the issuing of permits to

authorize surveys, collections, excavations or other activities and provincial and municipal heritage property designation.

Heritage properties can be highly vulnerable to disturbance or destruction from land development. There is concern that proposed developments will not be properly reviewed and that heritage properties will be damaged. The increased visitation to known heritage properties can result in a need for greater maintenance, *e.g.*, cutting grass, fixing docks, and removing garbage, to ensure public safety and to protect heritage properties. A commitment to protect heritage sites must be recognized prior to approval of development projects.

Maintaining the privacy of these heritage properties is very important to aboriginal people to ensure protection from disturbance and to retain their cultural and historical identity. The Ministry of Environment is responsible for the administration of development applications on Crown resource lands and uses the Ministry of Tourism, Parks, Culture and Sport to assist in screening for conflicts with heritage sites. In the future, government hopes to continue to work cooperatively with the LLRIB to include the spatial and physical location information of important traditionally occupied territory held by the band in the review of development proposals. With emphasis on protection and stewardship, increased knowledge of heritage properties will be necessary.

The Ministry of Tourism, Parks, Culture and Sport has documented several hundred heritage properties throughout the area. As well, the LLRIB's inventory of traditional knowledge contains many additional sites.

### Objectives:

1. Encourage the protection of heritage properties in the planning area.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Establish an agreement to share inventories of known archaeological sites, traditional use locations and traditional travel routes, with respect to the need to maintain confidentiality about the specific location of key sites.	<b>TPCS</b> , LLRIB, Ministry of Environment	2012/2013
Facilitate sensitive development of certain heritage properties for public education and enjoyment.	<b>TPCS</b> , LLRIB, Ministry of Environment	2013/2014
Ensure protection of heritage properties by discouraging destructive human activities, structure development and/or improvements.	<b>TPCS</b> , LLRIB, Ministry of Environment	Ongoing



Actions	Responsible Agencies (Lead Agency Bolded)	Initiation Timeline
Improve public awareness of important heritage properties.	<b>TPCS</b> , LLRIB, Ministry of Environment	Ongoing
Prior to commercial/industrial development, screen proposals and if warranted, order a heritage resource impact assessment to be carried out by the developer.	<b>TPCS</b> , Ministry of Environment	Ongoing

### 6.7.2 Access Issues

Given the location of the planning area and the associated environmental concerns in relation to human impact on forest resources, the issue of access development must be considered when making critical resource management decisions. Although the majority of the planning area is relatively inaccessible by road, with limited access to the majority of the land base north of the Churchill River, there are approximately 350 km of maintained access roads in the planning area, most of it gravel with several old roads and trails accessible only by snowmobile and all-terrain vehicles (ATVs). Major road access includes portions of provincial highways with Highway #102 being the only highway providing access across the Churchill River within the planning area, servicing northern communities and developments. This limited access currently restricts the impact from human uses including both recreational opportunities and resource extraction.

In some instances, roads, trails and portages are in good condition due to regular maintenance. In other cases, maintenance may not be significant or access roads and trails may have been abandoned showing signs of vegetative overgrowth. While there is no need at present for new primary access roads in the planning area, it is important to recognize that the existing road network must be maintained to allow for year-round access. As the demand for additional access increases, decisions on access development will need to consider the impact this will have on area residents, resource use, and the environment overall.

Roads of all kinds cause six general effects: wildlife mortality from road construction, wildlife mortality from collision with vehicles, alteration of the physical environment, alteration of the chemical environment from road salts etc., spread of exotic species and increased use of the area by humans. Roads and trails become permanent features on the landscape and may have several impacts on wildlife including:

- establish movement barriers for some species (*e.g.*, woodland caribou);
- corridors for enhanced movement and access by predators (*e.g.*, wolves and humans), resulting in increased predation risk on all ungulate species;

- stress wildlife (especially in winter) by displacing them from habitat they may normally occupy, into areas that may be suboptimal habitat (*e.g.*, reduced forage quality, increased predation risk, reduced cover for security or thermal cover).

Winter is a season where some species are particularly vulnerable because they are in an energetically/nutritionally stressful period. Activities that displace them into poorer habitat or that add energetic stress can have a significant negative impact on a local population, depending on the magnitude and permanency of the disturbance.

When development proposals are considered, access issues must be considered and may result in access restrictions in order to address other identified values. The ministry is currently working on a strategy for access management in forested and protected areas. An important component in developing an access management policy is ensuring that the public and affected stakeholders have an opportunity to participate in the decision making process. Adequate consultation is essential to increase public awareness of what is being proposed and for finding solutions that meet the needs of all parties.

The ministry reviews new access route proposals before approval, applying provincial policies, standards and guidelines as appropriate, and requiring that impacts on other users be addressed. The ministry encourages multi-use proposals that share the costs of access construction and maintenance and which also reduces new road development which increases land base fragmentation. For example, access routes that already exist and are well designed should be used rather than creating new access routes.

The decision to maintain or close roads is often difficult to resolve because of the many diverse public and private interests. A critical factor in the argument for continual maintenance is that the cost associated with ongoing upkeep must be justified.

All numbered highways within the planning area are maintained by the Ministry of Highways and Infrastructure who may also require companies using the roads to contribute to maintenance responsibilities. Poorly maintained access routes can cause environmental damage such as water siltation and should either be maintained or closed.

### **Objectives:**

1. Support a system of access routes in the planning area that addresses user needs and that support the principles of ecosystem based management.
2. Plan access to minimize development and the human footprint and encourage multi-use of linear corridors whenever possible.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Complete an inventory of access routes within the planning area. This inventory should identify main thoroughfare and destination trails, and closed loop trapping trails.	<b>Ministry of Environment, MHI</b>	2013/2014
Develop a system to review and approve proposals for new access development that will consider all resource users and resource values that may be impacted.	<b>Ministry of Environment, MHI</b>	2013/2014
Develop an access management policy/plan that considers needs for present access, maintenance and possible impacts to affected resource users and the environment.	<b>Ministry of Environment</b>	2013/2014
Ensure provincial guidelines for road and stream crossings are enforced to protect water quality.	<b>Ministry of Environment, MHI, DFO</b>	Ongoing
Ensure temporary access routes are decommissioned and regenerated as quickly as possible, as per provincial standards and guidelines.	<b>Ministry of Environment</b>	Ongoing

### ***6.7.3 Access for Traditional Travel***

An extensive network of trails and portages provide access between water bodies throughout the planning area. Although these access routes provide important access for recreation, most trails and portages were initially established by First Nations and Métis people to access their traditional land. For many First Nations and Métis people, these traditional travel routes are their only source of access to traplines or other traditional uses. Most traditional travel route information is considered confidential with the inventory held by the LLRIB. This can pose problems for the ministry and other agencies that assess commercial development proposals. If travel routes are not known, specific values along such routes are difficult if not impossible to preserve.

Traditional travel routes and other seasonal trails within the planning area may access sensitive wildlife habitat or other sensitive values such as spiritual, heritage, and cultural locations. Traplines and traditional hunting areas may also be affected, with traditional travel routes providing opportunities to access traplines, recreational or commercial dwellings,

potentially exposing them to damage. Trappers also use these main trails in addition to their own closed-loop trap line trails. However some trappers have experienced problems with main trail users accidentally using trapping trails, and feel that access to these trails should be restricted because the increased traffic affects wildlife activity. The ministry currently provides signs for trappers to identify their trapping trails in an effort to avoid these conflicts.

Traditional resource users have used several actions to limit access across these lands, and to reduce the disturbance to animals on their traplines and hunting areas. These actions include: infrequent use of winter trails, keeping trails narrow, inclusion of natural barriers such as lakes, rivers, creeks, etc., and an established protocol for travelling through someone's hunting and trapping territory that is based on mutual respect, restraint from encroaching on others territories, regular communication, cooperation and sharing.

### Objectives:

1. Support and encourage the identification and protection of traditional travel routes within the planning area.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency bolded)</b>	<b>Initiation Timeline</b>
Promote consultation between all users of traditional travel routes to accommodate their interests wherever possible.	<b>Ministry of Environment</b> , LLRIB	Ongoing
Encourage the LLRIB to continue their inventory of traditional travel routes.	<b>Ministry of Environment</b> , LLRIB	Ongoing
Encourage closed loop trapping trails to be appropriately signed.	<b>Ministry of Environment</b> , LLRIB	Ongoing
Recognize traditional travel routes and other seasonal trails through the planning area are sensitive information and should be kept confidential to First Nations and Métis residents of the area and government staff, where appropriate.	<b>Ministry of Environment</b> , LLRIB	Ongoing

#### **6.7.4 Access for Snowmobiles and All Terrain Vehicles**

In the Misinipiy planning area, like many other areas of Canada, snowmobiles and all-terrain vehicles (ATVs) are used to travel off-road into remote areas for trapping, hunting, fishing, recreation and commercial activities including mineral exploration. As technology has improved and snowmobiles and ATVs have become more comfortable, not only is the planning area seeing an increased use in these types of vehicles, but areas are being accessed

that were once considered too distant or remote to reach. Access to such new areas has at times resulted in conflicts between those who support motorized recreation and those who are more in favour of non-motorized recreation. Recognizing the diversity of perspectives is important as is providing an opportunity to support a variety of uses and users.

There are many examples of stewardship efforts within the planning area that involve the active participation of motorized recreation enthusiasts. Organized recreational snowmobilers have established winter trails that they actively maintain although at the present time, there are no designated snowmobile trails in the planning area. Local riders utilize existing trails and do some clean up and maintenance for the benefit of all users.

Trappers also use these main trails in addition to their own closed-loop trails to maintain trap lines. However, some trappers have experienced problems with main trail users accidentally using trapping trails. The ministry currently provides signs for trappers to identify their trapping trails in an effort to prevent inadvertent impact to traplines.

### Objectives:

1. Encourage motorized recreation in the planning area on identified trails, in keeping with plan objectives and principles of ecosystem-based management.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timelines</b>
Support educational efforts that focus on responsible motorized recreation. In particular, support efforts that encourage all riders to ride responsibly, stay on trails, respect wildlife and other values and promote new trails through an open consultation process.	<b>Ministry of Environment</b> , trappers	Ongoing
Ensure that issues pertaining to snowmobile and ATVs are addressed in access management plans developed in the planning area.	<b>Ministry of Environment</b>	Ongoing

## 6.8 Mineral Resources

Mining is the principal industry in the north. Globally, Saskatchewan is the world's largest producer of both potash and uranium. Other mineral commodities that are produced in the province include coal, gold, base metals (e.g., copper, zinc) and a variety of industrial minerals such as salt, sodium sulphate and clay. There is also significant potential for the future production of other commodities, notably diamonds and rare elements. Of particular note is the La Ronge Domain, a volcanic belt that contains numerous gold and base metal deposits, and the Wollaston Domain, a sedimentary belt containing base metal deposits. The Key Lake uranium mine is located at the far northwest corner of the plan area. South of La



Ronge at the southern end of the planning area, younger, flat lying, sedimentary rocks overlie the Precambrian rocks. These contain deposits of coal and a variety of industrial minerals such as silica sand and kaolin clay.

Due to this mineral endowment, many areas remain under active exploration and development. While the known values and locations of metals, minerals, and sand and gravel in the planning area are incomplete, mineral dispositions indicate the areas of current interest, particularly for gold and uranium. Mining activity is scattered throughout the planning area and includes sand and gravel resources that are used for road and construction-related materials for projects throughout the planning area, as well as exploration and evaluation of undeveloped base and precious metal deposits.

The mining industry is comprised of three distinct activities:

- exploration to identify and assess new mineral deposits;
- development to extract those deposits; and
- decommissioning and reclamation.

Mineral exploration and development are temporary uses of the land. Initial mineral exploration focuses on large geographic areas where the activities have minimal environmental impact. Successive stages of exploration focus on more specific areas of land where some impact on the land can result. These work stages are regulated and rehabilitation of work sites is required. Where a mineral deposit is discovered, it must be thoroughly evaluated through a feasibility study that meets legislated standards. When the mineral deposit is determined to be economic for commercial extraction, an extensive environmental assessment, permitting and approvals process is necessary before mine development may occur. This includes an approved rehabilitation plan that is supported by a financial assurance posted by the company.

### ***6.8.1 Exploration for New Mineral Deposits***

Saskatchewan's mineral exploration expenditures are significant, totalling \$150 million in 2005 with \$93 million spent in the north (Saskatchewan Industry and Resources 2005-06 Annual Report). From a mining perspective, the town of La Ronge is a major service centre providing goods, services and personnel to northern mines and providing support and services to the exploration industry in the region. From a government perspective, FNMR also promotes economic development and encourages job creation in the north.

Exploration and mining provide an important source of employment for all communities of the planning area. The Ministry of Energy and Resources estimates that for every \$1 million in exploration activity, 3 jobs are created in northern Saskatchewan. In 2007, expenditures on hard rock mineral exploration levels are estimated at \$277 million. An estimated \$1 billion in equity market investments in Saskatchewan mineral exploration companies will translate into continued high level activity in the province for at least the next couple of years.

Mining proponents agree that environmental standards must be met. They also express concern that land use restrictions will reduce economic exploration and mine development opportunities. Legislation regulating mineral exploration and development is enforced by the Ministries of Environment, Energy and Resources and other agencies as appropriate. The Ministry of Environment is responsible for administration of surface activities, while the Ministry of Energy and Resources administers subsurface activities for the province. Other provincial and federal agencies also have a role.

### Objectives:

1. Encourage environmentally responsible mineral resource exploration and development.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Examine the permitting process to facilitate mineral exploration opportunities.	<b>MER, Ministry of Environment</b>	Ongoing
Engage mineral exploration, mining companies, affected communities and residents when making land use decisions.	<b>Ministry of Environment, MER, LLRIB</b>	Ongoing
Continue to support, as appropriate, development of training and employment-related partnerships for residents within the planning area.	<b>Ministry of Environment, MER, FNMR, LLRIB</b>	Ongoing
Ensure exploration activity complies with current legislation, regulations, policy and guidelines.	<b>MER, Ministry of Environment, DFO</b>	Ongoing

### 6.8.2 Decommissioning & Reclamation

Decommissioning and reclamation constitute the final stage in the establishment of mine sites. Decommissioning and reclamation follows resource extraction and is concerned with site restoration and the safe storage of any mine waste. Site decommissioning and proper reclamation is a critical stage as long-term environmental damage can result unless these activities are carried out properly. Guided by stringent environmental requirements, the ministry, mining companies and other agencies take their responsibilities for reclamation seriously.

Saskatchewan's mining industry is guided by a number of statutes designed to safeguard the environment. Mining is a temporary activity that occurs on the land base, and leaving the

environment intact is an important guiding principle for the mining sector today. In the past, environmental protection measures were not as stringent as they are currently. Today, environmental protection is a concern for industry insiders as well as the general public. In keeping with *The Mineral Industry Environmental Protection Regulations*, every new mine must have an approved preliminary decommissioning plan and financial assurance in place prior to being given approval to operate.

In Saskatchewan, the decommissioning and reclamation of abandoned mine sites is guided by the Abandoned Mines Assessment Program which inventories and inspects all abandoned mines to identify existing and potential risk to public health, safety or the environment. These mines operated primarily in the 1950s and 1960s at a time when environmental regulations were much less stringent than they are today. Although this program ensures that all abandoned mines and exploration sites in northern Saskatchewan that pose potential environmental and public safety concerns will be assessed, the high costs of completing adequate reclamation is evaluated on a case by case basis.

### Objectives:

1. Reclaim all mining surface areas, following development activity, to a state that supports free-growing native vegetation, including the original tree species.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Ensure mine development and associated decommissioning and reclamation activity adheres to established government policy, guidelines and legislation for environmental protection.	<b>Ministry of Environment</b> , MER, DFO, Canadian Nuclear Safety Commission	Ongoing
Actively promote decommissioning and reclamation of all abandoned mine sites within the Misinipiy ILUP area as expeditiously as possible, considering available resources and the priorities established under the Abandoned Mine Assessment Program.	<b>Ministry of Environment</b> , MER	Ongoing
Continue to monitor and enforce the proper decommissioning and reclamation of active mine sites in the planning area.	<b>Ministry of Environment</b>	Ongoing

### 6.8.3 Sand & Gravel

In Saskatchewan, the development of sand and gravel resources on Crown land is governed by *The Crown Resource Land Regulations*.

Within the Misinipiy ILUP, a number of planning-related issues affect the exploration and development of new sites and the reclamation of existing sites. These issues include the effect of sand and gravel pits on the environment, on safety, difficulties for local communities to access sand and gravel, lack of development planning and reclamation and the lack of exploration for new sand and gravel pits.

Recent policy changes, such as forgiveness of permit fees on material used for infrastructure development, have begun to address the issue of local communities having difficulty securing access to sand and gravel. Since November 2003, it is worth noting that all communities including First Nations and Métis communities have been able to secure sand and gravel surface leases by signing a letter of guarantee to ensure adequate reclamation. Individuals or commercial sand and gravel surface lease holders are required to post a performance bond and must reclaim the affected area to the ministry's satisfaction within six months of completing excavation before the bond is released.

#### Objectives:

1. Encourage development of sand and gravel resources in the planning area.
2. Actively promote reclamation of completed sand and gravel sites.
3. Actively promote consistent application of new reclamation standards to both existing and new sand and gravel sites in the planning area.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Ensure new sand and gravel surface lease locations meet environmental, aesthetic and/or safety concerns.	<b>Ministry of Environment</b>	Ongoing
Ensure reclamation plans are in place and approved before issuing dispositions for new sand and gravel surface leases as per provincial standards and guidelines.	<b>Ministry of Environment</b>	Ongoing
Require existing leaseholders to adopt new reclamation standards.	<b>Ministry of Environment</b>	Ongoing

## 6.9 Recreation

### 6.9.1 Recreational Development and Maintenance

The Misinipiy planning area is abundant in wildlife and fisheries resources, outdoor recreation opportunities and scenic qualities that make the region a popular destination for outdoor recreation enthusiasts, both residents and non-residents alike. The tourism industry is growing, and this trend is expected to increase in the future.

Meeting the needs of the recreation-based sector often presents inherent challenges, given the need to balance the supply of quality camping experiences with public demand. Limited financial resources, the impact that new sites will have on the environment as a whole and the remote location of much of the area requires that trade offs be made.

Meeting existing and potentially increased demand for more recreational campsites as well as offering a variety of outdoor recreational experiences must also be considered in light of the demands that will be placed on existing facilities including docks, launches, fire pits, washrooms, picnic tables, and sewage disposal facilities. Within the planning area there are presently eleven government-maintained camping areas concentrated along Highway 102 from La Ronge to Dickens Lake. Privately operated camping facilities are available at Besnard Lake and on the Montreal River in Air Ronge. Some outfitters may accommodate overnight camping upon request.

In 1985, Saskatchewan Parks and Renewable Resources proposed a parks system plan that would “provide a balance between provision of recreational opportunities and the protection of important natural heritage resources” (SPRR, 1990). This plan was updated in 1990. Most of the wilderness campsites in the planning area are user-maintained, placing the onus for site maintenance on the users directly. As a result, some of the more popular sites are showing signs of over-use. It should be noted that all designated recreation sites are maintained to some degree through out the year. At present there is no limit on the number of users allowed to camp in the wilderness. There is also no ability to track the amount or extent of use.

#### Objectives:

1. Encourage outdoor recreational opportunities throughout the planning area.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Evaluate maintenance requirements of existing recreational facilities in the planning area to establish a priority schedule.	<b>Ministry of Environment</b> , TPCS, LLRIB	2013/2014



<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Identify new potential recreational locations and facilities to enhance and optimize outdoor recreational opportunities.	<b>Ministry of Environment</b> , TPCS, LLRIB	2012/2013
Undertake education regarding outdoor recreation ethics and in particular, waste management.	<b>Ministry of Environment</b> , TPCS, LLRIB	Ongoing
Incorporate Fire Smart actions throughout recreational facility maintenance and design.	<b>Ministry of Environment</b> , TPCS, LLRIB	Ongoing

### **6.9.2 Recreational Cabin Development**

Demand for cottage properties has been growing, primarily among the local population but also from those who reside in other parts of the province and outside of Saskatchewan. At present, prospective cottage owners must either purchase an existing cabin or apply for a remote lease north of the existing “Zone A” frozen zone boundary. The cottage resale market is enjoying a boom and given that the current demand for recreational cottages exceeds the available supply, costs have increased so that cabins close to La Ronge are no longer affordable for many residents.

With the development of the plan, the time is right to identify and evaluate the potential for new cottage subdivision development within the Northern Saskatchewan Administration District. In addition to alleviating the demand for cottage lots, an additional supply of cottage properties would provide additional recreational cabin opportunities and supplement the local economy. Rather than open the entire planning area to new cottage development, it is suggested several lakes serve as pilot projects for the organized development of clearly identified sites. These potential sites would have to comply with the provisions of the plan and with the governing principles and management actions that have been identified for the planning area.

#### **Objectives:**

1. Support the current Zone A freeze while evaluating the potential for organized recreational cabin development within the planning area.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Assess the demand for new recreational cabin development in the planning area.  Evaluate the potential and opportunity for development of new recreational cabin lots within the planning area on selected lakes on a pilot project basis.	<b>Ministry of Environment,</b> Ministry of Municipal Affairs, LLRIB	2012/2013
Involve other stakeholders in developing a plan for orderly recreational cabin subdivision development.	<b>Ministry of Environment,</b> Ministry of Municipal Affairs, LLRIB	2012/2013
As part of the subdivision review process consider appropriate water supply and wastewater options.	<b>Ministry of Environment,</b> Ministry of Municipal Affairs, LLRIB	Ongoing

### **6.9.3 Commercial Outdoor Recreation**

The term Commercial Outdoor Recreation (COR) refers to a wide range of non-consumptive outdoor recreational pursuits, including: ecotourism, adventure tourism, indigenous tourism and cultural tourism. All COR facilities are subject to the Ministry of Environment's policies for commercial development. Of particular relevance is the province's policy entitled "COR Activities and Developments on Crown Resource Land" which provides direction for COR activities and development on Crown resource land. This policy does not apply to commercial outfitting (*i.e.*, sport fishing and sport hunting).

The growth of the ecotourism sector nationally and internationally suggests that commercial outdoor recreation may be an area of focus in the future. There is a need to plan for and support the expansion of the commercial outdoor recreation market and to look at the planning area with regard to potential opportunity. At the same time, it is important to recognize the environmental implications and the need to closely monitor overall environmental impacts and implications.

#### **Objectives:**

1. To promote commercial outdoor recreational activities that are compatible with long-term environmental sustainability objectives.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Conduct an inventory of existing commercial outdoor recreation operations to determine the potential for new development opportunities.	<b>Ministry of Environment</b> , TPCS, LLRIB	2012/2013
Identify the impact of commercial outdoor recreation operations on ecosystem based management objectives, and develop remedial measures to mitigate and/or eliminate any net negative impacts.	<b>Ministry of Environment</b> , TPCS, LLRIB	2012/2013
The Ministry of Environment work with individuals interested in pursuing traditional ecotourism to provide information on permitted activities and required approvals.	<b>Ministry of Environment</b> , LLRIB	2012/2013
Conduct research on the nutritional value of traditional foods.	<b>LLRIB</b>	2012/2013

## 6.10 Wild Rice

The commercial harvesting of wild rice provides important economic benefits to residents of the Misinipiy planning area. There are an estimated 106 wild rice permits and licences issued on 158 water bodies in the planning area. Maintaining organic certification, appropriate use of wild rice cabins, water levels, water traffic through wild rice fields and the impacts of wild rice farming on fish and wildlife populations are other areas of concern that are managed through application of *The Wild Rice Regulations*, updated in 2005.

Objectives:

1. To support the growing and harvest of wild rice in the planning area, while monitoring effects on the aquatic environment.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Timeline</b>
Ensure any new developments or activities using chemicals adjacent to wild rice fields do not affect the organic certification of wild rice.	<b>Ministry of Environment</b> , Ministry of Agriculture	Ongoing

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Timeline</b>
Ensure leaseholders maintain clear pathways through wild rice fields and water traffic is not impeded by uncontrolled growth.	<b>Ministry of Environment</b>	Ongoing
Continue to carry out research regarding effects of wild rice on plants and animals in northern lakes.	<b>Ministry of Environment</b>	Ongoing
Undertake education and awareness activities with respect to the needs of wild rice growing and the importance of not disturbing these areas until they mature properly on an as-needed and ongoing basis. Educate the public about their role and the importance of not trespassing over wild rice fields, which can result in crop damage.	<b>Ministry of Agriculture, Ministry of Environment, Wild Rice Licensees and Permit Holders</b>	2012/2013

## 7 Plan Implementation and Assessment

The Misinipiy ILUP will be implemented by a number of provincial government ministries. The Ministry of Environment will lead implementation of the plan, working with its clients and partners to achieve the land use objectives and management actions identified herein. Many of the actions require a collaborative effort; the ministry will continue to work closely with members of the public, the LLRIB, stakeholders and business interests as well as special interest groups and NGOs to move forward on recommended activities. In addition, and as noted at the very outset of this plan, many of the philosophies and longer-term directions will be further refined in other planning mechanisms.

While the involvement of all are welcome and will continue to be encouraged, the ministry will create an advisory group to formally assist the ministry with implementation and ongoing assessment and monitoring of the plan. The plan must be reviewed every five years to ensure the objectives and actions remain current. In addition to the formal five-year review, efforts identified in this plan will be regularly monitored and assessed.

Members of the advisory group will meet to review implementation plans and to provide advice and guidance to the ministry. This group will also provide an opportunity for First Nations, Métis and communities in the planning area to continue to work with the province to implement the direction forthcoming from the Misinipiy ILUP.

**Objectives:**

1. To work collaboratively to uphold the principles, objectives and management actions identified.
2. To actively encourage the ongoing participation of government agencies at all levels (including First Nations and Métis representatives), special interest groups and organizations, as well as local residents and members of the interested public in the implementation and assessment of the approved Misinipiy ILUP.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Form an advisory group to assist with implementation of the plan.	<b>Ministry of Environment, LLRIB</b>	2012/2013

**7.1 Government Involvement**

Implementation of this strategy will rest on the active involvement and leadership demonstrated by the province through its various ministries, agencies and boards. With a number of actions requiring collaboration and partnership, it will be critical to ensure cooperation between all levels of government (Federal, Provincial, Municipal, First Nations and Métis). Following through to begin work on the management actions is the key to upholding the fundamental governing principles and the key objectives of the plan.

<b>Actions</b>	<b>Responsible Agencies (Lead Agency Bolded)</b>	<b>Initiation Timeline</b>
Distribute the actions and zoning framework from the approved Misinipiy ILUP to all relevant government ministries and agencies.	<b>Ministry of Environment</b>	2012/2013

**7.2 Implementation Process**

Experience has shown that plans will be implemented by those who have been involved in their development. Throughout the development of this plan, there has been extensive support, involvement and participation from the LLRIB, northern community members, government ministries and agencies, special interest groups (in particular the environmental community) and members of the public.

The Misinipiy ILUP has identified a number of objectives and actions. Implementation and assessment of the plan will be based on the following governing principles:

- All levels of government, the general public, First Nations and Métis, and NGOs will be encouraged to participate throughout the land use planning process, including plan implementation, review and assessment.
- Adaptive management is promoted in order to continually improve the knowledge base and understanding of the ecosystems within the Misinipiy ILUP.
- Implementation and long term planning will be carried out in accordance with applicable legislation, policy and guidelines and follow the principles of ecosystem-based management so as to not compromise the opportunities of future generations. In particular, the plan will recognize and promote the following interdependent principles of ecosystem-based management:
  - focus on the long-term view
  - concentrate on ecosystem health and integrity
  - make decisions based on science, traditional knowledge and human values
  - involve those who will be affected by decisions or who have an interest in the outcome
  - use adaptive management by learning from experience
  - look at the big picture
- Those involved in plan implementation and assessment will recognize and value the perspectives and interests of all participants.

As with most planning initiatives, the human and financial resources required to implement actions are allocated according to priority and some actions may not be initiated immediately. Actions identified for responsibility by a lead ministry or agency should be included in their operating work plan for the following year. In some cases it will be necessary to complete the implementation of one action item prior to the initiation of another. As with other projects, resources allocated to implement the actions in the plan will be evaluated on an annual basis within ministry work plans.

### **7.3 Provisions for Amending the Misinipiy ILUP**

The Misinipiy ILUP has been a work in progress since 1999. Over this time period, a great deal of information and data has been gathered – hard scientific data on the land and resources of the planning area as well as local traditional ecological knowledge.

One might assume that we have all of the answers about the planning area. While we do know a great deal about the planning area, science continues to evolve, as does our understanding of the linkages between various components of the ecosystem. As new information comes to light, there will be opportunity to amend and update this plan.

Regular and ongoing monitoring of the plan will be undertaken to evaluate the impact of change as it affects the planning area, its resources and its people.



Whether an amendment is initiated to implement new or updated policy information or is proposed as a result of the intended five-year review, the process to amend the plan will include opportunities for the public and interest groups to be involved.

## **7.4 Dispute Resolution Process**

Land use planning is inherently complex. The process requires that the interests of a range of uses and users be considered. At times, the use of the resource base can lead to differences of opinion between participants and require the application of dispute resolution techniques. Dispute resolution techniques are used often very effectively, to find win/win solutions that satisfy all parties.

Generally speaking, there are two different approaches to handling conflicts or disputes: preventative-based actions and resolution-based actions.

Preventative-based actions are those that focus on early engagement – the objective being to eliminate conflicts or concerns from arising in the first place. Having an effective communications strategy and an established process for engaging stakeholders and residents early in the planning process is an essential way of preventing conflicts and concerns from arising.

For everyone involved in developing land use plans, some preventative-based approaches to consider include the following:

- Ensure there is appropriate representation and participation of stakeholders from communities within the planning area, designating equal responsibility for each representative (or their alternate) to attend each meeting, and to participate meaningfully in discussion and decision-making.
- Encourage participants to listen attentively to others, and understand that other participants' interests are equally valuable to their own.
- Encourage all participants to provide information and engage in discussion in a clear, understandable, respectful, and rational manner.

In the event that a conflict or conflicts cannot be resolved through discussion, there is a formal dispute resolution process. The following process describes the resolution-based approach that is in place:

- Resolution should begin with collaborative problem-solving processes with consensus as a desired outcome.
- The formation of a regional advisory group for the Misinipiy planning area will assist in resolving disputes and also provide a framework for managing future conflict.
- The settlement of the dispute (consensus recommendation) would then be forwarded to the appropriate Cabinet Minister(s) for approval.
- If full agreement is not achieved within the regional advisory board setting, areas of agreement and disagreement should be recorded, including potential options, and forwarded to appropriate Cabinet Minister(s) for resolution.

## 8 Appendices

### Appendix 1 Glossary of Terms

**Adaptive Management:** Management practices that are monitored, evaluated and adjusted (as required), based on current knowledge and understanding.

**Archaeological Heritage Resources:** Sites, structures, objects or other evidence of past human activity, which can be used to reconstruct and explain the life ways of indigenous and early historic peoples.

**Benchmark:** Something that serves as a standard by which others may be measured.

**Biodiversity:** The variability among living organisms from all sources, including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part. This includes diversity within species and between species and diversity of ecosystems.

**Boreal Forest:** One of three main forest zones in the world, located in northern regions and is characterized by the predominance of conifers.

**Deforestation:** Permanent removal of forest cover and withdrawal of land from forest use, whether deliberately or circumstantially. Forest Management does not result in deforestation, except where permanent roads and landings are built.

**Ecological Integrity:** The structure and function of the ecosystem are unimpaired by human caused stresses; the native species are present at viable population levels.

**Ecosystem:** An area of land or water, considered in relation to all of its components (soil, water, air, plants, animals, microbes) and the interactions among them. A forest stand is an ecosystem, if viewed as an interacting system of all these components, and not just as a group of trees.

**Ecosystem-based Management:** Ecosystem-based management is a process that integrates biological, social and economic factors into a comprehensive strategy aimed at protecting and enhancing sustainability, diversity and productivity of natural resources.

**Eco-tourism/Eco-outfitting:** Is respectful, environmentally responsible travel to relatively undisturbed and uncontaminated natural areas, with the objectives of studying, admiring and enjoying the scenery, wild plants and animals, and cultural features.

**Enduring Features:** Enduring features are used to guide site selections in the RAN program. Enduring features are specific rock, soil and land-form types that are very stable over long periods of time, and are likely to support characteristic plant and animal communities. Enduring features are defined based on four specific factors: the origin of the parent material: this relates to the method by which material such as soil, gravel or rocks was deposited (i.e. wind, water, glacial melt water). Soil development: how soils were formed through various factors like climate, soil organisms, the nature of the parent material, the topography of an area, and time. Surface form: physical landscape features such as eskers or potholes. Slope: refers to the steepness or grade of the surface terrain.

**First Nations:** Refers to individuals who are registered as status Indians and governed by Canada through provisions of the Indian Act.

**Aboriginal rights:** as defined by Section 35 of the Constitution Act, 1982.

**Forest:** 1. **Ecology:** Generally, an ecosystem characterized by a more or less dense and extensive tree cover. More particularly, a plant community predominantly of trees and other woody vegetation, growing more or less closely together. 2. **Silviculture/forest management:** An area managed for the production of timber and other forest produce, or maintained under woody vegetation for such indirect benefits as the protection of watersheds, the provision of recreation areas, or the preservation of natural habitat.

**Forestry:** Generally, a profession embracing the science, business, and art of creating, conserving, and managing forests and forest lands for the continuing use of their resources, material or other. The profitable exploitation of the resources intrinsic to forest land. "The science, the art and the practices of managing and using for human benefit the natural resources that occur on and in association with forest lands."

**Forest Management Agreement:** Agreement between the Province of Saskatchewan and a forest company to give the company long-term access to timber as well as management responsibilities on a specific area of land.

**Forest Management Plan:** a forest management plan required to be approved by the minister pursuant to clause 38(1) or 45(a) of FRMA.

**Forest Products:** means all vegetation on or from forest land or waters on or associated with forest land, whether alive, dead or cut, and includes trees, shrubs, herbs, grasses, mosses, fungi and any parts or components of that vegetation.

**Forest Resources:** means all resources and values associated with forest ecosystems, whether biotic, abiotic, social or economic, and includes animals, vegetation, land, water, air and recreational, spiritual and heritage values but does not include any Crown mineral within the meaning of The Crown Minerals Act.

**Habitat:** The environment in which a population or individual lives; includes not only the place where a species is found, but also the particular characteristics of the place (e.g., climate or the availability of suitable food and shelter) that make it especially well suited to meet the life cycle needs of that species.

**Harvest:** means to cut, pick, gather, collect, accumulate or remove forest products by any means.

**Hectare:** a metric measure of area (10,000 square meters), equal to 2.471 acres.

**Integrated Resource Management:** A holistic approach to resource management that entails the management of 2 or more resources (e.g., water, soil, timber, pasture, wildlife, and recreation) and that integrates the values of the community into the design of policies or projects to use and sustain these resources in perpetuity.

**LLRIB:** refers to Indian people registered as members of the Lac La Ronge Indian Band.

**Minister:** means the member of the Executive Council assigned responsibility for the Ministry of Environment.

**Mitigation:** To reduce the severity of, or eliminate negative impacts resulting from a particular activity.

**Métis:** Refers to decedents of mixed relations prior to the signing of the treaties of Canada (native and European).

**Non-timber forest products:** Any commodity obtained from the forest that does not necessitate harvesting trees.

**Old-growth forest:** A forest dominated by mature or over mature trees that has not been significantly influenced by human activity. The stand may contain trees of different ages and various species of vegetation.

**Operating plan:** means an operating plan required to be approved by the minister pursuant to clause 38(1)(b) or 45(b) of FRMA.

**Overmature:** Tree or stand that has passed the age of maturity where the rate of growth has diminished and the trees are weakened.

**Planting:** Establishing a forest stand by setting out seedlings, transplants, or cuttings.

**Prescribed burn:** the controlled application of fire to naturally occurring vegetative fuels, under specified environmental conditions and following appropriate precautionary measures, to achieve specific silvicultural objectives, such as brush and hardwood control, production of high quality browse, exposure of mineral soil for pine seed germination, or reduction of fuel hazards.

**Productive Forest Land:** Land capable of producing merchantable stands of timber within a „reasonable length of time“.

**Prohibited use:** A development or land use activity that is not allowed in a land use planning area.

**Provincial Forest:** means any Crown resource land designated by the Lieutenant Governor in Council pursuant to section 12 of *FRMA*.

**Reforestation / Regeneration:** The renewal of a forest or stand of trees by natural or artificial means.

**Representative Area:** A representative area is a sample or piece of a particular landscape identified because of its important land-forms, wetlands, soils, plants, animal resources or cultural values. Representative areas are intended to allow for natural processes to occur. They can also serve as test sites that can be studied and monitored to measure how well we are managing natural resources and ecosystems elsewhere in the province.

**Riparian Area:** An area of vegetation found between aquatic (rivers, creeks, lakes, sloughs, potholes, hay meadows and springs) and terrestrial (upland) ecosystems.

**Soil Disturbance:** is an area in which forest floor vegetation and/or tree stumps are removed exposing organic or mineral soil.

**Species Diversity:** Species diversity or species richness refers to the variety of organisms found within an area. Species diversity is influenced by a variety of ecological and environmental processes that include habitat size, disturbance regimes, habitat heterogeneity, invasion history, and soil moisture regimes. The response to change in habitat is different in different populations. The life-span and reproductive rates of mice, deer, birds, and bear, and that of white spruce, pine, lichens or grasses all differ and will respond differently to disturbances and change over time and space.

**Spruce budworm:** An insect that damages spruce and fir trees. Eggs of the spruce budworm are laid on branches by an adult moth. Young budworms feed primarily on the new growth of the tree branch, but also eat older needles. Defoliation results, killing the tree.

**Stand:** A community of trees possessing sufficient uniformity in composition, age, arrangement, or condition to be distinguishable from the forest or other growth on adjoining areas, thus forming a silvicultural or management entity.

**Strategic Guidelines and Actions:** Strategic Guidelines are statements of policy or procedure that determine a course of action, including a rule or set of rules that provide guidance on what to do in a situation. Strategic actions describe organized activities or tasks that accomplish an objective.

**Subsistence gathering:** means gathering on Crown land of any forest product solely for the ceremonial, consumptive or medicinal use of: (a) the person gathering; or (b) a member of that person's immediate family; but does not include gathering of trees, other than dead or down trees for fuelwood pursuant to section 17 of *FRMA*.

**Sustainable development:** Sustainable development is an approach by which human activities account for long-term health, wealth, and equity, through respect for the tolerance of the environment, of the economy and of social acceptance, including fairness toward future generations. Because such an encompassing and value-laden approach lends itself to

interpretation and to varied applications, the adoption and evolution of sustainable forms of development hinge on public acceptance, and therefore on the public's trust in decision-making. It also brings a further requirement to incorporate society's changing views and values into decisions about planning processes, research priorities, forest practices, manufacturing practices, marketing and consumption.

**Sustainable Management:** Management to maintain and enhance the long-term ecological integrity of forest ecosystems, while providing economic, social, cultural and spiritual opportunities for the benefit of present and future generations.

**Term Supply License:** means a licence granted by the minister pursuant to section 42 of FRMA.

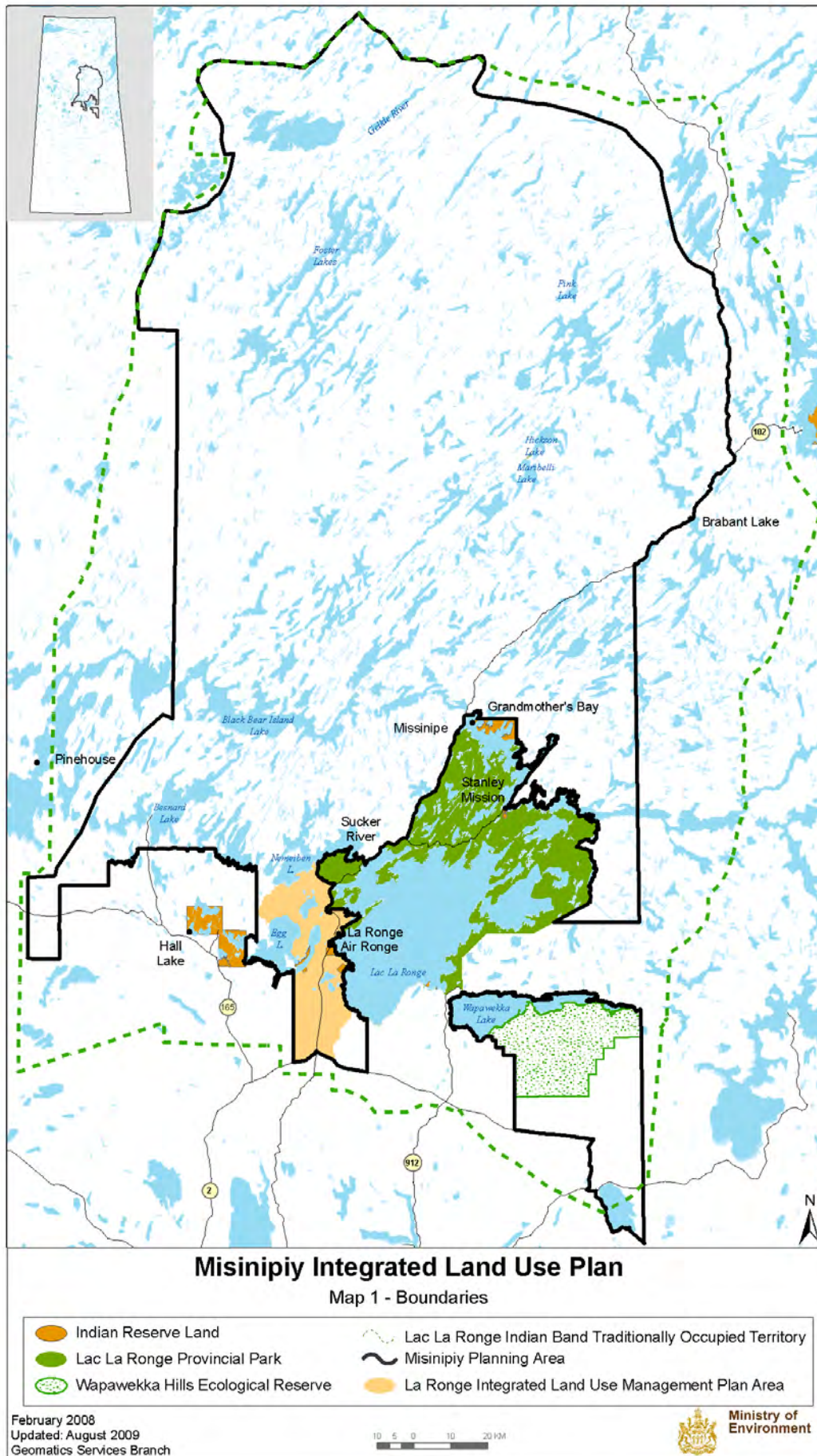
**Value-added product / Value-added production:** Adding value to a product by further processing it. Examples of value-added wood products include joinery stock, windows, doors, kitchen cabinets, flooring and mouldings. Value-added pulp and paper products include such items as packaging, diapers, coated papers, tissue, business papers and stationery, and other consumer paper products.

**Visually Sensitive Areas:** Landscape areas that are visible from communities, public recreation areas and major travel corridors, including roadways and waterways, and any other areas identified through the planning process that.

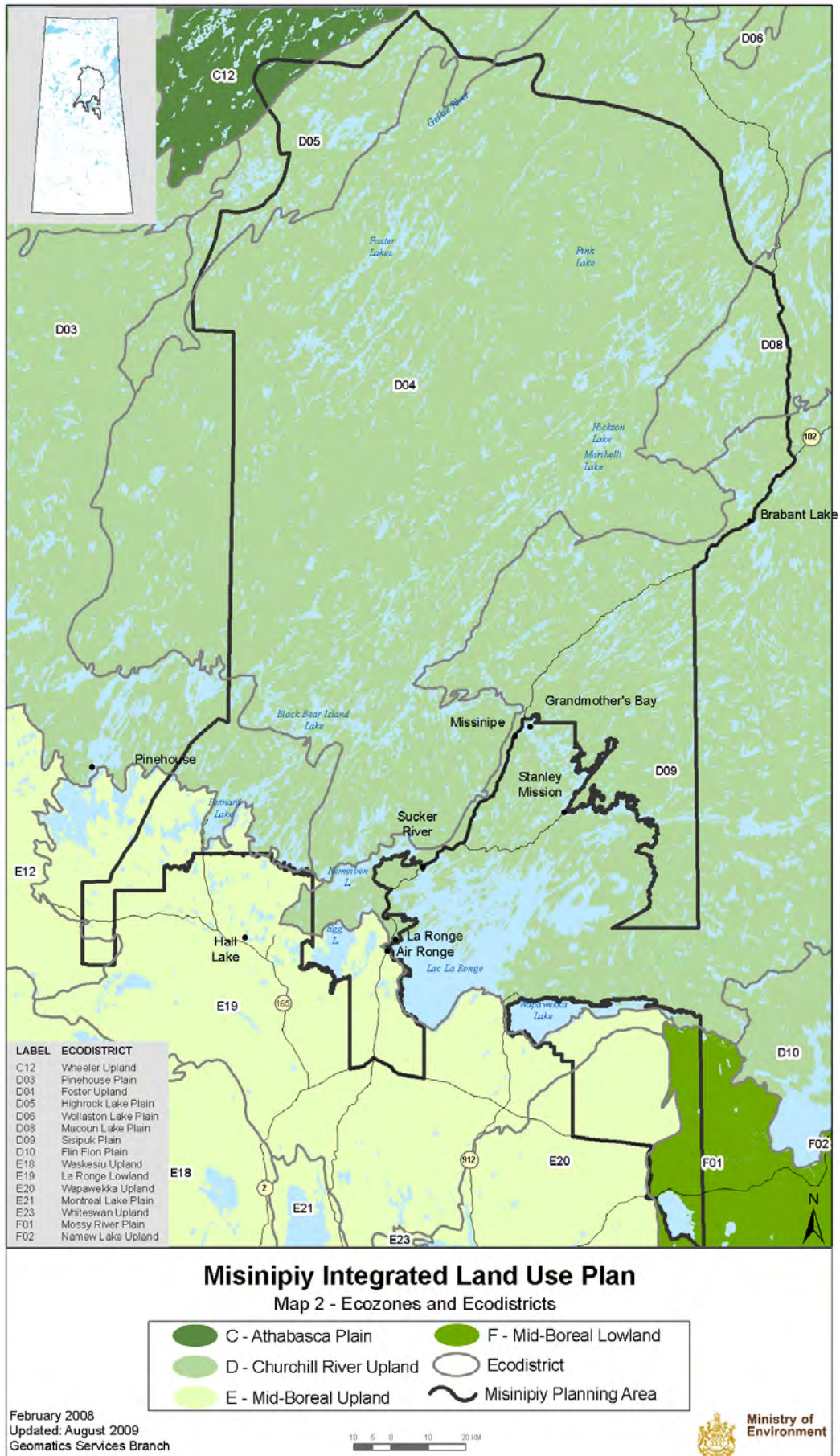
**Watershed:** An area of land that is drained by underground or surface streams into another stream or waterway.



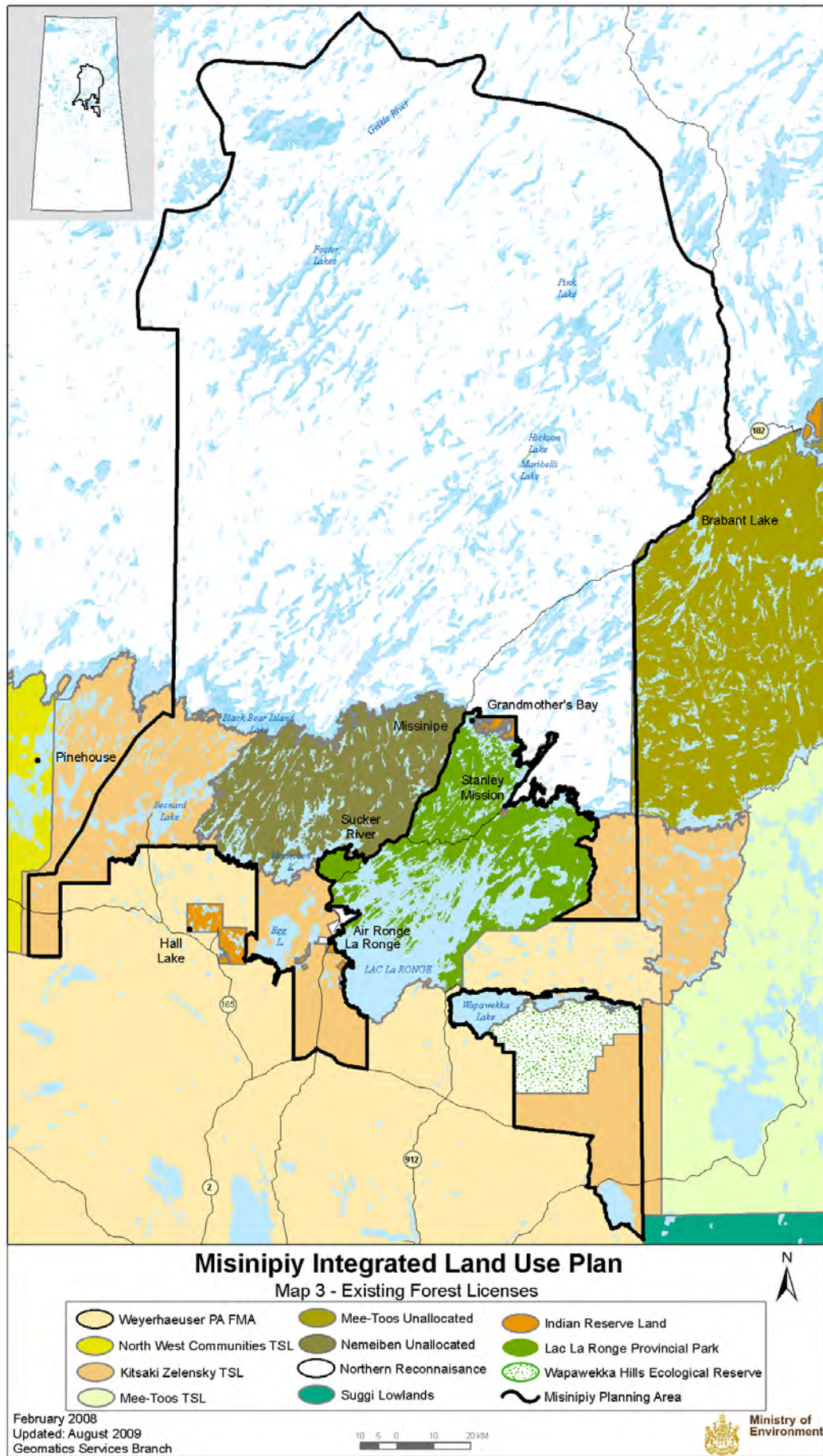
## **Appendix 2 Misinipiy ILUP Maps**



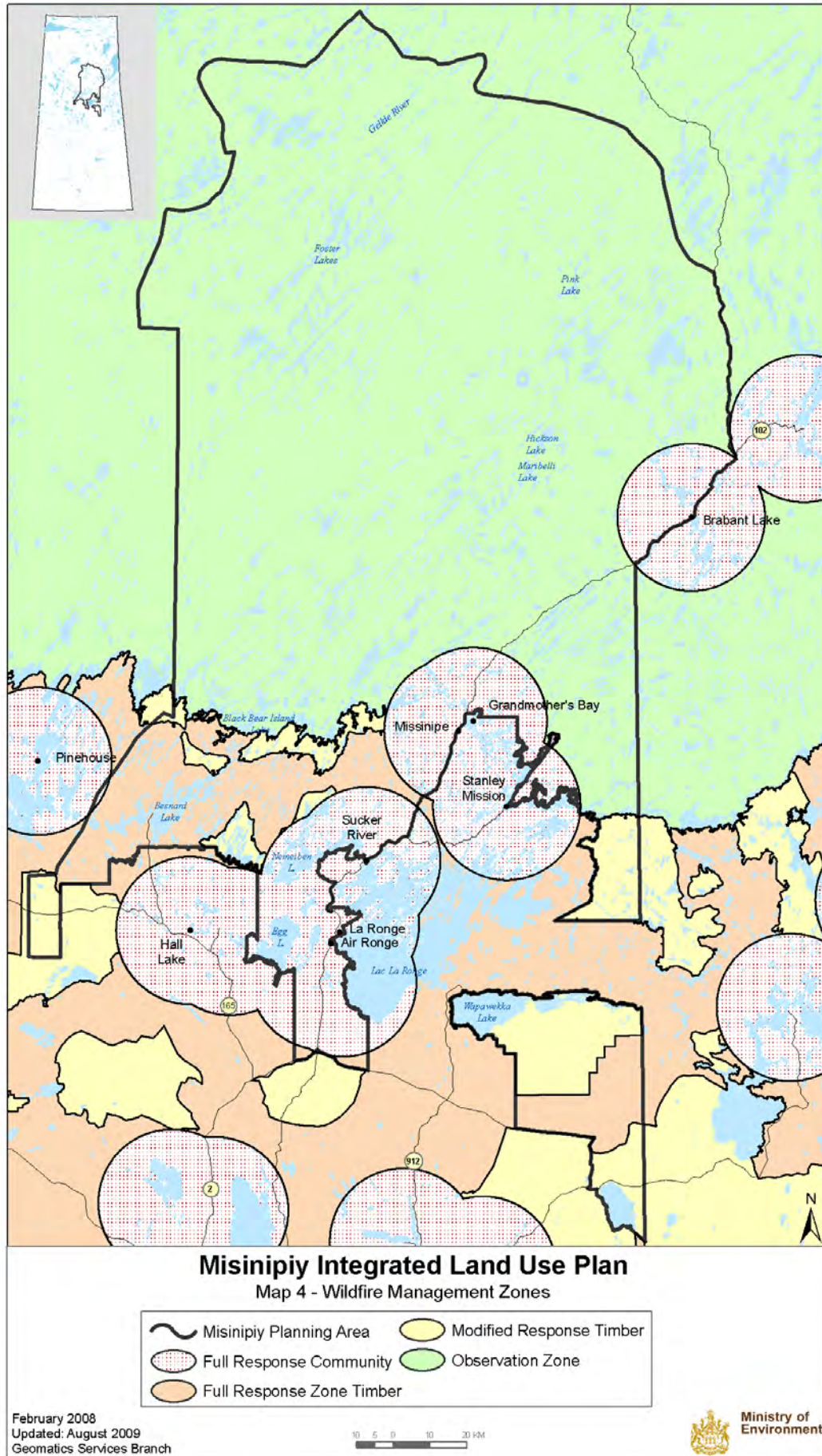




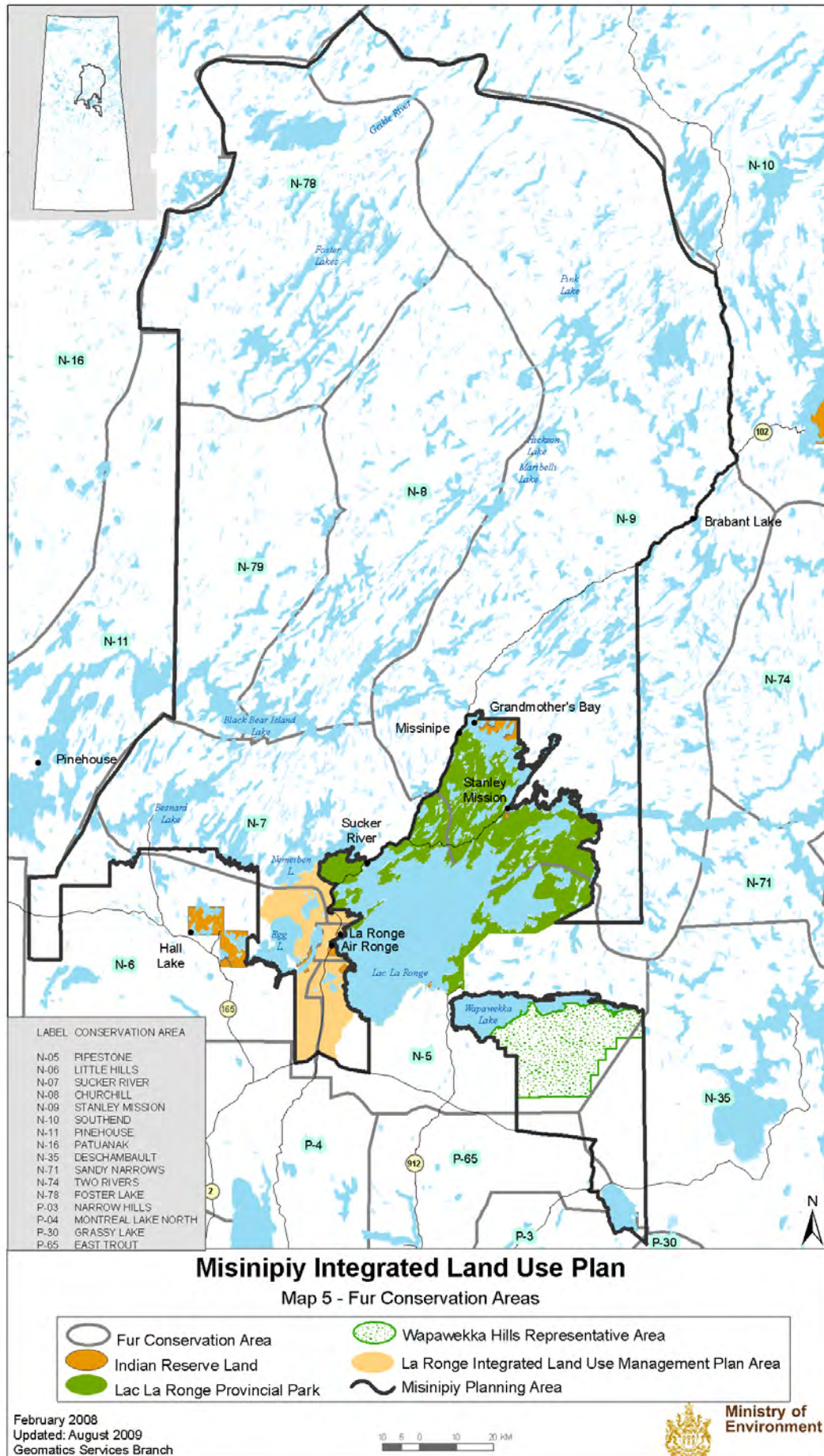




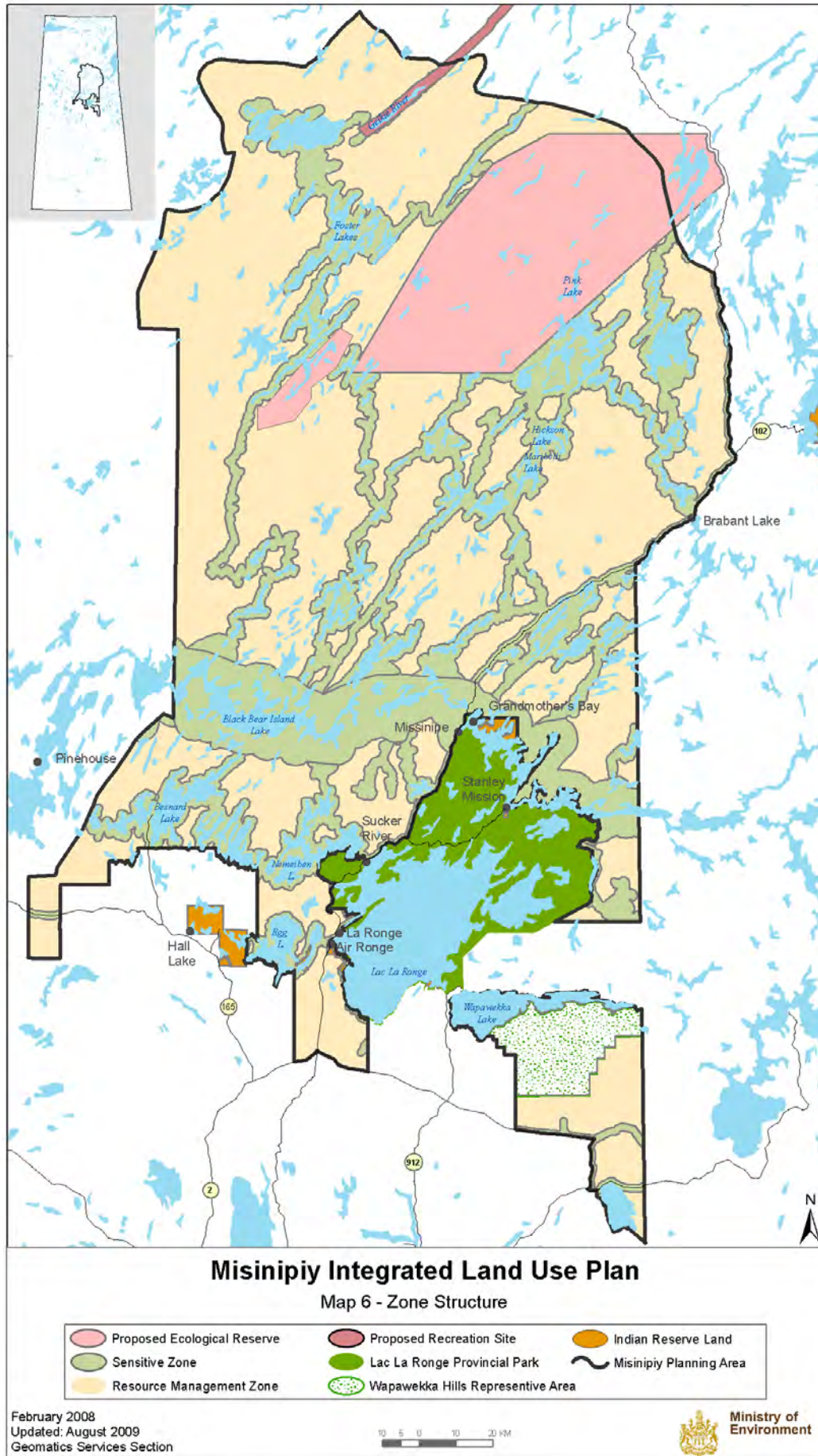












### **Appendix 3 Excerpt from 2005 LLRIB Land Use Policy**

The LLRIB is the political and administrative body whose traditional land covers the majority of the planning area. The band's business arm, Kitsaki Management Limited Partnership, is a proponent for business development and employment. The band (and its members) is active in the planning process, providing significant knowledge and input as an active and passionate advocate for their traditional lifestyle and culture, and as a proponent seeking greater responsibility in the area of integrated resource management.

***Note: The following section is an excerpt from the original document, LLRIB Policy on Traditional and Contemporary Land Use, dated September 30, 2005.***

#### **Major Land Use Issues**

Key land use issues include the following:

1. The authority of the band to administer and manage the use and development of their Traditional Lands within the North Central Land Use Area. Such management would encompass: protection of its ecology; sustainable use of wildlife, timber, and NTFP; water and mineral resources; and ongoing controlled access to areas and sites of spiritual and cultural significance.
2. Development of a FMA that is guided by Traditional Knowledge and Values.
3. Economic Development in accordance with the band's Development Philosophy, encompassing:
  - a. A commitment to a healthy environment;
  - b. Protecting the traditional cultural pursuits of its members;
  - c. Planned Commercial Enterprises; and
  - d. Continuing support for existing Subsistence and Commercial Uses (hunting, fishing, trapping, gathering of plant products such as berries, mushrooms, and wild rice).
4. Development of a full range of tourism projects appropriate to specific areas, including tourism focused on ecology, culture, regional and aboriginal history, nature and photography, and all levels of wilderness adventure.
5. Ongoing, controlled access to desirable areas (including hunting, fishing, trapping, gathering, burial, and ceremonial sites) through maintenance of an environmentally sensitive network of roads, trails, and portages.
6. Conservation of the environment, encompassing: air and water quality; protection of the Boreal Shield Ecozone; biodiversity of forest plants, fish, and wildlife; sustainable

commercial and industrial development; waste management; and areas of restricted access.

## 7. Resolution of Traditional Lands boundaries.

### Status of band – Government Engagement Toward Establishment of an FMA within Traditional Lands

The LLRIB and the Province are engaged in a dialogue leading toward the establishment of a FMA within the band's Traditional Lands. The progress being achieved is demonstrated by several key points in the correspondence between Chief Tammy Cook-Searson and David Forbes, Minister of Saskatchewan Environment.

1. Points from the letter of Chief Tammy Cook-Searson to Minister Forbes on May 03, 2005:
  - a. Much of the band's Traditional Lands are within the land use planning boundaries.
  - b. Chief and Council support the band's vision of balanced traditional uses and sustainable economic development of the resources within the Traditional Lands.
  - c. The band will continue the policy of working in partnership with Department of Environment planners towards the completion of the Misinipiy Integrated Land Use Plan.
  - d. We see a FMA as a unique opportunity to manage our Traditional Lands in a way which balances traditional use and economic development. This will be of benefit to our band membership, our partners, other northerners, and Saskatchewan citizens in general.
2. Points from the letter of Minister Forbes to Chief Tammy Cook-Searson on May 25, 2005:
  - a. The Government has been committed to providing First Nations and Métis an opportunity to manage large tracts of forest land for the benefit of their communities.
  - b. The North Central Land Use Plan was initiated to ensure that this commitment was in balance with the environment and the economic needs of the communities.
  - c. The planning area was initially just the former Weyerhaeuser Licence Area, but was expanded at the band's request to include most of its Traditionally Occupied Territory, allowing for even more flexibility in balancing the many interests in the area, including the protection of the Churchill River and other special waterways.
  - d. The North Central Land Use Plan provides the strategic framework for the FMA.

- e. The Government is committed to working with the band and its communities to ensure that they are very much a part of the management of the forest in their Traditionally Occupied Territory.
- f. The key to achieving your goals and ours is a balanced strategic framework that stresses that both environmental and economic sustainability are very connected in the North Central Land Use Area.

### Summary

It is the belief of the LLRIB that our goals and aspirations for the social and economic development of our people can best be achieved by working through the structures and relationships established by our treaty in partnership with the governments of Canada and Saskatchewan. And in order to achieve self-determination, our band requires a Land and Resource Base within our Traditional Lands. As has been detailed in this Paper, the band specifically wishes to work in collaboration with all stakeholders to secure a FMA and pursue the sustainable development of our resources.

## Appendix 4 Zone Activities

The following table is provided to define uses permitted and not permitted in the land use zones found in Section 6, further defining the Protected, Sensitive and Resource Management Zones.

This table provides the most common examples of land use activities and is not intended to represent an exhaustive list. This list represented the uses that are compatible and with each land use zone. However this list is **not** to be considered authorization or approval for activities that require licences, permits or other land dispositions. If you have any questions about approvals please feel contact your local Ministry of Environment office.

The requirements for activities not listed in this table will be determined on a case-by-case basis, and the review and approval of activities will be consistent with the zone objectives.

Code	Description of the Requirements for Each Activity
P	Activity permitted however in many cases a license, permit or disposition is required
P1	Authorization requires applicant to accommodate other sensitive values
EA	Existing activities are allowed to continue as per present allocation
NP	Activity not allowed
NP1	Activity not permitted however exception may be identified through a management plan and/or legislation
N/A	Activity not applicable to the area
EIA	Activities approval process often includes an Environment Impact Assessment

Land and Resource Uses	Management Zone	Sensitive Zone	Protected Zone						
			Ecological Reserves Act			The Parks Act			Heritage Property Act
			Wapawekka Hills	Proposed Pink Lake	Proposed Foster Lakes	Proposed Geikie River	Hickson-Maribelli Lakes Pictographs Protected Area	Provincial Recreation Sites	Heritage Property
Dispersed outdoor recreation: walking, hiking, backpacking, skiing and camping	P	P	P	P	P	P	P	P	P
Trapping	P	P	P	P	P	P	P	P	P
Traditional Resource Use Cabins	P	P	P	P	P	P	P	P	P1
Hunting	P	P	P	P	P	P	P	P	P

Land and Resource Uses	Management Zone	Sensitive Zone	Protected Zone						
			Ecological Reserves Act			The Parks Act			Heritage Property Act
			Wapawekka Hills	Proposed Pink Lake	Proposed Foster Lakes	Proposed Geikie River	Hickson-Maribelli Lakes Pictographs Protected Area	Provincial Recreation Sites	Heritage Property
Angling	P	P	P	P	P	P	P	P	N/A
Commercial Fishing	P	P	EA	EA	EA	EA	N/A	N/A	N/A
Own use harvesting of non-timber forest products (non treaty or aboriginal)	P	P	P	P	P	P	P	P	N/A
Commercial harvest of NTFP	P	P1	NP	NP	NP	NP	NP	NP	N/A
Outfitting including baiting of wildlife	P	P	EA	EA	EA	EA	EA	EA	N/A
Exercising of treaty and aboriginal Rights	P	P	P	P	P	P	P	P	P
Linear and access development: road, trail or utility	P	P1	NP1	NP1	NP1	NP1	NP1	NP1	NP
Existing Wild Rice production	P	P	EA	EA	EA	EA	N/A	N/A	N/A
Development of new wild rice growing areas	P	P1	NP	NP	NP	NP	N/A	N/A	N/A
Forest Management Agreement	P EIA	P EIA	NP	NP	NP	NP	NP	NP	P1
Commercial timber harvesting	P	P1	NP	NP	NP	NP	NP	NP	NP
Forest renewal programs	P	P1	NP	NP	NP	NP	NP1	NP1	NP
Suppression of wildfire	P	P	P1	P1	P1	P1	P1	P1	P1
Fire salvage logging	P	P1	NP	NP	NP	NP	NP	NP	NP
Low impact mineral exploration	P	P	NP1	NP	NP	NP1 EA	NP	NP	NP
Intensive Mineral Exploration	P	P1	NP1	NP	NP	NP1 EA	NP	NP	NP
Mine development and operation	P EIA	P1 EIA	NP1 EIA	NP	NP	NP1 EA EIA	NP	NP	NP
Grazing and livestock containment	NP	NP	NP	NP	NP	NP	NP	NP	NP
Recreational cottage subdivisions	P	P1	NP	NP	NP	NP	NP	NP1	NP



Land and Resource Uses	Management Zone	Sensitive Zone	Protected Zone						
			Ecological Reserves Act			The Parks Act			Heritage Property Act
			Wapawekka Hills	Proposed Pink Lake	Proposed Foster Lakes	Proposed Geikie River	Hickson-Maribelli Lakes Pictographs Protected Area	Provincial Recreation Sites	Heritage Property
Residential or recreational cabin leases	NP	NP	NP	NP	NP	NP	NP	NP	NP
New or expanded outfitting	P	P1	NP	NP	NP	NP	NP	NP	NP
Commercial lease to support tourism or commercial ventures	P	P1	NP	NP	NP	NP	NP	P1	NP
Water Control Structures and Hydroelectric projects	P EIA	P1 EIA	NP	NP	NP	NP	NP	NP	NP
Research and educational activities	P	P	P1	P1	P1	P1	P1	P1	P1
Research study plots requiring major disturbance	P	P1	NP	NP	NP	NP	NP	NP	NP
Game ranching	NP	NP	NP	NP	NP	NP	NP	NP	NP
Extraction of sand, gravel, and construction material	P	P1	NP	NP	NP	NP	NP	NP	NP
New Shoreline development	P	P1	NP	NP	NP	NP	NP	NP1	NP
Introduction of non-native fish species (i.e. sport fishing)	P1	P1	NP1	NP1	NP1	NP	N/A	N/A	N/A
Aquaculture	P	P1	NP	NP	NP	NP	N/A	N/A	N/A
Institutional lease	P	P1	NP	NP	NP	NP	NP	NP1	NP
Industrial lease	P	P1	NP	NP	NP	NP	NP	NP	NP

## Appendix 5 Lac La Ronge Indian Band Council Resolution



Indian and Northern  
Affairs Canada

Affaires indiennes

et du Nord Canada

Chronological no. No consécutif

BCR L.R. #2009/10 - 029

File reference no. - No de référence du dossier

### BAND COUNCIL RESOLUTION RÉSOLUTION DE CONSEIL DE BANDE

NOTE: The words "from our Band funds" "capital" or "revenue", whichever is the case, must appear in all resolutions requesting expenditures from Band Funds.  
NOTA: Les mots "des fonds de notre bande" "capital" ou "revenu" selon le cas doivent paraître dans toutes résolutions portant sur des dépenses à même les fonds des bandes.

The council of the Le conseil de					LAC LA RONGE INDIAN BAND		Cash free balance - Solde disponible	
Date of duly convened meeting Date de l'assemblée dûment convoquée					D - J 08	M 09	Y - A 2009	Province SASK.
							Capital account Compte capital \$	
							Revenue account Compte revenu \$	

DO HEREBY RESOLVE:  
DÉCIDE, PAR LES PRÉSENTES:

**WHEREAS** The Ministry of Environment has been working on the development of the "Misinipi Integrated Land Use Plan" since 1999; and

**WHEREAS** the Misinipi planning areas includes a majority of Lac La Ronge Indian Band's Traditional Occupied Territory; and

**WHEREAS** during the past 2 years the Lac La Ronge Indian Band has worked with the Ministry of Environment and conducted a review of the Misinipi Integrated Land Use Plan with Band elders and membership; and

**WHEREAS** as a component of the Band Review an Elders Gathering was held June 2nd to 5th, 2009. During this gathering Elders had opportunity to discuss the plan amongst themselves and with members of the appointed working group. At completion of a presentation on the plan, elders present voted unanimously to support the Land Use Plan; and

**WHEREAS** the Chief and Headmen in 1889 agreed to share our traditional lands and resources; and

**WHEREAS** the Lac La Ronge Indian Band traditional lands and resources have sustained and maintained our membership since time immemorial; and

**WHEREAS** the Lac La Ronge Indian Band Chief, Council and Elders wish to retain benefits from our traditional lands and resources for present and future generations of our members and citizens; and

**THEREFORE BE IT RESOLVED** that the Chief and Council commit to work in partnership with the Government of Saskatchewan for the better management of our traditional occupied lands and resources; and

**THEREFORE BE IT FURTHER RESOLVED** that it is acknowledged by the Lac La Ronge Indian Band and the Government of Saskatchewan that the Misinipi Integrated Land Use Plan is a "Living Document" and that our knowledge will accumulate over time; and

**THEREFORE BE IT FURTHER RESOLVED** that "nothing in this plan is intended to abrogate or derogate from the existing aboriginal or treaty rights of Aboriginal Peoples in Saskatchewan, as recognized and affirmed by Section 35 of the Constitution Act 1982"; and

**THEREFORE BE IT FURTHER RESOLVED** that the Lac La Ronge Indian Band endorses the Misinipi Integrated Land Use Plan September 2009 in partnership with the Ministry of Environment to ensure appropriate implementation and appropriate share of benefits to our band membership.

Quorum

(Councillor - Conseiller)

(Councillor - Conseiller)

(Councillor - Conseiller)

(Councillor - Conseiller)

(Councillor - Conseiller)

(Chief - Chef)

(Councillor - Conseiller)

(Councillor - Conseiller)

(Councillor - Conseiller)

(Councillor - Conseiller)

(Councillor - Conseiller)

(Councillor - Conseiller)

(Councillor - Conseiller)

(Councillor - Conseiller)

(Councillor - Conseiller)

FOR DEPARTMENTAL USE ONLY - RÉSERVÉ AU MINISTÈRE					
Expenditure - Dépenses	Authority (Indian Act Section Autorité (Article de la Loi sur les indiens)	Source of funds Source des fonds <input type="checkbox"/> Capital <input type="checkbox"/> Revenue Revenu	Expenditure - Dépenses	Authority (Indian Act Section Autorité (Article de la Loi sur les indiens)	Source of funds Source des fonds <input type="checkbox"/> Capital <input type="checkbox"/> Revenue Revenu
Recommending officer - Recommandé par			Recommending officer - Recommandé par		
Signature _____ Date _____			Signature _____ Date _____		
Approving officer - Approuvé par			Approving officer - Approuvé par		
Signature _____ Date _____			Signature _____ Date _____		



**Lac La Ronge  
Indian Band**

**Canada**

## Appendix 6 N-9 Trappers Block Resolution

**NORTHERN FUR CONSERVATION AREA  
N-9 FUR BLOCK: Stanley Mission, Grandmother's Bay and Brabant Lake  
SPRING TRAPPERS MEETING  
STANLEY MISSION BAND HALL**

***RESOLUTION***

May 29, 2009

**Misinipiy Land Use Plan**

**WHEREAS** the Government of Saskatchewan has proposed and has been working (drafting) on a land use plan inside the N-9 Fur Block boundaries of the Northern Fur Conservation Area; and

**WHEREAS** the N-9 Fur Block and Zones were established by the Government of Saskatchewan with the assistance of the elders and past trappers of these communities of that **time and age** and these boundaries are still respected by trappers; and

**WHEREAS** the Fur Block and Zones were established to promote and respect each trappers' trapping territory and to encourage conservation and respect of the environment; and

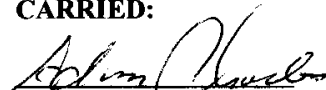
**WHEREAS** a Trapper's Council was established that consists of a chairperson, secretary and zone representatives. The mandate of this council is to promote trapping, conservation and respect among trappers within their respective territories. The Trappers Council meets twice a year, once in the spring and once in the fall, to discuss new and ongoing trapping issues; and

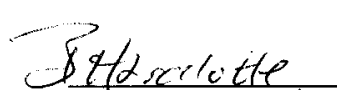
**NOW THEREFORE BE IT RESOLVED** that the Misinipiy Land Use Plan and its content does not over-rule the trappers of the N-9 Fur Block Trappers Council and their resolutions. This council was put in place to promote trapping and conservation that deals directly with land use (trap-line) issues

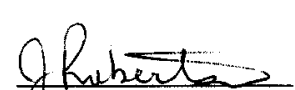
**MOVED BY:** Peter McKenzie

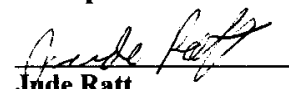
**SECONDED BY:** Solomon Hardlotte

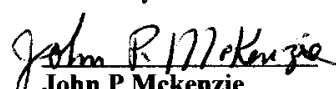
**CARRIED:**


  
Adam O. Charles  
Chairperson

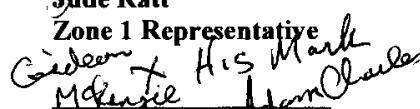
  
Brian Hardlotte  
Secretary Treasurer

  
John P. Roberts  
Zone 15 Representative

  
Jude Ratt  
Zone 1 Representative

  
John P. McKenzie  
Zone 17 Representative

  
Abel Charles  
Zone 16 Representative

  
Gideon McKenzie  
Zone 10 Representative

**From:** [Engagement Records](#)  
**To:** [Ty Roberts](#)  
**Subject:** RE: [\*\*]Missinipe Land Use Plan  
**Date:** Tuesday, June 18, 2024 10:30:00 AM  
**Attachments:** [image002.png](#)  
[image003.png](#)  
[image004.png](#)  
[DMC Properties vs Misinipiy Integrated Land Use Plan.pdf](#)

---

Hi Ty:

Thanks for this email and the information attached.

As I understand, our team committed to further review the alignment of Denison's project locations relative to the Misinipiy Integrated Land Use Plan (2012). We have carefully reviewed the information contained within the Misinipiy Integrated Land Use Plan (2012) that you have provided in this email correspondence. We can confirm that this is the same report and associated information we have used in relation to Lac La Ronge Indian Band since the beginning of the Wheeler River Project, in 2019. For complete transparency to you and the Committee, we have georeferenced Map 1 as shown on page 84 of the Misinipiy Integrated Land Use Plan (2012) and have attached it accordingly. The result shows that Phoenix, Wheeler River, and all of Denison's properties fall outside both the Misinipiy Planning Area, and the Lac La Ronge Indian Band Traditionally Occupied Territory, as depicted in Map 1 of the referenced document.

We are committed to working with LLRIB in a manner that reflects our presence in northern Saskatchewan and our commitment to Indigenous communities, and are happy to demonstrate our continued commitment to LLRIB through the increasing use of LLRIB-owned businesses, such as our recent switch to Athabasca Catering at the Wheeler River Property, as well as our substantive contribution to the Tony Cote Games in August and our contributions to the Heritage Fund – as had previously been identified to us as important by the Committee in relation to the Wheeler River Project.

I can confirm to you that we understand LLRIB's interest in formal relationships for activities which occur within LLRIB Traditionally Occupied Territory, and can commit to you that, should any future activities for Denison occur within this important area, we will proactively reach out to LLRIB to discuss accordingly.

Thank you again for inviting us to your meeting, and I hope you have a good week.

Carolanne

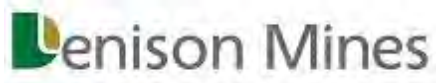
**Carolanne Inglis-McQuay**

Director, Corporate Social Responsibility

t: 306-652-8200 x 128 | f: 306-652-8202

345 4<sup>th</sup> Avenue South

Saskatoon, SK, Canada, S7K 1N3



TSX: DML | NYSE MKT: DNN

[www.denisonmines.com](http://www.denisonmines.com)

**From:** [Ty Roberts](#)  
**To:** [Engagement Records](#)  
**Cc:** [Ashley Carlson](#)  
**Subject:** RE: [\*\*]Missinipe Land Use Plan  
**Date:** Tuesday, June 18, 2024 11:56:34 AM  
**Attachments:** [image002.png](#)  
[image003.png](#)  
[image004.png](#)  
[image006.png](#)  
[image008.png](#)  
[image010.png](#)  
[image012.png](#)  
[image013.png](#)  
[image014.png](#)

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Hello Carolanne,

Thank you for your email. I understand that Denison is firm in its position that it is not operating within Lac La Ronge Indian Band's traditional territory. Section 4.6 of the MILUP discusses the boundary of the planning area and that future clarification of the boundaries of each respective nation will be needed. Unfortunately, the MILUP has not been reviewed or amended since it was finalized in 2012. So, we haven't been able to update our current boundary but have done so internally. Further, I confirm that LLRIB considers Key Lake and McArthur River within our traditional boundary and Denison's Wheeler River Project. I would also like to mention that LLRIB greatly appreciates Denison's contributions to LLRIB-owned businesses and community events. The intention of this conversation and request for a formal relationship through a collaboration or impact benefit agreement is to solidify the partnership between Denison and LLRIB. It is our intention to work with you and your organization to promote sustainable mining practices within LLRIB territory and northern Saskatchewan.

I'm looking forward to talking more about this as we build this relationship.

Regards,

**Ty Roberts, B.S.A, PAg.**  
**Reserve Lands Manager**

Lac La Ronge Indian Band

Lands & Resources

PO Box 480 • La Ronge, SK • S0J 1L0

306-425-2183

306-425-2170

[ty.roberts@llrib.ca](mailto:ty.roberts@llrib.ca)



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**From:** Engagement Records <engagement.records@denisonmines.com>

**Sent:** June 18, 2024 10:31 AM



**To:** Ty Roberts <ty.roberts@llrib.ca>  
**Subject:** RE: [\*]Missinipe Land Use Plan

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**EXTERNAL EMAIL: Be suspicious of content, links, and attachments.**

Hi Ty:

Thanks for this email and the information attached.

As I understand, our team committed to further review the alignment of Denison's project locations relative to the Misinipiy Integrated Land Use Plan (2012). We have carefully reviewed the information contained within the Misinipiy Integrated Land Use Plan (2012) that you have provided in this email correspondence. We can confirm that this is the same report and associated information we have used in relation to Lac La Ronge Indian Band since the beginning of the Wheeler River Project, in 2019. For complete transparency to you and the Committee, we have georeferenced Map 1 as shown on page 84 of the Misinipiy Integrated Land Use Plan (2012) and have attached it accordingly. The result shows that Phoenix, Wheeler River, and all of Denison's properties fall outside both the Misinipiy Planning Area, and the Lac La Ronge Indian Band Traditionally Occupied Territory, as depicted in Map 1 of the referenced document.

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Thank you again for inviting us to your meeting, and I hope you have a good week.

Carolanne

**Carolanne Inglis-McQuay**

Director, Corporate Social Responsibility

t: 306-652-8200 x 128 | f: 306-652-8202

345 4<sup>th</sup> Avenue South

Saskatoon, SK, Canada, S7K 1N3



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**From:** [Janna Switzer](#)  
**To:** [Carolanne Inglis-McQuay](#)  
**Subject:** Fwd: [\*\*]Response to Denison to YNLR letters dated 5 and 30 April 2024  
**Date:** Wednesday, June 19, 2024 2:52:32 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[YNLR response Denison"s letters of 5 and 30 Apr 24 FINAL.pdf](#)  
[Appendix 1 a.pdf](#)  
[Appendix 1 b.pdf](#)

---

Sent from my Bell Samsung device over Canada's largest network.

---

**From:** Bruce Hanbidge <bruce.hanbidge@yathinene.com>  
**Sent:** Wednesday, June 19, 2024 2:31:31 PM  
**To:** Janna Switzer <jswitzer@denisonmines.com>  
**Cc:** Garrett Schmidt <garrett.schmidt@yathinene.com>; Dereniwski, Jeff ENV <jeff.dereniwski@gov.sk.ca>; Scott, Ken ENV <Ken.Scott@gov.sk.ca>; Froess, Ryan <ryan.froess@cnscccsn.gc.ca>; Way, Jessica <jessica.way@cnscccsn.gc.ca>; Beaton, Dana <Dana.Beaton@cnscccsn.gc.ca>; Kwamena, Nana-Owusua <nana-owusua.kwamena@cnscccsn.gc.ca>; Pollock, Brady ENV <brady.pollock@gov.sk.ca>  
**Subject:** [\*\*]Response to Denison to YNLR letters dated 5 and 30 April 2024

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Jana:

Please find attached the subject letter and the attachments a. and b. to Appendix 1 of subject letter

Respectfully

**Bruce Hanbidge**  
Strategic Advisor | Ya'thi Néné Land and Resource Office

---



T: 306-477-1251  
M: 306-380-4457  
E: [bruce.hanbidge@yathinene.com](mailto:bruce.hanbidge@yathinene.com)  
A: 100-335 Packham Ave., Saskatoon, SK S7N 4S1  
[www.yathinene.ca](http://www.yathinene.ca)  
 

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19 June 2024

Janna Switzer  
Vice President Environment Sustainability & Regulatory  
345 4<sup>th</sup> Avenue South  
Saskatoon, SK S7K 1N3

Dear Janna:

This letter is in response to your emailed letters of 5 and 30 April 2024. However, as the letters between YNLR and Denison have become overlapping and potentially confusing to anyone that may review this correspondence, it is necessary to make some restatements for future clarity:

1. The basis for this discussion between Denison and YNLR:  
YNLR and Denison are in the iterative review period of the EIA process for Denison's Wheeler River project. CNSC has reviewed YNLR's initial comments on Denison's EIS and noted that a number of YNLR concerns are unaddressed by Denison's EIS. Therefore, CNSC has directed YNLR and Denison to undertake further discussion to try and resolve YNLR's concerns. In response, Denison has produced a revised EIS and has been in communication with YNLR with the intent of both parties cooperatively resolving YNLR concerns before the commencement of the public review stage of the EIA process for Denison's Wheeler River project.
2. The current status of the iterative review between Denison and YNLR is:
  - a. YNLR has provided two responses as part of the iterative stage we are in. Those responses are dated 02 February 2024 and 13 March 2024 (attached as Appendix 1);
  - b. Denison has sent two emails to YNLR, dated 5 and 30 April 2024 (attached as appendix 2) where they requested a further response from YNLR as to any changes that may have occurred in YNLR's responses as stated in their letters dated 02 February 2024 and 13 March 2024; and
  - c. the stated reason why Denison is asking for a further response from YNLR is because Denison wants to know if YNLR's responses to their EIS and revised EIS may have changed as a result of discussions in two recent meetings:
    - i. a meeting on 22 Feb 2024, between YNLR staff members and Denison staff members and their Ecometrix contractor to review YNLR responses to the Denison's EIS and revised EIS; and
    - ii. A meeting on 12 April 2024 of the YNLR Board of Directors.



Therefore, in light of the above restatements for future clarity: I can confirm that the YNLR responses to the Denison EIS and revised EIS as stated in their letters of 02 February 2024 and 13 March 2024 remain unchanged as of the date of this letter.

The balance of this letter will now address the points 1) to 5) in Denison's letter to YNLR of 5 April 2024. Denison's comments are in green, YNLR responses are in red

1) No further comment from YNLR – we note that Ref. #'s 375 to 378, 382, 385, 392, 395, and 398 to 438) have no further comment from YNLR related to these. We assume that our responses to these comments are deemed complete by YNLR and will proceed on that basis unless otherwise advised.

YNLR Response: I do not know what Denison means by the phrase “deemed complete”. YNLR's responses in their letters of 02 February 2024 and 13 March 2024 remain unchanged and YNLR's concerns in those responses remain unaddressed.

2) Collaboration on Monitoring Plans and Programs (Ref. #'s 379, 380, 381, 383, 384, 386, 387, 388, 389, 390, 393, 394, 396, 397): As an outcome of our meeting on February 22, 2024, where Denison and YNLR discussed YNLR's desire to be involved in monitoring plan development, Denison provided a follow up email and document from the draft Wheeler River Environmental Impact Statement (EIS) called Summary of Monitoring. The document outlines the conceptual monitoring program for all and stages of the project and how they tie to each Valued Component assessed in the EIS. Denison further committed, in that email, to work with the YNLR in a manner that has been requested of us, which includes sharing further information about monitoring plans as they are developed through the permitting and licensing process. Also in the February 22 meeting, it was noted by YNLR's consultants that the areas of immediate interest were surface and groundwater, aquatics, wildlife and Woodland Caribou monitoring. Denison acknowledged the request made in the meeting and further acknowledges the request in the March 13<sup>th</sup> email, where all monitoring plans have been requested by YNLR. As noted in the meeting, the detailed monitoring plans are not yet developed given the stage of the Project in the regulatory process. Given the number of plans, procedures and work instructions that will be developed, it would be helpful for YNLR to identify which areas monitoring are of interest from which we can then together establish a process and discuss further details about next steps.

YNLR response: While encouraging, point 2) still does not address YNLR's concerns as stated in their responses in their letters of 02 February 2024 and 13 March 2024. From the beginning, of their review of Denison's EIS and revised EIS YNLR, has been consistent in their request to be “involved in all monitoring and other plans at a conceptual level when experimental design and methodologies are being developed”. Denison has been consistent in their responses “to share further information about plans as they are developed”. The Denison response, explicitly, does not address YNLR's concerns stated in



YNLR's letters of 02 February 2024 and 13 March 2024. Hence these concerns remain. YNLR interprets the notion of 'sharing' information after its been developed as being non-collaborative and we prefer being 'involved' in the program/plan design and development.

- 3) Confidence in the freeze-wall technology (Ref. # 381): This comment received from YNLR on March 13, 2024, highlight YNLR's perspective on groundwater monitoring requirements in association with the freeze wall. This is accompanied by doubts of freeze wall efficacy and the manner in which this was analyzed, in which YNLR has stated, "independent assessments are required." To this end, Denison would be pleased to coordinate a meeting between YNLR, and the technical expert Denison utilized to design the freeze wall and confirm its effectiveness for the geological and hydrogeological conditions for an ISR mine at Wheeler River. Greg Newman from Newman's Geotechnique is a leading expert on the currently deployed freeze wall technology used at Cigar Lake and McArthur River. Mr. Newman would be able to respond to technical questions posed by YNLR about the freeze-wall technology, which could be the most effective means for YNLR to seek information about the areas of concern with respect to the freezing technology.

YNLR Response: YNLR appreciates the offer of Denison's Technical expert to brief YNLR on their concerns with freeze-wall technology. Unfortunately, Denison's freeze-wall technical expert is no more independent that Denison's Cumulative Effects technical expert, that YNLR staff spoke to on 22 Feb 2024. Hence, YNLR's concerns as stated in their response remains. Going forward on this item, YNLR will engage with CNSC for access to an independent technical expert on freeze-wall technology.

- 4) Caribou Offsets, Preliminary Decommissioning Plan (Ref. # 380, 387, 388, 389): YNLR has shared comments with respect to Woodland Caribou offsets, including those related to the definition of offsets, timing, and mitigation measures as part of present-day mitigation measures for the Project, and should be applied in advance of decommissioning. YNLR has also requested to see the pre-decommissioning monitoring plan for containment releases. As an outcome of our meeting on February 22, 2024, Denison provided a follow up document called Summary of Monitoring which outlines the Project's commitments for monitoring programs for all phases of the project from pre-construction to post decommissioning. Details of monitoring will be developed prior to, and applicable for each phase of the Project, including decommissioning. Denison has also provided YNLR with the Preliminary Decommissioning Plan, of which Denison offers to include YNLR in discussions in as more details are developed for that plan. Further, as part of the February 22, 2024 email from Denison to YNLR, Denison included the Draft Caribou Management Framework, which outlines mitigation and restorative measures within the Provincial government framework. We welcomed feedback on the Draft Caribou Management Framework and remain open and willing to receive feedback on this plan.





**YNLR Response:** YNLR has provided its responses on caribou offsets and other aspects of caribou restoration and mitigation planning in the responses contained in their letters of 02 February 2024 and 13 March 2024. The concerns expressed in those responses remain valid and unaddressed.

YNLR did request from Denison, in their meeting of 22 Feb 2024, specific information as to where their caribou offsets are located and what was the information and methodology used to determine these offsets, however, Denison declined to provide this information. Additionally, YNLR is also on record with CNSC and Denison (see attached letters at appendix 3) that there is a divergence of opinion of the results of the YNLR and Denison Cumulative Effects analysis. Given that the results of the CE analysis is the basis for how much land, suitable for caribou, is required for offsetting: YNLR's interest in the details of Denison's caribou offset plan is a valid concern (see Appendix 3 for a review of YNLR's GIS based Method for Assessing Cumulative Environmental Effects).

Respecting preliminary decommissioning plans: decommissioning plans are based on the extent to which restoration and offsetting are carried out prior to decommissioning, therefore while their receipt from Denison is appreciated any conclusions that can be determined from this plan is incomplete without the former requested information on offset plans. Therefore, YNLR concerns stated in their comments remain valid and unaddressed.

- 5) **Traditional Knowledge and Groundwater Monitoring (Ref. # 381):** With respect to Denison's use of such a statement in relation a groundwater monitoring plan, YNLR has shared their perspective on traditional knowledge, stating that "TK will have no input into ground water contamination until health risks are noted decades or centuries later." To this end, Denison would like to clarify that the current rigorous groundwater modelling does not indicate there will be groundwater contamination nor health risks from the Project. The groundwater monitoring program will be robust and meet all regulatory standards for the type of mining proposed for the Project. Further, Denison would like to note that consideration of local and traditional knowledge in all facets of the Wheeler River Project will be guided by local and traditional knowledge holders to the extend they wish to share information in relevant areas. Traditional knowledge may or may not be relevant to groundwater monitoring results, but it may have relevance to the considerations in the planning for such monitoring, as an example.

**YNLR Response:** Denison's above statement in point 5) is a reassertion of their comment addressed by YNLR in their letters of 02 February 2024 and 13 March 2024. Therefore, YNLR's concerns as to their involvement in monitoring, remain valid and unaddressed.

This letter addresses Denison's requests in their letters of 5 and 30 April 2024, and it concludes YNLR's responses to Denison's EIS and revised EIS. For greater certainty: YNLR's concerns, as stated in their letters to Denison dated 02 February 2024 and 13 March 2024 and reiterated and further clarified in this letter, remain unaddressed.



Concerning further discussion on YNLR's concerns with Denison's EIS and revised EIS: YNLR remains at the table and responsive; if Denison has any further comments of substance to address YNLR concerns; or, if there is any further direction from CNSC in this matter.

Respectfully

Bruce Hanbidge  
Strategic Advisor  
Ya'thi Néné Land and Resource Office



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Appendix 1: YNLR emails to Denison dated 02 February 2024 and 13 March 2024

Appendix 2: Denison to YNLR emails dated 5 and 30 April 2024

Appendix 3: A GIS based Method for Assessing Cumulative Environmental Effects within the Athabasca Basin of Nuhenéné

cc:

Garrett Schmidt, Exec Dir, Yathinene Lands and Resource Office

Jeff Dereniwski, Senior Environmental Assessment Administrator, Applications, Environmental Assessment and Stewardship Branch, Saskatchewan Ministry of Environment

Dr Ken Scott, Senior Environmental Assessment Administrator, Applications, Environmental Assessment and Stewardship Branch, Saskatchewan Ministry of Environment

Ryan Froess, Senior Advisor/Indigenous and Stakeholder Relations Division, Canadian Nuclear Safety Commission



Jessica Way, Environmental Assessment Officer, Canadian Nuclear Safety Commission  
Dana Beaton, Director General, Directorate of Environmental and Radiation Protection and  
Assessment, Canadian Nuclear Safety Commission, [Dana.Beaton@cnsc-ccsn.gc.ca](mailto:Dana.Beaton@cnsc-ccsn.gc.ca)  
Nana Kwamena, Director, Environment Review Division, Canadian Nuclear Safety  
Commission [nana-owusua.kwamena@cnsc-ccsn.gc.ca](mailto:nana-owusua.kwamena@cnsc-ccsn.gc.ca)  
Brady Pollock, Executive Director, Environmental Assessment and Stewardship Branch,  
Saskatchewan Ministry of Environment, Email: [brady.pollock@gov.sk.ca](mailto:brady.pollock@gov.sk.ca)

**From:** [Janna Switzer](#)  
**To:** [Bruce Hanbidge](#)  
**Cc:** [Garrett Schmidt](#); [Dereniowski, Jeff ENV](#); [Scott, Ken ENV](#); [Froess, Ryan](#); [Way, Jessica](#); [Beaton, Dana](#); [Kwamena, Nana-Owusua](#); [Pollock, Brady ENV](#)  
**Subject:** RE: [\*\*]Response to Denison to YNLR letters dated 5 and 30 April 2024  
**Date:** Friday, June 28, 2024 9:22:32 AM  
**Attachments:** [image005.png](#)  
[image006.png](#)  
[image007.png](#)  
[20240628-LTR-DEN\\_YNLR-ResponseJune19YNLRLtr.pdf](#)

---

Good day Bruce,

Please see Denison's attached letter in response to the June 19, 2024 correspondence from YNLR.

Kindly,

Janna

**Janna Switzer**

Vice President, Environment Sustainability & Regulatory

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Bruce Hanbidge  
Strategic Advisor  
Ya'thi Néné Land and Resource Office  
335 Packham Avenue Unit 100  
Saskatoon, SK S7N 4S1

June 28, 2024

**Re: Response to Ya'thi Néné Land and Resource Office Letter Dated June 19, 2024**

Dear Mr. Hanbidge,

We write in response to your letter dated June 19, 2024, and the ongoing engagement between Denison Mines Corp. (Denison) and the Ya'thi Néné Land and Resource Office (YNLR) in respect of the Wheeler River Project (the Project) and its draft Environmental Impact Statement (EIS).

We are thankful for your comments on the EIS and we are encouraged by the continued engagement between the YNLR and Denison. Denison looks forward to advancing its relationship with the YNLR and remains committed to developing the Project in a manner respectful of Athabasca Denesųliné's Traditional Knowledge and values.

In order to place our response in context, below we set out an overview of the history of engagement between Denison and the YNLR in respect to the EIS. We then respond to the YNLR's most recent letter dated June 19, 2024.

**Overview of EIS Engagement between Denison and YNLR**

In November 2022, the Canadian Nuclear Safety Commission (CNSC) initiated the technical review of the EIS. YNLR was invited to participate in the review process and on March 4, 2023, YNLR sent a list of issues and concerns in relation to the EIS to the CNSC. These comments were shared with Denison, following which Denison met with YNLR on July 18, 2023 to discuss concerns raised about the EIS.

On July 20, 2023, the YNLR sent Denison a letter requesting Denison provide written responses to the comments and questions you raised in the YNLR's March 4, 2023, response.

*YNLR's March 2023 comments and Denison's response*

Denison worked diligently to respond to the YNLR's request for a written response to your March 4, 2023, comments. On November 23, 2023, Denison sent the YNLR a written response which addressed each of the sixty-four comments provided by the YNLR. Further, Denison revised its draft EIS to address the concerns raised by the YNLR, as appropriate.



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The following is a summary of key issues as provided in the YNLR's March 4, 2023, comments, and Denison's November 23, 2023, response and revised draft EIS.

The YNLR commented on the Project's utilization of water and expressed concern in relation to its potential effect on the local stream flow rate, which was estimated to be at less than three percent. Denison responded to this concern by revising the EIS and committing to conduct hydrological monitoring in the Project area.

The YNLR commented that predictions for Project effects may fall short and, as a result, there is a need for close collaboration with Indigenous Peoples. Denison committed to ongoing engagement with Indigenous Peoples, and explained that the details of follow-up and monitoring plans will be prepared in consultation with Indigenous Peoples.

The YNLR expressed apprehension in respect to fish habitat and health and you noted that the YNLR expects to be involved in the monitoring of fish resources. Denison committed to collaborating with Indigenous communities in respect to environmental monitoring regimes. Denison noted it will share information about fish and fish habitat and invited the YNLR to participate in the development of a monitoring program.

You shared that the YNLR was disappointed that Athabasca Denesųłiné communities were not considered to be an Indigenous Community of Interest in the EIS, and that Hatchet Lake First Nation – a member of the Athabasca Denesųłiné communities – is located near the Project. Denison responded by acknowledging Hatchet Lake First Nation has the potential for established Indigenous and Treaty Rights proximal to the Project and, as a result, amended the EIS to recognize Hatchet Lake First Nation as an Indigenous Community of Interest.

Additionally, the YNLR expressed concern in respect to the Project's potential effects on the local Woodland Caribou population. In response, Denison drafted a memorandum for the YNLR which responded to the YNLR's concerns and detailed Denison's caribou mitigation plan. Further, Denison stated its commitment to continue to engage with the YNLR on this topic.

In light of the exchange summarized above, Denison considers that it provided a comprehensive, good faith response to the matters raised by YNLR in March 2023.

#### *YNLR's February and March 2024 comments, and Denison's response*

On February 2, 2024, the YNLR provided Denison with a comment letter responding to Denison's November 23, 2023, written responses.

A meeting was held on February 22, 2024, in which Denison and the YNLR discussed Denison's November 23, 2023, responses and outstanding YNLR concerns in respect to the EIS. During the meeting, you shared that it is YNLR's desire to be involved in all monitoring plan development in the permitting and licensing processes. In response to this request, Denison shared documentation outlining, at a conceptual level, the proposed monitoring program for all stages of the Project.





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Additionally, on February 23, 2024, Denison sent an email to the YNLR committing to work with the YNLR in the manner you request, which included a commitment to share information about monitoring plans as they develop throughout the permitting and licensing processes.

On March 13, 2024, the YNLR provided Denison with additional comments on Denison's November 23, 2023, EIS responses. Denison responded to these comments on April 5, 2024. A summary of this exchange is as follows.

Denison noted that no further comments were provided for reference nos. 375-378, 382, 385, 392, 395, and 398-438, and Denison indicated that it therefore assumed that Denison's responses, provided on November 23, 2023, could be considered as complete and satisfactory unless otherwise advised.

The YNLR commented about freeze wall efficacy and expressed dissatisfaction in the manner it was analyzed. The YNLR requested an independent assessment. Denison responded by offering to coordinate a meeting between the YNLR and the qualified professional Denison utilized to design the freeze wall.

The YNLR commented that Traditional Knowledge will have no input into groundwater contamination planning until health risks are noted decades or centuries later. Denison clarified that current groundwater modelling did not indicate there would be groundwater contamination or health risks from the Project, and further affirmed its commitment to consider local and Traditional Knowledge in all facets of the Project to the extent local knowledge holders wish to share such information. Additionally, Denison committed to involving the YNLR in the groundwater monitoring plans.

The YNLR continued to express concern with respect to the Project's potential impact on the local Woodland Caribou population and you reiterated the YNLR's desire to be involved in the collaboration and design of monitoring programs. Denison responded by again reaffirming its commitment to work with the YNLR in the manner the YNLR requests. Denison included this commitment in its Commitment Table submitted to the CNSC.

On April 12, 2024, Denison met with the YNLR's board of directors.

On April 30, 2024, Denison emailed the YNLR to follow up on its April 5, 2024, responses and to note that many of the comments were discussed at the April 12, 2024, meeting between Denison and the YNLR's board of directors.

On June 19, 2024, Denison received a letter from the YNLR that explained the YNLR's concerns, as expressed in your February 2, 2024, and March 13, 2024, letters, remain unchanged.

Denison was surprised by this response as it had endeavoured to address the issues raised by the YNLR and make changes to the EIS and the Project to accommodate those concerns.

## **Letter from YNLR dated June 19, 2024**

The YNLR's June 19, 2024, letter responds to Denison's April 5, 2024, EIS responses and its April 30, 2024, email. The responses below are categorized in the same manner as the YNLR's June 19, 2024, letter.

1) There have been no further comments from the YNLR on EIS reference nos. 375-378, 382, 385, 392, 395, and 398-438. As such, Denison assumes that its responses provided on November 23, 2023, are satisfactory and are therefore deemed complete. You responded indicating that the YNLR's comments in letters dated February 2, 2024, and March 13, 2024, remain unchanged and unaddressed.

Denison has provided a comprehensive response to each of YNLR's comments in kind and has sought to address your concerns. Denison has stated its commitment to work with the YNLR and to collaboratively develop monitoring plans. Denison remains committed to engaging with the YNLR on these concerns. As the YNLR has provided no further comments to Denison's responses of November 23, 2023, Denison is unclear on how to address the comments in a way that is satisfactory for the YNLR.

2) Collaboration on Monitoring Plans and Programs (EIS reference nos. 379, 380, 381, 383, 384, 386, 387, 388, 389, 390, 393, 394, 396, 397). You expressed the YNLR's desire to be involved in the program design and development of all monitoring and other plans at a conceptual level when experimental design and methodologies are being deployed, stating that, "YNLR interprets the notion of 'sharing' information after its been developed as being non-collaborative and we prefer being 'involved' in the program/plan design and development."

Denison feels it is important to clarify the processes related to the development of various monitoring programs for the Project and the manner in which involvement can occur with interested Indigenous nations, such as those represented by the YNLR. As a starting point, the EIS contains conceptual level information for various monitoring plans associated with the Project, commensurate with the requirements for an environmental assessment, the primary basis of which is informed by regulatory guidance and requirements. The conceptual monitoring plans also take into account any input received through engagement activities, where appropriate. As the Project advances into permitting and licensing, the conceptual monitoring plans evolve into detailed monitoring plans, the designs of which must adhere to Provincial and Federal regulatory requirements but can be further enhanced by the involvement of the YNLR and other Indigenous communities. Denison provided the summary of monitoring and follow-up programs (Section 16 of the EIS) to the YNLR as an outcome of the February 22, 2024 meeting, with the request to identify those items of further interest to the YNLR to enable the co-development of a path forward.

It is Denison's perspective that, in order to advance a meaningful process to further involve the YNLR in the development of the monitoring plans, it is necessary for Denison to understand the key areas of interest to the YNLR. This was the basis of Denison's request whereby the YNLR identify a starting point for this exchange, based on the conceptual monitoring programs provided in the EIS. In the absence of specific feedback on the conceptual monitoring plans/programs, Denison re-iterates its commitment to providing the YNLR with the detailed monitoring plans, as developed through the permitting and licensing process, for input and collaboration as the Project advances.

3) Confidence in freeze-wall technology (EIS reference no. 381). The YNLR responded to Denison's offer to meet with its qualified professional utilized to design the freeze wall with your statement that this professional is not sufficiently independent to meet your standards and, going forward, the YNLR would engage with the CNSC for access to an independent technical expert on freeze-wall technology.

Denison respects the YNLR's desire to seek other expertise. In any event, should the YNLR wish to meet with the qualified professional utilized to design the freeze wall, Denison would be happy to facilitate.

4) Caribou Offsets, Preliminary Decommissioning Plan (EIS reference nos. 380, 387, 388, 389). You explained the YNLR's request for specific information as to where caribou offsets are located, and the source of information and methodology used to determine these offsets. You explained that the YNLR cannot provide feedback on decommissioning plans without the former requested information in relation to offset plans.

Denison is committed to the development of a caribou mitigation and offsetting plan for the Project. This plan will be developed ahead of construction and independent of the development of the Project's detailed decommissioning plan.

Denison provided the YNLR with a draft Caribou Management Framework which outlines mitigation and restorative measures within the Provincial Government framework. Denison continues to remain open to feedback from the YNLR on the draft Caribou Management Framework. Further, Denison's previous offer to involve the YNLR in discussions with respect to the development of the decommissioning plans still stands. Decommissioning plans at this stage are conceptual as outlined in the EIS and will continue to be refined through each phase of the Project as it progresses.

5) Traditional Knowledge and Groundwater Monitoring (EIS reference no. 381). You stated that your concerns as to the YNLR's involvement in respect of the groundwater monitoring program and the application of Traditional Knowledge remain unaddressed.

Denison has offered to involve the YNLR in groundwater monitoring plans and notes that the timeline and detail for the development of these plans extends beyond the environmental



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assessment process. Denison remains open to the YNLR's involvement in groundwater monitoring plans now and in the future. Further, Denison reiterates that it will continue to consider local and Traditional Knowledge in all facets of the Project to the extent holders of such knowledge wish to share information with us.

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Denison has endeavored to address your responses in a comprehensive manner and, as always, remains prepared to discuss matters further. YNLR views have and will continue to be taken into consideration during the Project's environmental assessment and Denison thanks you for your input in this important process.

We look forward to working with you further.

Yours truly,

A handwritten signature in black ink, appearing to read 'Janna Switzer'.

Janna Switzer  
 Vice President, Environment Sustainability and Regulatory

cc: Garrett Schmidt, Executive Director, Ya'thi Néné Lands and Resource Office  
 Jeff Dereniwski, Senior Environmental Assessment Administrator, Applications, Environmental Assessment and Stewardship Branch, Saskatchewan Ministry of Environment  
 Dr. Ken Scott, Senior Environmental Assessment Administrator, Applications, Environmental Assessment and Stewardship Branch, Saskatchewan Ministry of Environment  
 Ryan Froess, Senior Advisor/Indigenous and Stakeholder Relations Division, Canadian Nuclear Safety Commission  
 Jessica Way, Environmental Assessment Officer, Canadian Nuclear Safety Commission  
 Dana Beaton, Director General, Directorate of Environmental and Radiation Protection and Assessment, Canadian Nuclear Safety Commission - [Dana.Beaton@cnsc-ccsn.gc.ca](mailto:Dana.Beaton@cnsc-ccsn.gc.ca)  
 Nana Kwamena, Director, Environment Review Division, Canadian Nuclear Safety Commission - [nana-owusua.kwamena@cnsc-ccsn.gc.ca](mailto:nana-owusua.kwamena@cnsc-ccsn.gc.ca)  
 Brady Pollock, Executive Director, Environmental Assessment and Stewardship Branch, Saskatchewan Ministry of Environment - [brady.pollock@gov.sk.ca](mailto:brady.pollock@gov.sk.ca)

**From:** [Carolanne Inglis-McQuay](#)  
**To:** [Ty Roberts](#)  
**Cc:** [Ashley Carlson](#)  
**Subject:** RE: [\*\*]Missinipe Land Use Plan  
**Date:** Friday, June 28, 2024 1:45:00 PM  
**Attachments:** [image006.png](#)  
[image008.png](#)  
[image010.png](#)  
[image016.png](#)  
[image017.png](#)  
[image018.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)

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Hi Ty:

To begin with, I want to start by apologizing to you for not replying to this email sooner. It was only recently noticed that you sent your response to an email address from which the message was sent (which was not my own, which is my error) and as such, the response went back to that original sending email. Sorry about that.

Thanks for your note.

I think it is important to clarify that the only information we have had to date with respect to Lac La Ronge Indian Band's traditional territory has been from the 2012 MILUP, and thus it has been the only information we could therefore use. From my perspective, this was further affirmed when you resent me this document as an outcome of the June 12, 2024 meeting with Denison. It perhaps might be more fair to characterize our position on this matter as neutral, rather than 'firm', because we had access only to the information that was publicly available to us and / or directly provided to us over the years we have been working together.

If LLRIB considers the Wheeler River Project to be within their traditional territory, we accept that. We also accept that we are in the traditional territory of many other Indigenous communities and nations. We would welcome LLRIB sending through any updated traditional territory map, at whatever point in time it becomes available.

Denison has clear criteria we apply when commencing the process of negotiating impact benefit agreements with Indigenous communities or nations, which is related to information from an Indigenous community or nation that provides a clear link between the potential for our Project to adversely impact the collective undertaking of Rights by an Indigenous community. If LLRIB has specific information that would assist Denison in better understanding the potential for LLRIB to meet this criteria, we would be happy to receive it at any time and discuss further.

Irrespective any outcomes related to the above, Denison remains committed to continuing its efforts to be positively responsive to the areas of identified interest by LLRIB in relation to business development and / or community investment and we are always happy to discuss further ways to enhance these efforts.

Sincerely,

Carolanne

**Carolanne Inglis-McQuay**

Director, Corporate Social Responsibility

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**From:** [Ty Roberts](#)  
**To:** [Carolanne Inglis-McQuay](#)  
**Cc:** [Ashley Carlson](#)  
**Subject:** RE: [\*\*]Missinipe Land Use Plan  
**Date:** Friday, June 28, 2024 1:49:15 PM  
**Attachments:** [image005.png](#)  
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[image004.png](#)  
[image019.png](#)  
[image020.png](#)

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Hi Carolanne,

No worries about the email, and thank you for this update. I will send this message to our committee and look forward to working with you and your colleagues at Denison.

Have a great long weekend!

Regards,

**Ty Roberts, B.S.A, PAg.**

**Reserve Lands Manager**

Lac La Ronge Indian Band

Lands & Resources

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**From:** [Gaylene Poulin](#)  
**To:** [blaroque@mns.work](mailto:blaroque@mns.work)  
**Subject:** Notice of Provincial Environmental Assessment for the Wheeler River Project and the Government of Saskatchewan's Duty to Consult with MN-S  
**Date:** Friday, November 8, 2024 3:53:47 PM  
**Attachments:** [Outlook-5i2j5bml](#)

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In the spirit of transparency and collaboration, we are writing to provide you early notice that the Government of Saskatchewan's provincial environmental assessment (EA) for the Wheeler River Project (the Project) advanced on November 7, 2024.

### **Provincial EA Next Steps**

1. Continue the Government of Saskatchewan's duty to consult with MN-S for the Project, and summarize the procedural aspects of consultation which were assigned to Denison Mines Corp (Denison) as part of the provincial EA under *The Environmental Assessment Act* (Saskatchewan)
2. Share a link to the EIS online and instructions for submission of comments
3. Notify MN-S of its eligibility for a \$10,000 Fast Track Grant under the Consultation Participation Fund for this activity, and with the timeframe for MN-S comments, which will be requested by December 9, 2024.

For reference, if you require a copy of the correspondence sent in 2019 when the duty to consult was formally initiated for the Project, please contact us and we would be happy to forward. The 2019 letter explains the roles and responsibilities of Denison, and SK-ENV, in the duty to consult process for the provincial EA.

In conjunction with the confirmation of the duty to consult record, SK-ENV will be advertising through print and radio, to notify the public about a 30-day review and comment period on the EIS. From November 9 to December 9, 2024, the EIS will be posted on the SK-ENV website at:

<https://publications.saskatchewan.ca/#/categories/4233>. **For more information, contact Jeff Dereniwski at the Saskatchewan Ministry of Environment at 306-787-5791.**

### **Federal EA Update**

Denison also continues to advance the federal EA under the Canadian Environmental Assessment Act, 2012. Denison has worked to coordinate the provincial and federal environmental assessments in parallel, to achieve one single EIS that meets the requirements for both. Throughout 2024, Denison has worked with the Canadian Nuclear Safety Commission (CNSC) to resolve federal information requests. Denison is targeting submission of the final EIS for the federal EA by the end of 2024.

Denison will continue to keep MN-S closely informed through future regulatory phases of the Project, including licensing by the CNSC under the Nuclear Safety and Control Act. We appreciate your time and look forward to discussions on the Wheeler River Project as we move forward. Please do not hesitate to contact us if you have any questions.

On behalf of, Janna Switzer,  
Vice President, Environment, Sustainability and Regulatory  
Denison Mines Corp.

**Gaylene Poulin**

Community Engagement Lead

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November 1, 2024

English River First Nation  
c/o Chief Alfred Dawatsare and Council  
PO Box 30  
Patuanak, SK, S0M 2H0

**Re: Provincial Environmental Assessment for the Wheeler River Project and the Government of Saskatchewan's Duty to Consult with English River First Nation**

Dear Chief Dawatsare,

We hope this letter finds you well. We are writing to provide you early notice that the Government of Saskatchewan's provincial environmental assessment (EA) for the Wheeler River Project (the Project) is advancing on November 9, 2024. We would like to extend our sincere gratitude to the English River First Nation (ERFN) for your valuable feedback and input during throughout the process. Your participation has been a key cornerstone to advancing the EA in a meaningful way.

**Provincial EA Next Steps**

**On November 9, 2024, the Saskatchewan Ministry of Environment (SK-ENV) will be contacting you to,**

1. Continue the Government of Saskatchewan's duty to consult with ERFN for the Project, and summarize the procedural aspects of consultation which were assigned to Denison Mines Corp (Denison) as part of the provincial EA under *The Environmental Assessment Act* (Saskatchewan),
2. Share a link to the EIS online and instructions for submission of ERFN comments,
3. Notify ERFN of its eligibility for a \$10,000 Fast Track Grant under the Consultation Participation Fund for this activity, and with the timeframe for ERFN comments, which will be requested by **December 9, 2024**.

For reference, if you require a copy of the correspondence sent to ERFN and Denison in 2019 when the duty to consult was formally initiated for the Project, please contact us and we would be happy to forward. The 2019 letter explains the roles and responsibilities of Denison, SK-ENV and ERFN, in the duty to consult process for the provincial EA.

In conjunction with the confirmation of the duty to consult record, SK-ENV will be advertising through print and radio, to notify the public about a 30-day review and comment period on the EIS. From November 9 to December 9, 2024, the EIS will be posted on the SK-ENV website at: <https://publications.saskatchewan.ca/#/categories/4233>. For more information, contact Jeff Dereniwski at the Saskatchewan Ministry of Environment at 306-787-5791.

**Federal EA Update**

Denison also continues to advance the federal EA under the *Canadian Environmental Assessment Act, 2012*. Denison has worked to coordinate the provincial and federal environmental assessments in parallel, to achieve one single EIS that meets the requirements for both. Throughout 2024, Denison has worked with the Canadian Nuclear Safety Commission (CNSC) to resolve federal information requests. Denison hopes to advance the federal EA with submission of a final EIS in the near future.

Denison will continue to keep ERFN closely informed through future regulatory phases of the Project, including licensing by the CNSC under the *Nuclear Safety and Control Act*.

We appreciate your continued support of the Wheeler River Project and look forward to further collaboration as we move forward. Please do not hesitate to contact us if you have any questions or need assistance.

Sincerely,



Janna Switzer

Vice President, Environment, Sustainability and Regulatory

Cc: David Cates, Brianne England (Denison)

Ken Scott, Candace Piper, Brady Pollock, (Saskatchewan Ministry of Environment)

Nana-Owusua Kwamena, Jessica Way, Rain Noakes (CNSC)

Cheyenna Hunt (ERFN)



Denison Mines Corp.  
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November 1, 2024

Kineepik Métis Local #9  
c/o Mike Natomagan, President  
PO Box 166  
Pinehouse Lake, SK, S0J 2B0

**Re: Provincial Environmental Assessment for the Wheeler River Project and the Government of Saskatchewan's Duty to Consult with Kineepik Métis Local #9**

Dear Mike,

We hope this letter finds you well. We are writing to provide you early notice that the Government of Saskatchewan's provincial environmental assessment (EA) for the Wheeler River Project (the Project) is advancing on November 9, 2024. We would like to extend our sincere gratitude to Kineepik Métis Local #9 for your valuable feedback and input during throughout the EA. Your participation has been a key cornerstone to advancing the process in a meaningful way.

**Provincial EA Next Steps**

On November 9, 2024, the Saskatchewan Ministry of Environment (SK-ENV) will be contacting you,

1. Continue the Government of Saskatchewan's duty to consult with KML for the Project, and summarize the procedural aspects of consultation which were assigned to Denison Mines Corp (Denison) as part of the provincial EA under *The Environmental Assessment Act* (Saskatchewan),
2. Share a link to the EIS online and instructions for submission of KML comments,
3. Notify KML of its eligibility for a \$10,000 Fast Track Grant under the Consultation Participation Fund for this activity, and with the timeframe for KML comments, which will be requested by **December 9, 2024**.

For your reference, attached with this letter is a copy of correspondence sent to ERFN and Denison in 2019 when the duty to consult was formally initiated for the Project. The 2019 letter explains the roles and responsibilities of Denison, SK-ENV and KML, in the duty to consult process for the provincial EA.

In conjunction with the confirmation of the duty to consult record, SK-ENV will be advertising through print and radio, to notify the public about a 30-day review and comment period on the EIS. From November 9 to December 9, 2024, the EIS will be posted on the SK-ENV website at: <https://publications.saskatchewan.ca/#/categories/4233>. For more information, contact Jeff Dereniwski at the Saskatchewan Ministry of Environment at 306-787-5791.



**Federal EA Update**

Denison also continues to advance the federal EA under the *Canadian Environmental Assessment Act, 2012*. Denison has worked to coordinate the provincial and federal environmental assessments in parallel, to achieve one single EIS that meets the requirements for both. Throughout 2024, Denison has worked with the Canadian Nuclear Safety Commission (CNSC) to resolve federal information requests. Denison hopes to advance the federal EA with submission of a final EIS in the near future.

Denison will continue to keep KML closely informed through future regulatory phases of the Project, including licensing by the CNSC under the *Nuclear Safety and Control Act*.

We appreciate your continued support of the Wheeler River Project and look forward to further collaboration as we move forward. Please do not hesitate to contact us if you have any questions or need assistance.

Sincerely,



Janna Switzer

Vice President, Environment, Sustainability and Regulatory

Cc: David Cates, Brianne England (Denison)

Ken Scott, Candace Piper, Brady Pollock, (Saskatchewan Ministry of Environment)

Nana-Owusua Kwamena, Jessica Way, Rain Noakes (CNSC)

Damien George (KML)



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November 1, 2024

Lac La Ronge Indian Band  
PO Box 480  
La Ronge, SK, S0J 1L0

**Re: Advance Notice Provincial Environmental Assessment for the Wheeler River Project**

In the spirit of transparency and collaboration, we are writing to provide you early notice that the Government of Saskatchewan's provincial environmental assessment (EA) for the Wheeler River Project (the Project) is advancing on **November 9, 2024**.

**Provincial EA Next Steps**

The project is undergoing an environmental impact assessment under The Environmental Assessment Act.

The public is invited to provide comments on the environmental impact statement and government's technical review comments, which incorporates the requirements of the provincial environmental assessment process and identifies the key issues and studies addressed during the assessment.

Traditional knowledge and local information on the potential impacts of this project are welcomed and valued.

Documentation on the proposed project is on the Government of Saskatchewan's website at <https://publications.saskatchewan.ca/#/categories/4233>. For more information, contact Jeff Dereniwski at the Saskatchewan Ministry of Environment at 306-787-5791

**Federal EA Update**

Denison also continues to advance the federal EA under the *Canadian Environmental Assessment Act, 2012*. Denison has worked to coordinate the provincial and federal environmental assessments in parallel, to achieve one single EIS that meets the requirements for both. Throughout 2024, Denison has worked with the Canadian Nuclear Safety Commission (CNSC) to resolve federal information requests. Denison hopes to advance the federal EA with submission of a final EIS in the near future.

Denison will continue to keep you closely informed through future regulatory phases of the Project, including licensing by the CNSC under the Nuclear Safety and Control Act.

We appreciate your time and look forward to discussions on the Wheeler River Project as we move forward. Please do not hesitate to contact us if you have any questions.

Sincerely,



Janna Switzer

Vice President, Environment, Sustainability and Regulatory

Cc: David Cates, Brianne England (Denison)

Ken Scott, Candace Piper, Brady Pollock, (Saskatchewan Ministry of Environment)

Nana-Owusua Kwamena, Jessica Way, Rain Noakes (CNSC)



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November 1, 2024

Meadow Lake Tribal Council  
8003 Flying Dust Reserve  
Meadow Lake, SK, S9X 1T8

**Re: Advance Notice Provincial Environmental Assessment for the Wheeler River Project**

In the spirit of transparency and collaboration, we are writing to provide you early notice that the Government of Saskatchewan's provincial environmental assessment (EA) for the Wheeler River Project (the Project) is advancing on **November 9, 2024**.

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We appreciate your time and look forward to discussions on the Wheeler River Project as we move forward. Please do not hesitate to contact us if you have any questions.

Sincerely,



Janna Switzer

Vice President, Environment, Sustainability and Regulatory

Cc: David Cates, Brianne England (Denison)

Ken Scott, Candace Piper, Brady Pollock, (Saskatchewan Ministry of Environment)

Nana-Owusua Kwamena, Jessica Way, Rain Noakes (CNSC)



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November 1, 2024

Prince Albert Grand Council  
Chief Joseph Custer Reserve #201,  
2300 9th Avenue West, PO Box 2350  
Prince Albert, SK, S6V 6Z1

**Re: Advance Notice Provincial Environmental Assessment for the Wheeler River Project**

In the spirit of transparency and collaboration, we are writing to provide you early notice that the Government of Saskatchewan's provincial environmental assessment (EA) for the Wheeler River Project (the Project) is advancing on **November 9, 2024**.

**Provincial EA Next Steps**

The project is undergoing an environmental impact assessment under The Environmental Assessment Act.

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Denison will continue to keep you closely informed through future regulatory phases of the Project, including licensing by the CNSC under the Nuclear Safety and Control Act.

We appreciate your time and look forward to discussions on the Wheeler River Project as we move forward. Please do not hesitate to contact us if you have any questions.

Sincerely,



Janna Switzer

Vice President, Environment, Sustainability and Regulatory

Cc: David Cates, Brianne England (Denison)

Ken Scott, Candace Piper, Brady Pollock, (Saskatchewan Ministry of Environment)

Nana-Owusua Kwamena, Jessica Way, Rain Noakes (CNSC)



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November 1, 2024

Birch Narrows Dene Nation  
PO Box 40  
Turnor Lake, SK, S0M 3E0

**Re: Advance Notice Provincial Environmental Assessment for the Wheeler River Project**

In the spirit of transparency and collaboration, we are writing to provide you early notice that the Government of Saskatchewan's provincial environmental assessment (EA) for the Wheeler River Project (the Project) is advancing on **November 9, 2024**.

**Provincial EA Next Steps**

The project is undergoing an environmental impact assessment under The Environmental Assessment Act.

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We appreciate your time and look forward to discussions on the Wheeler River Project as we move forward. Please do not hesitate to contact us if you have any questions.

Sincerely,



Janna Switzer

Vice President, Environment, Sustainability and Regulatory

Cc: David Cates, Brianne England (Denison)

Ken Scott, Candace Piper, Brady Pollock, (Saskatchewan Ministry of Environment)

Nana-Owusua Kwamena, Jessica Way, Rain Noakes (CNSC)



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November 1, 2024

Buffalo River Dene Nation  
PO Box 40  
Dillon, SK, S0M 0S0

**Re: Advance Notice Provincial Environmental Assessment for the Wheeler River Project**

In the spirit of transparency and collaboration, we are writing to provide you early notice that the Government of Saskatchewan's provincial environmental assessment (EA) for the Wheeler River Project (the Project) is advancing on **November 9, 2024**.

**Provincial EA Next Steps**

The project is undergoing an environmental impact assessment under The Environmental Assessment Act.

The public is invited to provide comments on the environmental impact statement and government's technical review comments, which incorporates the requirements of the provincial environmental assessment process and identifies the key issues and studies addressed during the assessment.

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Denison will continue to keep you closely informed through future regulatory phases of the Project, including licensing by the CNSC under the Nuclear Safety and Control Act.

We appreciate your time and look forward to discussions on the Wheeler River Project as we move forward. Please do not hesitate to contact us if you have any questions.

Sincerely,



Janna Switzer

Vice President, Environment, Sustainability and Regulatory

Cc: David Cates, Brianne England (Denison)

Ken Scott, Candace Piper, Brady Pollock, (Saskatchewan Ministry of Environment)

Nana-Owusua Kwamena, Jessica Way, Rain Noakes (CNSC)



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November 1, 2024

Peter Ballantyne Cree Nation  
Cottage #13 - 2300 10th Ave W.  
PO Box 2320  
Prince Albert SK, S6V-6Z1

**Re: Advance Notice Provincial Environmental Assessment for the Wheeler River Project**

In the spirit of transparency and collaboration, we are writing to provide you early notice that the Government of Saskatchewan's provincial environmental assessment (EA) for the Wheeler River Project (the Project) is advancing on **November 9, 2024**.

**Provincial EA Next Steps**

The project is undergoing an environmental impact assessment under The Environmental Assessment Act.

The public is invited to provide comments on the environmental impact statement and government's technical review comments, which incorporates the requirements of the provincial environmental assessment process and identifies the key issues and studies addressed during the assessment.

Traditional knowledge and local information on the potential impacts of this project are welcomed and valued.

Documentation on the proposed project is on the Government of Saskatchewan's website at <https://publications.saskatchewan.ca/#/categories/4233>. For more information, contact Jeff Dereniwski at the Saskatchewan Ministry of Environment at 306-787-5791

**Federal EA Update**

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Denison will continue to keep you closely informed through future regulatory phases of the Project, including licensing by the CNSC under the *Nuclear Safety and Control Act*.

We appreciate your time and look forward to discussions on the Wheeler River Project as we move forward. Please do not hesitate to contact us if you have any questions.

Sincerely,



Janna Switzer

Vice President, Environment, Sustainability and Regulatory

Cc: David Cates, Brianne England (Denison)

Ken Scott, Candace Piper, Brady Pollock, (Saskatchewan Ministry of Environment)

Nana-Owusua Kwamena, Jessica Way, Rain Noakes (CNSC)



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November 1, 2024

Ya'thi Nene Lands and Resources Office  
c/o Garrett Schmidt  
100-335 Packham Avenue  
Saskatoon, SK, S7N 4S1

**Re: Advance Notice Provincial Environmental Assessment for the Wheeler River Project and the Government of Saskatchewan's Duty to Consult with Ya'thi Nene Lands and Resources**

Dear Garrett,

We hope this letter finds you well. In the spirit of transparency and collaboration, we are writing to provide you early notice that the Government of Saskatchewan's provincial environmental assessment (EA) for the Wheeler River Project (the Project) is advancing on November 9, 2024.

**Provincial EA Next Steps**

1. Continue the Government of Saskatchewan's duty to consult with YNLR for the Project, and summarize the procedural aspects of consultation which were assigned to Denison Mines Corp (Denison) as part of the provincial EA under *The Environmental Assessment Act* (Saskatchewan)
2. Share a link to the EIS online and instructions for submission of comments
3. Notify YNLR of its eligibility for a \$10,000 Fast Track Grant under the Consultation Participation Fund for this activity, and with the timeframe for YNLR comments, which will be requested by December 9, 2024.

For reference, if you require a copy of the correspondence sent in 2019 when the duty to consult was formally initiated for the Project, please contact us and we would be happy to forward. The 2019 letter explains the roles and responsibilities of Denison, and SK-ENV, in the duty to consult process for the provincial EA.

In conjunction with the confirmation of the duty to consult record, SK-ENV will be advertising through print and radio, to notify the public about a 30-day review and comment period on the EIS. From November 9 to December 9, 2024, the EIS will be posted on the SK-ENV website at: <https://publications.saskatchewan.ca/#/categories/4233>. For more information, contact Jeff Dereniwski at the Saskatchewan Ministry of Environment at 306-787-5791.

**Federal EA Update**

Denison also continues to advance the federal EA under the *Canadian Environmental Assessment Act, 2012*. Denison has worked to coordinate the provincial and federal environmental assessments in parallel, to achieve one single EIS that meets the requirements for both. Throughout 2024, Denison has worked with the Canadian Nuclear Safety Commission (CNSC) to resolve federal information requests. Denison hopes to advance the federal EA with submission of a final EIS in the near future.

Denison will continue to keep YNLR closely informed through future regulatory phases of the Project, including licensing by the CNSC under the *Nuclear Safety and Control Act*.

We appreciate your time and look forward to discussions on the Wheeler River Project as we move forward. Please do not hesitate to contact us if you have any questions.

Sincerely,



Janna Switzer

Vice President, Environment, Sustainability and Regulatory

Cc: David Cates, Brianne England (Denison)

Ken Scott, Candace Piper, Brady Pollock, (Saskatchewan Ministry of Environment)

Nana-Owusua Kwamena, Jessica Way, Rain Noakes (CNSC)

Dana Kellet, Bruce Hanbidge (YNLR)



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November 1, 2024

Métis Nation - Saskatchewan  
Suite 201, 208-19th St W  
Saskatoon, SK, S7M 5X8

**Re: Provincial Environmental Assessment for the Wheeler River Project and the Government of Saskatchewan's Duty to Consult with Métis Nation – Saskatchewan**

Dear President McCallum,

We hope this letter finds you well. In the spirit of transparency and collaboration, we are writing to provide you early notice that the Government of Saskatchewan's provincial environmental assessment (EA) for the Wheeler River Project (the Project) is advancing on November 9, 2024.

**Provincial EA Next Steps**

1. Continue the Government of Saskatchewan's duty to consult with MN-S for the Project, and summarize the procedural aspects of consultation which were assigned to Denison Mines Corp (Denison) as part of the provincial EA under *The Environmental Assessment Act* (Saskatchewan)
2. Share a link to the EIS online and instructions for submission of comments
3. Notify MN-S of its eligibility for a \$10,000 Fast Track Grant under the Consultation Participation Fund for this activity, and with the timeframe for MN-S comments, which will be requested by December 9, 2024.

For reference, if you require a copy of the correspondence from 2019 when the duty to consult was formally initiated for the Project, please contact us and we would be happy to forward. The 2019 letter explains the roles and responsibilities of Denison, and SK-ENV, in the duty to consult process for the provincial EA.

In conjunction with the confirmation of the duty to consult record, SK-ENV will be advertising through print and radio, to notify the public about a 30-day review and comment period on the EIS. From November 9 to December 9, 2024, the EIS will be posted on the SK-ENV website at: <https://publications.saskatchewan.ca/#/categories/4233>. For more information, contact Jeff Dereniwski at the Saskatchewan Ministry of Environment at 306-787-5791.

**Federal EA Update**

Denison also continues to advance the federal EA under the *Canadian Environmental Assessment Act, 2012*. Denison has worked to coordinate the provincial and federal environmental assessments in parallel, to achieve one single EIS that meets the requirements for both. Throughout 2024, Denison has worked with the Canadian Nuclear Safety Commission (CNSC) to resolve federal information requests. Denison hopes to advance the federal EA with submission of a final EIS in the near future.

Denison will continue to keep MN-S closely informed through future regulatory phases of the Project, including licensing by the CNSC under the *Nuclear Safety and Control Act*.

We appreciate your time and look forward to discussions on the Wheeler River Project as we move forward. Please do not hesitate to contact us if you have any questions.

Sincerely,



Janna Switzer

Vice President, Environment, Sustainability and Regulatory

Cc: David Cates, Brianne England (Denison)

Ken Scott, Candace Piper, Brady Pollock, (Saskatchewan Ministry of Environment)

Nana-Owusua Kwamena, Jessica Way, Rain Noakes (CNSC)

Brent Laroque (MN-S)

**From:** [Gaylene Poulin](#)  
**To:** [garrett.schmidt@yathinene.com](mailto:garrett.schmidt@yathinene.com)  
**Subject:** Notice of Provincial Environmental Assessment for the Wheeler River Project and the Government of Saskatchewan's Duty to Consult with YNLR  
**Date:** Friday, November 8, 2024 4:01:24 PM  
**Attachments:** [Outlook-ds5xbhps](#)

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In the spirit of transparency and collaboration, we are writing to provide you early notice that the Government of Saskatchewan's provincial environmental assessment (EA) for the Wheeler River Project (the Project) advanced on November 7, 2024.

### **Provincial EA Next Steps**

1. Continue the Government of Saskatchewan's duty to consult with Ya' thi Néné for the Project, and summarize the procedural aspects of consultation which were assigned to Denison Mines Corp (Denison) as part of the provincial EA under *The Environmental Assessment Act* (Saskatchewan)
2. Share a link to the EIS online and instructions for submission of comments
3. Notify Ya' thi Néné of its eligibility for a \$10,000 Fast Track Grant under the Consultation Participation Fund for this activity, and with the timeframe for YNLR comments, which will be requested by December 9, 2024.

For reference, if you require a copy of the correspondence sent in 2019 when the duty to consult was formally initiated for the Project, please contact us and we would be happy to forward. The 2019 letter explains the roles and responsibilities of Denison, and SK-ENV, in the duty to consult process for the provincial EA.

In conjunction with the confirmation of the duty to consult record, SK-ENV will be advertising through print and radio, to notify the public about a 30-day review and comment period on the EIS. From November 9 to December 9, 2024, the EIS will be posted on the SK-ENV website at:

<https://publications.saskatchewan.ca/#/categories/4233>. **For more information, contact Jeff Dereniwski at the Saskatchewan Ministry of Environment at 306-787-5791.**

### **Federal EA Update**

Denison also continues to advance the federal EA under the Canadian Environmental Assessment Act, 2012. Denison has worked to coordinate the provincial and federal environmental assessments in parallel, to achieve one single EIS that meets the requirements for both. Throughout 2024, Denison has worked with the Canadian Nuclear Safety Commission (CNSC) to resolve federal information requests. Denison is targeting submission



of the final EIS for the federal EA by the end of 2024.

Denison will continue to keep Ya' thi Néné closely informed through future regulatory phases of the Project, including licensing by the CNSC under the Nuclear Safety and Control Act. We appreciate your time and look forward to discussions on the Wheeler River Project as we move forward. Please do not hesitate to contact us if you have any questions.

On behalf of, Janna Switzer,  
Vice President, Environment, Sustainability and Regulatory  
Denison Mines Corp.

**Gaylene Poulin**

Community Engagement Lead

m: 306-380-6582 | f: 306-652-8202

345 4<sup>th</sup> Avenue South

Saskatoon, SK, Canada, S7K 1N3



TSX: DML | NYSE MKT: DNN

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**From:** [Bruce Hanbidge](#)  
**To:** [Janna Switzer](#)  
**Cc:** [Carolanne Inglis-McQuay](#); [Garrett Schmidt](#)  
**Subject:** [\*\*]request for review and comment  
**Date:** Tuesday, December 17, 2024 5:22:40 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Janna:

During the YNLR/Denison meeting on 14 November 2024 you requested YNLR to review their concerns, as stated in their letter of 19 June 2024, with a number of information requests (IRs) and Denison's responses to those requests, pertaining to the information in their revised draft EIS. YNLR has, as requested, reviewed their concerns and the following is their current position, given the progress that has been made, since 19 June 2024 between Denison and YNLR.

YNLR is now satisfied that their concerns have been addressed for the following (IRs) noted in their letter of 19 June 2024: 376, 377, 382, 385, 392, 420, 425 – 429, 431, 432, 434 – 438.

Respecting the following IRs in their letter of 19 June 2024: 378, 380, 381, 384, 386 – 390, 393 – 397, 430, 433, and 479; YNLR was appreciative of the meeting with Denison on 14 Nov 2024 where Denison presented six monitoring plans for YNLR to review and comment on at a conceptual level. In expectation of substantive progress on the review of these plans, coupled with the anticipated responses from:

- the provincial government on their completion of their EIA process for the Wheeler River project; and
- the CNSC on the completion of their technical review of the project.

YNLR is very optimistic that they will be able to inform Denison, in the near future, that their concerns with these remaining IRs have been addressed.

I appreciate Denison's collaborative approach, and I look forward our next, and future, meetings.

Respectfully

**Bruce Hanbidge**  
Strategic Advisor | Ya'thi Néné Land and Resource Office



E: [bruce.hanbidge@yathinene.com](mailto:bruce.hanbidge@yathinene.com)

A: 100-335 Packham Ave., Saskatoon, SK S7N 4S1

[www.yathinene.ca](http://www.yathinene.ca)



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[www.denisonmines.com](http://www.denisonmines.com)

March 12, 2025

Chief Jonathon Sylvestre  
Birch Narrows Dene Nation  
Turnor Lake, Saskatchewan S0M 3E0

Sent via email: [chief1@birchnarrows.ca](mailto:chief1@birchnarrows.ca)

**Re: Letter from Birch Narrow Dene Nation dated March 3, 2025**

Dear Chief Sylvestre:

On behalf of Denison Mines Corp. (“Denison”), I write in response to your letter dated March 3, 2025 regarding Birch Narrow Dene Nation’s (“BNDN”) reversal of its previous position as set out in your January 16, 2024 letter. While BNDN’s change of position is unfortunate, Denison remains committed to continuing its ongoing engagement with BNDN to understand its concerns and incorporating its input in the development of the Project.

Denison respects the relationship BNDN maintains with its traditional lands and the environment, and has prioritized understanding this relationship since the parties began engaging in respect of the Wheeler River Project (the “Project”) in 2019. Throughout this engagement, Denison has included BNDN in engagement processes for the Project and has met with representatives of BNDN on multiple occasions to share information and create meaningful dialogue about the Project.

We have consistently sought to address BNDN concerns and incorporate feedback into the Project’s development. To this end, after BNDN submitted 89 technical comments on February 28, 2023 for the Project’s draft Environmental Impact Statement (“EIS”), the Chief Executive Officer of Denison met with you on July 31, 2023 to understand BNDN’s concerns and identify opportunities to meaningfully incorporate its feedback. Following this meeting, Denison responded to all of the comments submit by BNDN and took action to address its concerns. For example, in response to BNDN’s concern about methyl mercury, Denison revised the EIS and committed to collecting background information pertaining to total sediment and methyl mercury from lakes and rivers near the Project. Further, Denison provided a written summary for BNDN members that outlined the actions Denison was taking to protect traditional lands and the environment.

We understood our responses and actions addressed BNDN’s concerns. In your January 16<sup>th</sup> letter, you wrote that BNDN was satisfied with Denison’s responses and encouraged engagement to continue as the Project progressed. Your March 3<sup>rd</sup> letter now refers to, but does not specify, unresolved environmental concerns on the part of BNDN. Consistent with our past conduct, we would value an opportunity to meet with BNDN in the near future to understand the details of



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these outstanding concerns and to identify ways they can be addressed as the Project moves forward.

We remain committed to advancing the Project in a manner respectful of BNDN and its relationship with its traditional lands and the environment. We look forward to hearing from you.

Sincerely,

A handwritten signature in black ink, appearing to read 'Janna Switzer', with a stylized flourish at the end.

Janna Switzer  
Vice President, Environment, Sustainability & Regulatory

Cc: John Glover (Tamarack Environmental)  
Andrew Bubar (Tamarack Environmental)  
Keegan McGrath (Tamarack Environmental)  
Ryan Smith (Tamarack Environmental)



**May 26, 2025**

Jessica Way  
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Commission  
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**Re: Birch Narrows Dene Nation – Withdrawal of Support Letters and Outstanding Concerns on the Wheeler River Project**

Dear Ms. Way, Mr. McKeown, and Ms. Switzer,

I am writing this letter to communicate two important messages on behalf of Birch Narrows Dene Nation (BNDN) regarding Denison Mines Corp.'s proposed Wheeler River Project.

**1. Withdrawal of Support for the Wheeler River Project**

BNDN no longer supports the Wheeler River Project. We formally rescind any prior correspondence on the public registry that could be interpreted as support for the Project.

This includes letters submitted by the Birch Narrows Dene Development Inc. (BNDDI), which were issued without undergoing any process that appropriately considered the concerns and interests of BNDN members. These letters were not informed by community direction and do not reflect the best interests of our Nation. As such, they are not valid expressions of support and must not be used to indicate the existence of free, prior, and informed consent.

We communicated this withdrawal of support to Denison Mines Corp. in a letter dated March 3, 2025, a copy of which is enclosed for your records. Denison responded in a letter dated March 12, 2025, which we have reviewed. While we appreciate Denison's acknowledgement of our position, we wish to ensure that this change is also formally and clearly conveyed to the Canadian Nuclear Safety Commission (CNSC), the federal authority overseeing the licensing of the Project.

We respectfully request that any past letters suggesting BNDN support be removed from the public registry and disregarded in the CNSC's environmental assessment and licensing decision-making Processes

**2. Denison's Failure to Respect BNDN's Treaty Rights and Land Use**

We are deeply concerned by Denison's ongoing assertion that BNDN does not have recognized land use in the project area. This claim is false and disregards our ancestral and ongoing presence in the region. As Dene



Sųtiné people and signatories to Treaty 10, we have longstanding and active use of lands and waters in and around the Wheeler River area, particularly throughout the Cree Lake region. These activities—hunting, trapping, fishing, and gathering—are central to our culture, governance, and identity, not incidental.

Denison has taken the unacceptable position that BNDN warrants less consultation and accommodation than other Nations, despite the fact that our members continue to exercise Treaty and Aboriginal rights in the region and that we are geographically closer to the project than some Nations that have already signed agreements.

We are particularly alarmed by the following behaviors:

- Denison’s repeated dismissal of our land use and rights in the project area.
- The refusal to recognize this as Treaty 10 territory, where the Crown and all proponents have a legal duty to consult and accommodate BNDN.
- Denison’s denial of funding for a BNDN-led Indigenous Knowledge study, while simultaneously demanding that we “prove” our land connection.
- The use of colonial frameworks to determine which Nations are “relevant,” thereby marginalizing BNDN.

These actions reflect a pattern of exclusion and undermine the legitimacy and integrity of consultation processes. Denison is not in a position to define our land use, identity, or governance. That authority lies with our Nation.

### **3. Summary of Outstanding Technical Concerns**

BNDN is also submitting a technical review of Denison’s responses to our comments on the Wheeler River Project Technical Review Table. This review reflects our Nation’s ongoing concerns regarding the adequacy of the Proponent’s responses and the Project’s potential impacts on our lands, waters, and ability to meaningfully exercise our Treaty and Aboriginal rights.

Our concerns were developed through internal BNDN technical review processes and validated by leadership. The attached table (Appendix A) provides a detailed summary of each comment raised, Denison’s corresponding response, and BNDN’s assessment of whether the response is adequate.

Our primary concern is that Denison continues to tell our community that we are not directly impacted and are warranted a lower level of consultation and accommodation than other groups. Denison mischaracterizes BNDN as not being part of “Indigenous Communities of Interest with reserves and residential communities most proximal to the Project”. BNDN is closer to the Project than other communities who have signed accommodation agreements. The project is located within BNDN’s treaty and ancestral lands where members have deep ancestral ties and continue to exercise rights to this day. Denison’s position of BNDN requiring less consultation and accommodation than other communities is unacceptable and wrong. Denison is not in a position to define BNDNs territory or land use.

#### **Summary of Comment Disposition**

Based on our review, we categorize the responses to our comments as follows:

- Addressed: 30
- Provisionally Addressed: 5

- Partially Addressed: 7
- Not Addressed: 64

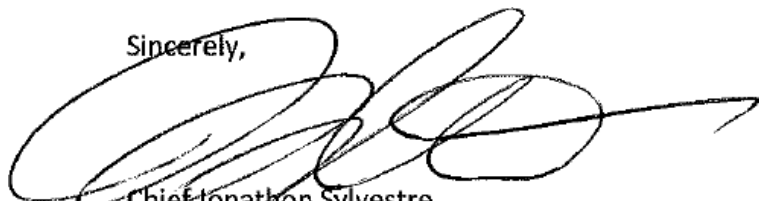
All comments that are not fully addressed remain outstanding concerns for our Nation. We request that the Proponent and CNSC engage with BNDN to collaboratively resolve these issues. We emphasize that the duty to consult includes the obligation to substantially address concerns raised by Indigenous Nations—what Canadian law refers to as accommodation. This duty cannot be satisfied without a meaningful process for issue resolution.

#### **4. Path Forward**

BNDN is committed to engaging in good faith with both Denison and the CNSC in respect of the federal assessment and licensing of the Wheeler River Project. We expect all future engagement to take place directly with our elected leadership, with full transparency, and in a manner that respects our governance structures, rights, and protocols.

We remain open to working with both the Proponent and the Commission to ensure that BNDN's concerns are thoroughly addressed and that the integrity of our decision-making processes is upheld.

Sincerely,



Chief Jonathon Sylvestre  
Birch Narrows Dene Nation

**CC:**

BNDN Council

Carolanne Inglis McQuay, Denison Mines [cinglismcquay@denisonmines.com](mailto:cinglismcquay@denisonmines.com)

CNSC, [WheelerRiver@cnscccsn.gc.ca](mailto:WheelerRiver@cnscccsn.gc.ca)

## Denison's Responses to Comments from BNDN on the Wheeler River Project draft EIS

Denison Response – November 29, 2023

### Denison's Responses to Comment from Birch Narrows Dene Nation (February 28, 2023) for the Wheeler River Project Environmental Impact Statement

Ref. No.	Source	Reference to EIS, appendix, or supporting documentation	Comment Summary (all original submissions can be found on Canadian Impact Assessment Registry reference: 80171)	Denison Response	
2	Birch Narrows Dene Nation (BNDN) (February 28, 2023)	Section 5.7; 5.8.1	<p>Comment #1: The Project is located within the treaty and ancestral lands of BNDN and maintains both current and historical significance to the community. BNDN Indigenous Knowledge, Land Use and Occupancy are not currently considered within the EIS. Should the Project proceed without the consideration of BNDN's Knowledge, Land Use and Occupancy, it may cause irreparable loss of culturally significant sites and access to resources that the community depends upon. It may also contribute to a loss in cultural transmission.</p> <p>Request/recommendation:</p> <p>a) Denison should provide BNDN with funds to conduct a community-led Indigenous Knowledge, Land Use and Occupancy Study for consideration within the EIS process. At minimum, the Study should consider BNDN's Indigenous Ecological Knowledge, commercial and non-commercial harvesting practices, and cultural occupation of the region (including historical sites). The Study should also</p>	<p>Denison's engagement with BNDN is consistent with the identification of BNDN as an Indigenous Community who has expressed an interest in the Project. However, Denison acknowledges and understands this information from BNDN. As such, over the past year(s), Denison has met with BNDN and has respectfully requested further information from BNDN in respect to the land use activities occurring in and around the Project in order to more meaningfully understand the potential for adverse impacts to BNDN and therefore consider the potential for further studies and/or integration into the EIS of such information. Denison remains of the perspective that receipt of this information from BNDN is a necessary first step in this process, and has not received information in this regard to date.</p> <p>Project effects have been mitigated for the most intensive resource user(s), irrespective of affiliation.</p> <p>Denison continues to work with its Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, Denison has committed to collaborating with English River First Nation and Kineepik Métis Local on a community specific monitoring regime, suited to each of their interests and needs, in an agreed-upon fashion. Denison is committed to continual improvement in relation to such collaborative monitoring programs, in order to adapt to areas of interest which can change over time. It is expected that the data collected through such monitoring regimes would also be relevant to other Indigenous nations who may have interest in the Project. Therefore, Denison does not anticipate separate funding for BNDN at this time.</p>	<p><b>Not Addressed.</b></p> <p>While the proponent has requested Indigenous Knowledge from BNDN, they have not made any resources available for BNDN to collect it, nor has the company engaged in any efforts to sign any agreements that provide assurances around confidentiality. BNDN lacks capacity and requires such resources and assurances to be able to provide Indigenous Knowledge; further, it is standard procedure for proponents to provide such financial capacity.</p> <p>The project is located in a critically important area for BNDN; Cree Lake and surrounding areas fosters important caribou habitat that BNDN members rely on. BNDN carries out rights protected activities throughout the project location, which falls within BNDN's treaty and ancestral lands. BNDN's rights and interests will be impacted by the project if it is approved.</p> <p>I) BNDN requires capacity funding from the proponent to conduct a community-led and project-specific Indigenous Knowledge study so BNDN can evaluate the impacts the project will have</p>

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Denison Response – November 29, 2023

Ref. No.	Source	Reference to EIS, appendix, or supporting documentation	Comment Summary (all original submissions can be found on Canadian Impact Assessment Registry reference: 80171)	Denison Response	
			<p>consider cultural transmission, information about the history of the area and BNDN community members' perspectives on the Project.</p> <p>b) The community-led Indigenous Knowledge, Land Use and Occupancy Study should be a component of a broader process agreement between BNDN and Denison that serves as a pathway for obtaining BNDN's consent for the Project.</p> <p>c) Denison should work with BNDN to consider the appropriate integration of the results into all aspects of the EIS and management/monitoring plans, as well as any additional appropriate mitigation and/or accommodation measures.</p> <p>See Section 4.1 for additional information on this topic.</p>	<p>Further, the assessment has been completed based on Valued Components (VCs), including the VC of Indigenous Land and Resource Use. Key indicators for Indigenous Land and Resource Use include:</p> <ul style="list-style-type: none"> <li>• resource availability for harvesting subsistence resources (distribution and abundance of animals, plants, and wildlife for harvest and suitability of animals, plants, and wildlife for consumption);</li> <li>• land/water availability to practice traditional land use (TLU); and</li> <li>• perceived suitability of lands and resources therein.</li> </ul> <p>Measurable parameters are identified for each of the key indicators, as presented in Table 11.1-1 of the EIS.</p> <p>The assessment does not take a distinctions based approach (i.e., the potential impact on each Indigenous community is not evaluated separately), but rather on the key indicators and associated measurable parameters.</p> <p>Mitigation to eliminate, reduce, or control potential adverse effects of the Project on Indigenous Land and Resource Use would apply to any BNDN uses proximal to the Project. Given proven mitigation is to be applied to traffic disturbances, noise, air quality, and increased competition for resources, the effects are expected to be minimal.</p> <p>As outlined in Denison's Indigenous Peoples Policy, Denison is committed to respecting Indigenous knowledge and values regarding environmental stewardship and Indigenous peoples' connection to the land, and to minimize potential effects, wherever possible.</p>	<p>on BNDN and so the results of the study may inform the project and its evaluation.</p> <p>BNDN requires the EIS to be updated based on the results of BNDN's Indigenous Knowledge Study. BNDN must be engaged on how its results are used to update the EIS.</p>
3	BNDN (February 28, 2023)	Heritage Baseline Study 2017 (Golder); Heritage Resource	Comment #2: Archaeology as a profession has been dominated in North America by non- Indigenous researchers, despite most sites being Indigenous in origin. It is	Denison's engagement with BNDN is consistent with the identification of BNDN as an Indigenous Community who has expressed an interest in the Project. However, Denison understands this information from BNDN. As such, over the past year(s), Denison has met with BNDN and has	<p><b>Not Addressed.</b></p> <p>While the proponent has requested Indigenous Knowledge from BNDN, they</p>

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		Impact Assessment 2020 (Golder); Heritage Resources Management Plan 2022 (Canada North)	<p>positive that Golder Associates made efforts to engage and involve Indigenous communities (by including an ERFN representative in fieldwork and by considering ERFN and Pinehouse Kineepik Metis land use maps) in their 2017 heritage baseline study and 2020 heritage resource impact assessment.</p> <p>Notwithstanding, the proposed Project area is within BNDN's treaty and ancestral lands and there may be heritage sites that the community is aware of. BNDN was not involved in either of these studies and BNDN may have Indigenous Knowledge of important heritage sites within the Study Area that should be considered.</p> <p>Request/recommendation:</p> <p>a) Denison should provide BNDN with funds to conduct a community-led Indigenous Knowledge, Land Use and Occupancy Study for consideration within the EIS process.</p> <p>b) The Heritage Resources Management Plan should be updated following the consideration of Indigenous Knowledge, Land Use and Occupancy provided by BNDN. This may result in the requirement for further assessment and/or</p>	<p>respectfully requested further information from BNDN in respect to the land use activities to occurring in and around the Project, in order to more meaningfully understand the potential for adverse impacts to BNDN and therefore consider the potential for further studies and / or integration into the EIS of such information. Denison remains of the perspective that receipt of this information from BNDN is a necessary first step in this process, and has not received information in this regard to date.</p> <p>Project effects have been mitigated for the most intensive resource user(s), irrespective of affiliation.</p> <p>Denison continues to work with its Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, Denison has committed to collaborating with English River First Nation and Kineepik Métis Local on a community specific monitoring regime, suited to each of their interests and needs, in an agreed-upon fashion. Denison is committed to continual improvement in relation to such collaborative monitoring programs, in order to adapt to areas of interest which can change over time. It is expected that the data collected through such monitoring regimes would also be relevant to other Indigenous nations who may have interest in the Project. Therefore, Denison does not anticipate separate funding for BNDN at this time.</p> <p>Following the implementation of the mitigation measures outlined in the Heritage Resource Management Plan (HRMP), the likelihood of residual effects is considered low and residual effects on Heritage Resources will occur infrequently and can be mitigated with the HRMP. Known archaeological resources identified in the Project Area were deemed to have low potential for archaeological interpretation and additional work or mitigation measures were not required for the sites; the Heritage Conservation Branch had no further concerns with these sites and work</p>	<p>have not made any resources available for BNDN to collect it, nor has the company engaged in any efforts to sign any agreements that provide assurances around confidentiality. BNDN lacks capacity and requires such resources and assurances to be able to provide Indigenous Knowledge; further, it is standard procedure for proponents to provide such financial capacity. Proposed mitigation measures for project effects are inadequate to BNDN and have been developed without consideration of BNDN land use and knowledge; the proponents' suggestion that the mitigation measures are adequate for impacts to BNDN that have not been assessed is deficient.</p> <p>The project is located within BNDN's treaty and ancestral lands where members have deep ancestral ties and continue to exercise rights to this day. Most archaeological material in Canada is Indigenous in origin; there is a significant chance that any archaeological material found on site derives from BNDN ancestors. BNDN has inherent rights to its cultural heritage, as affirmed by UNDRIP.</p> <p>i) BNDN requires capacity funding from the proponent to conduct a community-led and project-specific Indigenous Knowledge study so BNDN can evaluate the impacts the project will have</p>



## Denison's Responses to Comments from BNDN on the Wheeler River Project draft EIS

Denison Response – November 29, 2023

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			<p>mitigation measures, which should be developed in consultation with BNDN.</p> <p>c) Denison should facilitate BNDN involvement in any additional archaeological fieldwork that takes place, including providing BNDN with capacity funding for members who participate. Terms to facilitate BNDN involvement in future archaeological work should be a component of a broader process agreement between BNDN and Denison.</p> <p>See Section 4.1 for additional information on this topic (p. 12-14).</p>	<p>could proceed as planned. Should unknown archaeological and cultural resources be identified during the Project, effects will be mitigated using the HRMP. While effects to archaeological resources are irreversible, they can be mitigated by following the HRMP, by either avoiding additional damage to the resource by creating a buffer zone around the site, or by assessing the resource according to The Heritage Property Act to enable the full interpretation of the site before continuing with work. Furthermore, based on the low occurrence of known Heritage Resources in the Project Area (two), and the location of the Heritage Resources (near waterbodies, along an existing trail and away from the main developments), there is a low potential for the identification or disturbance of previously unknown archaeological sites throughout the life of the Project. Therefore, any residual effects (i.e., destruction of Heritage Resources) is considered to be negligible. Further, HRMP includes feedback from Indigenous nations with demonstrated significant land use activities in and around the Project.</p> <p>As outlined in Denison's Indigenous Peoples Policy, Denison is committed to respecting Indigenous knowledge and values regarding environmental stewardship and Indigenous peoples' connection to the land, and to minimize potential effects, wherever possible.</p> <p>Please see Section 11.3.2 Influence of Indigenous Knowledge, Local Knowledge, and Engagement on the Assessment for Heritage Resources. The Section describes how field assistants from local Indigenous communities were involved with the HRIA baseline studies, allowing for in-field consultation during the assessment to make sure that areas deemed to have potential by the land users were surveyed.</p>	<p>on BNDN and so the results of the study may inform the project and its evaluation.</p> <p>II) The Heritage Resources Management Plan should be updated following the consideration of BNDN's Indigenous Knowledge study.</p> <p>III) The proponent must engage with BNDN to discuss opportunities for BNDN to participate in archaeological work moving forward.</p>

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Denison Response – November 29, 2023

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4	BNDN (February 28, 2023)	Heritage Baseline Study 2017 (Golder) – methods; Heritage Resource Impact Assessment 2020 (Golder) – methods	<p>Comment #3: The methodology within both the 2017 and 2020 heritage studies included 'judgmental' shovel probing and initial troweling through soil to identify cultural heritage material. While the discretion of a professional archaeologist needs to be taken into account, relying subjectively on which areas to shovel test and not employing a systematic approach is not reproducible and may result in sites being missed; this is of particular concern given that large sections of the areas retaining potential were not subject to shovel testing. Further, troweling through soil rather than subjecting all excavated soil to sifting through 6mm mesh means that artifacts/ecofacts may easily be overlooked. Given that the north of Saskatchewan has not been thoroughly investigated archaeologically and given that 76 sites and nine find areas were recorded just 35 km south of the Project area as part of Dr. David Meyer's multi-year archaeological investigation, the results of these assessments do not seem rigorous.</p> <p>Request/recommendation:</p> <p>a) BNDN recommends that Denison undertake further</p>	<p>The 2017 and 2020 heritage studies were reviewed by the Heritage Conservation Branch. The HRIA was completed using standard pedestrian reconnaissance and visual inspection field techniques, complimented by the excavation of shovel probes and shovel tests and it was determined the site has limited interpretive potential. Please see Section 11.3.2 Influence of Indigenous Knowledge, Local Knowledge, and Engagement on the Assessment for Heritage Resources. The Section describes how field assistants from local Indigenous communities were involved with the HRIA baseline studies, allowing for in-field consultation during the assessment to make sure that areas deemed to have potential by the land users were surveyed. The details of monitoring and follow-up plans are being developed to support the separate process of Project licensing and permitting. The specific means by which provincial and federal authorities, and Indigenous Nations and communities will be engaged in developing the follow-up and monitoring program, including the information-sharing program, are currently under consideration with the Denison project team. It is noted that Section 4.2.1 of the draft EIS provides the variety of ways in which Denison has engaged with Interested Parties to date and it is assumed it would continue to use these means and others that may be identified to fulfill its key corporate principals for developing positive relationships (see draft EIS Section 4.2).</p> <p>Denison continues to work with its Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, Denison has committed to collaborating with English River First Nation and Kineepik Métis Local on a community specific monitoring regime, suited to each of their interests and needs, in an agreed-upon fashion. Denison is committed to continual improvement in relation to such collaborative monitoring programs, in order to adapt to areas of interest</p>	<p><b>Not Addressed.</b></p> <p>BNDN will not retain confidence in the results of the heritage assessments until the nation is able to complete an Indigenous Knowledge Study and the results are incorporated into the EIS.</p> <p>The project is located within BNDN's treaty and ancestral lands where members have deep ancestral ties and continue to exercise rights to this day. Most archaeological material in Canada is Indigenous in origin; there is a significant chance that any archaeological material found on site derives from BNDN ancestors. BNDN has inherent rights to its cultural heritage, as affirmed by UNDRIP.</p> <p>I) BNDN requires capacity funding from the proponent to conduct a community-led and project-specific Indigenous Knowledge study so BNDN can evaluate the impacts the project will have on BNDN and so the results of the study may inform the project and its evaluation.</p> <p>II) BNDN requires the EIS to be updated based on the results of BNDN's Indigenous Knowledge Study. BNDN must be engaged on how its</p>

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			<p>archaeological investigations based on the results of the BNDN TKLU study prior to construction of the project.</p> <p>b) Future archaeological assessment programs should be designed collaboratively with BNDN and other Impacted Indigenous Nations.</p> <p>See Section 4.1 for additional information on this topic (p. 12-14).</p>	<p>which can change over time. It is expected that the data collected through such monitoring regimes would also be relevant to other Indigenous nations who may have interest in the Project. Therefore, Denison does not anticipate separate funding for BNDN at this time. Please see Section 11.3.2 Influence of Indigenous Knowledge, Local Knowledge, and Engagement on the Assessment for Heritage Resources. The Section describes how field assistants from local Indigenous communities were involved with the HRIA baseline studies, allowing for in-field consultation during the assessment to make sure that areas deemed to have potential by the land users were surveyed.</p>	<p>III)</p> <p>results are used to update the EIS.</p> <p>The proponent must commit to engaging Indigenous Nations, including BNDN in decision making related to Indigenous archaeological material and sites rather than merely informing these nations.</p>
5	BNDN (February 28, 2023)	Heritage Baseline Study 2017 (Golder) – methods; Heritage Resource Impact Assessment 2020 (Golder) – methods	<p>Comment #4: The presence of strandlines are noted as being an indicator of archaeological potential; however, it is unclear within the reports whether any strandlines are present within the Study Area. Most of the investigations and shovel probes that took place were around existing waterbodies.</p> <p>Request/recommendation: Please indicate whether strandlines are present anywhere in the Study Area.</p> <p>See Section 4.1 for additional information on this topic (p. 12-14).</p>	<p>Strandlines, like other linear landforms, do increase archaeological potential, however heritage resources are only directly effected by Project activities and there are no strandlines located in the Phoenix Site area (Government of Saskatchewan. N.d. 250K Surficial Geology Linear Landforms. Available at: <a href="https://geohub.saskatchewan.ca/datasets/saskatchewan::250k-surficial-geology-linear-landforms/explore?location=57.247957%2C-106.370278%2C6.33">https://geohub.saskatchewan.ca/datasets/saskatchewan::250k-surficial-geology-linear-landforms/explore?location=57.247957%2C-106.370278%2C6.33</a> [Accessed November 29, 2023]).</p>	<b>Addressed.</b>
6	BNDN (February 28, 2023)	Heritage Baseline Study 2017 (Golder) – methods; Heritage	<p>Comment #5: It is unclear whether the locations identified by other Indigenous communities in their Land Use maps were investigated archaeologically and subject where</p>	<p>Please see Section 11.3.2 Influence of Indigenous Knowledge, Local Knowledge, and Engagement on the Assessment for Heritage Resources. The Section describes how field assistants from local Indigenous communities were involved with the HRIA baseline studies, allowing for</p>	<b>Addressed.</b>

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		Resource Impact Assessment 2020 (Golder) – methods	<p>appropriate to shovel testing. Knowing this will give confidence to BNDN that areas they may identify as retaining potential may undergo further assessment if necessary.</p> <p>Request/recommendation: Please indicate whether the areas identified by other Indigenous communities in their Land Use maps were investigated archaeologically.</p> <p>See Section 4.1 for additional information on this topic (p. 12-14).</p>	in-field consultation during the assessment to make sure that areas deemed to have potential by the land users were surveyed.	
7	BNDN (February 28, 2023)	Heritage Resources Management Plan 2022 (Canada North) – 4.0	<p>Comment #6: The archaeological context provided is very Western/Scientific. Denison must also include historical/pre-historical accounts of Indigenous communities to provide an appropriate and comprehensive assessment of the archaeological context of the region.</p> <p>Request/recommendation: Denison must include a write-up of Indigenous historical and prehistorical accounts in consultation with relevant Indigenous communities. This write up must include historic context provided through oral history interviews as part of BNDN's community-led Indigenous</p>	<p>Denison's engagement with BNDN is consistent with the identification of BNDN as an Indigenous Community who has expressed an interest in the Project. However, Denison understands this information from BNDN. As such, over the past year(s), Denison has met with BNDN and has respectfully requested further information from BNDN in respect to the land use activities to occurring in and around the Project, in order to more meaningfully understand the potential for adverse impacts to BNDN and therefore consider the potential for further studies and / or integration into the EIS of such information. Denison remains of the perspective that receipt of this information from BNDN is a necessary first step in this process, and has not received information in this regard to date.</p> <p>Project effects have been mitigated for the most intensive resource user(s), irrespective of affiliation.</p> <p>Denison continues to work with its Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, Denison has</p>	<p><b>Not Addressed.</b></p> <p>Denison's response does not address the recommendation posed by BNDN regarding the revision of the archaeological context to include a write-up of Indigenous historical and prehistorical accounts, in consultation with impacted Indigenous communities.</p> <p>Further, while the proponent has requested Indigenous Knowledge from BNDN, they have not made any resources available for BNDN to collect it, nor has the company engaged in any efforts to sign any agreements that provide assurances around confidentiality. BNDN lacks capacity and requires such resources and assurances to be able to provide Indigenous Knowledge; further, it is standard procedure for proponents to provide such financial</p>

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			<p>Knowledge, Land Use and Occupancy Study for the Project.</p> <p>See Section 4.1 for additional information on this topic (p. 12-14).</p>	<p>committed to collaborating with English River First Nation and Kineepik Métis Local on a community specific monitoring regime, suited to each of their interests and needs, in an agreed-upon fashion. Denison is committed to continual improvement in relation to such collaborative monitoring programs, in order to adapt to areas of interest which can change over time. It is expected that the data collected through such monitoring regimes would also be relevant to other Indigenous nations who may have interest in the Project.</p> <p>Following the implementation of the mitigation measures outlined in the Heritage Resource Management Plan (HRMP), the likelihood of residual effects is considered low and residual effects on Heritage Resources will occur infrequently and can be mitigated with the HRMP. Known archaeological resources identified in the Project Area were deemed to have low potential for archaeological interpretation and additional work or mitigation measures were not required for the sites; the Heritage Conservation Branch had no further concerns with these sites and work could proceed as planned. Should unknown archaeological and cultural resources be identified during the Project, effects will be mitigated using the HRMP. While effects to archaeological resources are irreversible, they can be mitigated by following the HRMP, by either avoiding additional damage to the resource by creating a buffer zone around the site, or by assessing the resource according to The Heritage Property Act to enable the full interpretation of the site before continuing with work. Furthermore, based on the low occurrence of known Heritage Resources in the Project Area (two), and the location of the Heritage Resources (near waterbodies, along an existing trail and away from the main developments), there is a low potential for the identification or disturbance of previously unknown archaeological sites throughout the life of the Project.</p>	<p>capacity. Proposed mitigation measures for project effects are inadequate to BNDN and have been developed without consideration of BNDN land use and knowledge; the proponents' suggestion that the mitigation measures are adequate for impacts to BNDN that have not been assessed is deficient.</p> <p>I) BNDN requires capacity funding from the proponent to conduct a community-led and project-specific Indigenous Knowledge study so BNDN can evaluate the impacts the project will have on BNDN and so the results of the study may inform the project and its evaluation.</p> <p>II) BNDN requires all documents, including the HRMP to be updated based on the results of BNDN's Indigenous Knowledge Study. BNDN must be engaged on how its results are used to update the HRMP.</p>

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				<p>Therefore, any residual effects (i.e., destruction of Heritage Resources) is considered to be negligible. Further, HRMP includes feedback from Indigenous nations with demonstrated significant land use activities in and around the Project.</p> <p>As outlined in Denison's Indigenous Peoples Policy, Denison is committed to respecting Indigenous knowledge and values regarding environmental stewardship and Indigenous peoples' connection to the land, and to minimize potential effects, wherever possible.</p> <p>Please see Section 11.3.2 Influence of Indigenous Knowledge, Local Knowledge, and Engagement on the Assessment for Heritage Resources. The Section describes how field assistants from local Indigenous communities were involved with the HRIA baseline studies, allowing for in-field consultation during the assessment to make sure that areas deemed to have potential by the land users were surveyed.</p>	
8	BNDN (February 28, 2023)	Heritage Resources Management Plan 2022 (Canada North) – 5.1 1e & 1f	Comment #7: BNDN notes that there has been limited engagement of our Nation as part of the archaeological baseline studies undertaken at the site. The Wheeler River Project is within our Treaty and Ancestral Lands where our members have deep ancestral ties and continue to exercise our rights to this day. As stewards of the land since time immemorial and holders of both Treaty and Aboriginal rights in the Project area, Denison must engage with us as partners on their activities on our lands. This includes their planning and decision-making	<p>Please see Section 11.3.2 Influence of Indigenous Knowledge, Local Knowledge, and Engagement on the Assessment for Heritage Resources. The Section describes how field assistants from local Indigenous communities were involved with the HRIA baseline studies, allowing for in-field consultation during the assessment to make sure that areas deemed to have potential by the land users were surveyed.</p> <p>Even the most thorough investigations may not identify all archaeological materials that may be present. Denison advises that if unanticipated archaeological materials or features are encountered as a result of construction or reclamation activities, all work in the immediate area should cease and the Heritage Conservation Branch and local authorities (if applicable) contacted.</p>	<p><b>Not addressed.</b></p> <p>Denison's engagement efforts related to archaeology have been deficient. No representatives from BNDN were involved in field assessments nor has BNDN Indigenous Knowledge been considered.</p> <p>The project is located within BNDN's treaty and ancestral lands where members have deep ancestral ties and continue to exercise rights to this day. Most archaeological material in Canada is Indigenous in origin; there is a significant chance that any archaeological material found on site derives from BNDN ancestors. BNDN has inherent</p>



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			<p>related to archaeological materials to which our members have ancestral and spiritual ties.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>Indigenous communities should be consulted and engaged in decision making rather than merely informed if the archaeological material is expected to be Indigenous in origin.</li> </ul> <p>See Section 4.1 for additional information on this topic (p. 12-14).</p>		<p>rights to its cultural heritage, as affirmed by UNDRIP.</p> <p>The proponent must commit to engaging Indigenous Nations, including BNDN in decision making related to Indigenous archaeological material and sites rather than merely informing these nations.</p>
9	BNDN (February 28, 2023)	Heritage Resources Management Plan 2022 (Canada North) – 5.1 7	<p>Comment #8: Given the Ancestral and Treaty ties our members have to the project area, our members have valuable knowledge and context to inform the Heritage Resource Impact Assessment (HRIA) for the Project that must be considered prior to being reviewed or approved by any regulatory body.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>The draft HRIA should be reviewed by BNDN and other impacted Indigenous Nations prior to being submitted for regulatory approval.</li> </ul> <p>See Section 4.1 for additional information on this topic (p. 12-14).</p>	<p>Denison's engagement with BNDN is consistent with the identification of BNDN as an Indigenous Community who has expressed an interest in the Project. However, Denison understands this information from BNDN. As such, over the past year(s), Denison has met with BNDN and has respectfully requested further information from BNDN in respect to the land use activities to occurring in and around the Project, in order to more meaningfully understand the potential for adverse impacts to BNDN and therefore consider the potential for further studies and / or integration into the EIS of such information. Denison remains of the perspective that receipt of this information from BNDN is a necessary first step in this process, and has not received information in this regard to date.</p> <p>Project effects have been mitigated for the most intensive resource user(s), irrespective of affiliation.</p> <p>Denison continues to work with its Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, Denison has committed to collaborating with English River First Nation</p>	<p><b>Not Addressed.</b></p> <p>Denison's response does not address the request put forward by BNDN to be given an opportunity to review the draft HRIA.</p> <p>Further, while the proponent has requested Indigenous Knowledge from BNDN, they have not made any resources available for BNDN to collect it, nor has the company engaged in any efforts to sign any agreements that provide assurances around confidentiality. BNDN lacks capacity and requires such resources and assurances to be able to provide Indigenous Knowledge; further, it is standard procedure for proponents to provide such financial capacity.</p>

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				<p>and Kineepik Métis Local on a community specific monitoring regime, suited to each of their interests and needs, in an agreed-upon fashion. Denison is committed to continual improvement in relation to such collaborative monitoring programs, in order to adapt to areas of interest which can change over time. It is expected that the data collected through such monitoring regimes would also be relevant to other Indigenous nations who may have interest in the Project.</p> <p>Following the implementation of the mitigation measures outlined in the Heritage Resource Management Plan (HRMP), the likelihood of residual effects is considered low and residual effects on Heritage Resources will occur infrequently and can be mitigated with the HRMP. Known archaeological resources identified in the Project Area were deemed to have low potential for archaeological interpretation and additional work or mitigation measures were not required for the sites; the Heritage Conservation Branch had no further concerns with these sites and work could proceed as planned. Should unknown archaeological and cultural resources be identified during the Project, effects will be mitigated using the HRMP. While effects to archaeological resources are irreversible, they can be mitigated by following the HRMP, by either avoiding additional damage to the resource by creating a buffer zone around the site, or by assessing the resource according to The Heritage Property Act to enable the full interpretation of the site before continuing with work. Furthermore, based on the low occurrence of known Heritage Resources in the Project Area (two), and the location of the Heritage Resources (near waterbodies, along an existing trail and away from the main developments), there is a low potential for the identification or disturbance of previously unknown archaeological sites throughout the life of the Project. Therefore, any residual effects (i.e., destruction of Heritage</p>	<p>I) The draft HRIA should be reviewed by BNDN and other impacted Indigenous Nations prior to being submitted for regulatory approval.</p> <p>II) BNDN requires capacity funding from the proponent to conduct a community-led and project-specific Indigenous Knowledge study so BNDN can evaluate the impacts the project will have on BNDN and so the results of the study may inform the project and its evaluation.</p>

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				<p>Resources) is considered to be negligible. Further, HRMP includes feedback from Indigenous nations with demonstrated significant land use activities in and around the Project.</p> <p>As outlined in Denison's Indigenous Peoples Policy, Denison is committed to respecting Indigenous knowledge and values regarding environmental stewardship and Indigenous peoples' connection to the land, and to minimize potential effects, wherever possible.</p> <p>Please see Section 11.3.2 Influence of Indigenous Knowledge, Local Knowledge, and Engagement on the Assessment for Heritage Resources. The Section describes how field assistants from local Indigenous communities were involved with the HRIA baseline studies, allowing for in-field consultation during the assessment to make sure that areas deemed to have potential by the land users were surveyed.</p>	
10	BNDN (February 28, 2023)	Heritage Resources Management Plan 2022 (Canada North) – 5.1.1	<p>Comment #9: Discerning archaeological artifacts/ecofacts is difficult at times even to the trained eye; consequently, it is important to undergo training to understand what you could be looking for.</p> <p>Request/recommendation:</p> <p>a) Staff should undergo training regarding the cultural material they may encounter while on site</p> <p>b) BNDN and other Indigenous communities should be invited to attend this training</p> <p>See Section 4.1 for additional information on this topic (p. 12-14).</p>	<p>Section 5.1.1 describes how all staff working on the Project should be informed of the possibility that they could encounter archaeological resources during their work or leisure time, which will include the proper procedure to follow in the case of a chance find. This could be facilitated by a short archaeological education section in the employee orientation, outlining the types of sites and artifacts that could be encountered in the area, as well as what to do when a potential artifact or site is found. If the chance find is deemed to be an archaeological site, then an HRIA is required and a qualified archaeologist must complete the assessment.</p> <p>Section 11.3.5 Mitigation Measures describes the management of archaeological resources and includes the assessment of the discovery by a qualified archaeologist and mitigation measures including avoidance of the site, shovel testing, systematic and intensive shovel testing, excavation, and/or construction monitoring. The HRMP</p>	<p><b>Not Addressed.</b></p> <p>i) Stronger language must be used to ensure archaeological education does occur as part of staff orientation. The proponent must commit to the requirement that staff undergo training by a qualified archaeologist regarding the cultural material they may encounter while on site as part of staff orientation.</p> <p>BNDN requires confirmation that BNDN and other impacted Indigenous Nations will be</p>

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				outlines mechanisms for Indigenous engagement including the communities and implementation of appropriate cultural protocols.	invited to attend this training. The project is located in BNDN's treaty and ancestral lands; given that no Indigenous Knowledge research has been completed to date for this project by BNDN, there is significant concern that ancestral materials will be encountered but not identified, leading to irreparable damage.
11	BNDN (February 28, 2023)	Heritage Resources Management Plan 2022 (Canada North) – 5.3	<p>Comment #10: In numerous instances the Heritage Resources Management Plan (HRMP), Denison has used noncommittal language to describe future Indigenous engagement related to heritage resources. BNDN notes that engagement of impacted Nations is essential for proper heritage resource management and as such the language in the HRMP should reflect the necessity of this engagement.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>Throughout the HRMP, Denison must change the language of "should" to "will" where appropriate. For example: management options will be presented to the applicable Indigenous communities for feedback and will include consultation.</li> </ul> <p>See Section 4.1 for additional information on this topic (p. 12-14).</p>	The Heritage Resources Management Plan will be revisited for use of language 'should' to 'will' where appropriate.	<p><b>Partially addressed.</b></p> <p>The proponent should report back to BNDN regarding how the language was updated and whether there were any instances the proponent did not update the language from 'should' to 'will'; justification should be provided in these instances.</p>

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12	BNDN (February 28, 2023)	Heritage Resources Management Plan 2022 (Canada North) – 5.3.1	<p>Comment #11: BNDN notes that Section 5.3.1 does not confirm that impacted Indigenous Nations will have the opportunity to participate in future archaeological fieldwork. While BNDN understands that many impacted Nations will have arrangements directly with Denison to facilitate member participation, this should additionally be made available to all impacted Indigenous Nations as part of best practices at the Project.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>In addition to any provisions developed in a Project Agreement between BNDN and Denison for the Wheeler River Project, Denison should include a clause that confirms that all impacted Indigenous communities will be invited to have monitors participate in any additional fieldwork and that Denison will provide capacity funding for Nations that wish to participate.</li> </ul> <p>See Section 4.1 for additional information on this topic (p. 12-14).</p>	<p>As the Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, Denison has committed to collaborating with English River First Nation and Kineepik Métis Local on a monitoring regime, suited to each of their interests and needs. As part of these programs, Denison and the Indigenous community of ERFN and KML will be sharing information in an agreed-upon fashion. It is expected that the data collected through such monitoring regimes as described above would also be relevant to other Indigenous nations who may have interest in the Project. Denison does not anticipate separate funding for BNDN at this time.</p> <p>BNDN will be informed throughout the monitoring program design and implementation process. Monitoring program design and implementation will be guided by the following principles: meet regulatory requirements, confirm the effectiveness of mitigation measures and predictions made in the assessment, implementing adaptive management (if/where applicable) to reduce effects during the lifetime of the Project, and will ensure that spatial boundaries are sufficiently extensive to measure EIS predictions.</p>	<p><b>Not addressed.</b></p> <p>The project is located within BNDN's treaty and ancestral lands where members have deep ancestral ties and continue to exercise rights to this day. Most archaeological material in Canada is Indigenous in origin; there is a significant chance that any archaeological material found on site derives from BNDN ancestors. BNDN has inherent rights to its cultural heritage, as affirmed by UNDRIP.</p> <p>The proponent must engage with BNDN to discuss opportunities for BNDN to participate in archaeological work moving forward.</p>
13	BNDN (February 28, 2023)	Section 13.0	<p>Comments #12, 14 and 15: BNDN is not included as a Local Study Area (LSA) Community despite being closer to the Project than other LSA</p>	<p>Spatial boundaries for the Economy VC were selected to reflect the geographic areas where economic impacts from the Project are likely to be detectable and measurable. These impacts are expected to be driven primarily by the</p>	<p><b>Not Addressed.</b></p> <p>BNDN is still not being considered a Local Study Area (LSA) community despite being</p>

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			<p>Communities. The Project is situated on BNDN's ancestral lands. BNDN members currently and historically use the LSA for harvesting (commercial and personal) and ceremonial purposes.</p> <p>Without the LSA Community designation, BNDN members are less likely to be employed or trained through the Project. BNDN members are not entitled to priority training and employment provisions from Denison on the Project. Further, BNDN businesses and partnerships are not entitled to priority procurement provisions from Denison on the Project.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN must be identified as a LSA Community. BNDN members and businesses must be eligible for LSA priority status for employment, training, and contracting opportunities. The EIS should be revised accordingly.</li> <li>A formal agreement between BNDN and Denison is required to outline socioeconomic offsetting measures and benefits should the Project move forward. This must include ways for BNDN</li> </ul>	<p>relationship and interactions between the Project and the COI. Economic benefits surrounding Project employment (including income and training) are likely to be targeted toward the communities identified within the spatial boundaries. Economic impacts extending beyond the LSA are likely to be diffused and undetectable within the broader economy. The spatial boundaries were selected based on the consideration of communities where Project recruitment is likely to be prioritized, consideration of previous EAs conducted in the region, and consideration of information shared through key persons in the interview program. The LSA for the assessment of the economy includes the following communities: ERFN (including Indian Reserve Wapachewunak 192D and Indian Reserve La Plonge 192) and Patuanak, Northern Hamlet (Patuanak); Pinehouse Lake, Northern Village; and Beauval, Northern Village.</p> <p>Denison, through a Human Resource Development Plan, will initially prioritize Indigenous and non-Indigenous communities in the LSA in terms of employment and training opportunities (anticipated to be in institutions in northern Saskatchewan) and will work with the leadership of these communities to assist in determining hiring and training practices during all phases of the Project, which could include such items as on-the-job training and career counselling to help with advancement from foundational positions, advance sharing of job qualification requirements, clearly identifying training requirements and working with various training institutions to make sure such appropriate training is available, and creation of scholarship and support programs. Priority for employment and training will then focus on Indigenous and non-Indigenous residents of the RSA and then beyond the RSA.</p>	<p>closer to the Project than other LSA communities. Without the LSA Community designation, BNDN members are less likely to be employed or trained through the Project. BNDN members are not entitled to priority training and employment provisions from Denison on the Project. Further, BNDN businesses and partnerships are not entitled to priority procurement provisions from Denison on the Project. This is unacceptable.</p> <p>Denison and BNDN must work together to develop an Accommodation Agreement (e.g. Impact Benefit Agreement or Mutual Benefit Agreement) in order to accommodate for the impacts of the Project on BNDNs rights, interests, and the environment.</p>



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			<p>businesses and member owned businesses to participate in the Project.</p> <p>Denison references a Human Resource Development Plan (HRDP) as a mitigation measure to ensure local and regional community members are hired in priority. However, Denison does not provide sufficient details to allow Birch to assess the adequacy of the HRDP.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN requests the ability to review and comment on Denison's Human Resource Development Plan to provide input and recommendations to encourage community participation and employment in the Project.</li> </ul> <p>See Section 4.2 for additional information on this topic (p. 19-23).</p>		
14	BNDN (February 28, 2023)	Section 12.0 and 13.0	<p>Comment #13: There is no BNDN specific Indigenous Knowledge or socioeconomic data presented in the EIS.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>Denison must conduct Indigenous Knowledge and Community well-being Study (or similar) to gather BNDN specific information. These</li> </ul>	Denison's engagement with BNDN is consistent with the identification of BNDN as an Indigenous Community who has expressed an interest in the Project. However, Denison understands this information from BNDN. As such, over the past year(s), Denison has met with BNDN and has respectfully requested further information from BNDN in respect to the land use activities to occurring in and around the Project, in order to more meaningfully understand the potential for adverse impacts to BNDN and therefore consider the potential for further studies and /	<p><b>Not Addressed.</b></p> <p>While the proponent has requested Indigenous Knowledge from BNDN, they have not made any resources available for BNDN to collect it, nor has the company engaged in any efforts to sign any agreements that provide assurances around confidentiality. BNDN lacks capacity and requires such resources and assurances to</p>

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			<p>studies will allow for a more fulsome assessment of the Project on BNDN rights and interests. Additionally, BNDN specific data will enhance Denison's baseline data and help to inform mitigation and monitoring measures.</p> <p>See Section 4.2 for additional information on this topic (p. 19-22).</p>	<p>or integration into the EIS of such information. Denison remains of the perspective that receipt of this information from BNDN is a necessary first step in this process, and has not received information in this regard to date.</p> <p>Spatial boundaries for the Economy VC were selected to reflect the geographic areas where economic impacts from the Project are likely to be detectable and measurable. These impacts are expected to be driven primarily by the relationship and interactions between the Project and the COI. Economic benefits surrounding Project employment (including income and training) are likely to be targeted toward the communities identified within the spatial boundaries. Economic impacts extending beyond the LSA are likely to be diffused and undetectable within the broader economy. The spatial boundaries were selected based on the consideration of communities where Project recruitment is likely to be prioritized, consideration of previous EAs conducted in the region, and consideration of information shared through key persons in the interview program. The LSA for the assessment of the economy includes the following communities: ERFN (including Indian Reserve Wapachewunak 192D and Indian Reserve La Plonge 192) and Patuanak, Northern Hamlet (Patuanak); Pinehouse Lake, Northern Village; and Beauval, Northern Village.</p> <p>The spatial boundaries selected for Community Well-being were chosen because they permit baseline characterization in sufficient detail to enable potential interactions between the Project and the well-being of the community. These boundaries were developed in consideration of where interactions are likely to occur. The spatial boundaries were derived based on the consideration of communities where Project recruitment is likely to be prioritized, consideration of previous EAs conducted in the region, and consideration of information</p>	<p>be able to provide Indigenous Knowledge; further, it is standard procedure for proponents to provide such financial capacity.</p> <p>The project is located in a critically important area for BNDN; Cree Lake and surrounding areas fosters important caribou habitat that BNDN members rely on; impacts to these animals and areas will undoubtedly impact BNDN's well-being. However, this and related issues have not been considered in the project. Further, BNDN carries out economic activities in within the study area; however, the economic impacts of the project on BNDN has not been assessed.</p> <p>I) BNDN requires capacity funding from the proponent to conduct a community-led and project-specific Indigenous Knowledge study so BNDN can evaluate the impacts the project will have on BNDN and so the results of the study may inform the project and its evaluation.</p> <p>II) BNDN requires the EIS to be updated based on the results of BNDN's Indigenous Knowledge study – including the sections on economy and community well-being VCs. BNDN must be engaged on how its results are used to update the EIS.</p>

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				shared through key persons in the interview program. The LSA for the Community Well-being VC includes ERFN (including Indian Reserves Wapachewunak 192D and La Plonge 192) and Patuanak, Northern Hamlet; Pinehouse Lake, Northern Village; and Beauval, Northern Village.	
15	BNDN (February 28, 2023)	Section 12.0	<p>Comment #16: While EIS does consider the effects of population changes related to the Project on social adaptability, demand for services and housing, it does not address the full range of potential impacts associated with a transient workforce. Significant research has been conducted to demonstrate the negative impacts of remote workers and work camps on Indigenous women and girls. This must be considered in the EIS.</p> <p>The EIS must include an assessment of all potential effects of a transient workforce and changes to population dynamics, including those disproportionately experienced by Indigenous women and girls, and other segments of the population. This must incorporate findings of research like the 2017 study completed by Lake Babine Nation and Nak'azdli Whut'en (Indigenous Communities and Industrial Camps), and/or related research in the context of the LSA.</p>	<p>Both the construction and operation camps will operate on a fly-in/out basis, meaning the opportunities for interactions between the workforce and Indigenous communities are limited as workers will be transported by air directly to the site. Section 12.2.4.2.1 provides the actions to minimize the extent the Project contributes to in- and out- migration in the LSA, including:</p> <ul style="list-style-type: none"> <li>• Denison will initially prioritize the COI in terms of employment opportunities and will work with the leadership of these communities to assist in determining hiring practices during all phases of the Project. Priority for hiring will then focus on Indigenous and non-Indigenous residents of the RSA and then beyond the RSA.</li> <li>• Employees will not be permitted to commute to the site by any means other than the fly-in/fly-out worker rotation systems (i.e., they cannot drive to the site).</li> <li>• Pick-up and drop-off points are being planned at two locally central points in communities within the LSA, at one additional site in Saskatchewan (i.e., Saskatoon), and potentially at other locations.</li> <li>• Housing for workers will be provided at the camps with free accommodations and meals.</li> </ul> <p>Although difficult to predict, communities in the LSA are not expected to experience any substantial population growth or change in demographics as a result of the Project, particularly with mitigation measures identified. Although the potential exists for some individuals to return to the COI, it is anticipated that this would be difficult to discern from existing in-/out-migration rates. As population</p>	<p><b>Not Addressed.</b></p> <p>Fly-in/fly-out (FIFO) work camps for mining operations in Canada do not eliminate interactions between the workforce and Indigenous communities and the social problems that arise as a result. The FIFO approach may create new issues. The discussion and mitigation measures the proponent proposes does not include a fulsome analysis of all the potential effects of transient workforce and population dynamics, and understates the potential impacts on community well-being. The proponent's response furthermore does not discuss nor address BNDN's concern regarding the impacts of the project on Indigenous women and girls, and other segments of the population.</p> <p>I) BNDN requires the proponent to include a fulsome assessment of the potential impacts of the transient workforce and the FIFO approach on Indigenous communities, including on Indigenous women and girls</p>

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			See Section 4.2 for additional information on this topic (p. 19-21).	and demographics are not expected to experience any change as a result of the Project, this pathway will not be carried forward to the residual effects assessment.	and other segments of the population.  The EIS must incorporate the findings of research like the 2017 study completed by Lake Babine Nation and Nak'azdli Whut'en (Indigenous Communities and Industrial Camps), and/or related research in the context of the LSA.
16	BNDN (February 28, 2023)	Section 12.0 and 13.0	<p>Comment #17: BNDN notes that no specific management or monitoring plan has been included in the EIS documentation related to the verification of residual socio-economic impacts, both positive and negative, for the local economy.</p> <p>Request/recommendation:</p> <p>a) Denison must develop a Socio-Economic Monitoring Plan for the life of the Project to verify the effects assessment included in the EIS and to be included in the Project's approach to adaptive management. This Plan would include an approach, co-developed with Indigenous groups in the LSA (including BNDN), to monitoring the realization of the benefits and impacts of the Project (e.g., employment and procurement targets, training and capacity building, community investments, etc.) as mitigation and enhancement measures are implemented. Monitoring and</p>	<p>As the Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, Denison has committed to collaborating with English River First Nation and Kineepik Métis Local on a monitoring regime, suited to each of their interests and needs. As part of these programs, Denison and the Indigenous community of ERFN and KML will be sharing information in an agreed-upon fashion. It is expected that the data collected through such monitoring regimes as described above would also be relevant to other Indigenous nations who may have interest in the Project. Denison does not anticipate separate funding for BNDN at this time.</p> <p>BNDN will be informed throughout the monitoring program design and implementation process. Monitoring program design and implementation will be guided by the following principles: meet regulatory requirements, confirm the effectiveness of mitigation measures and predictions made in the assessment, implementing adaptive management (if/where applicable) to reduce effects during the lifetime of the Project, and will ensure that spatial boundaries are sufficiently extensive to measure EIS predictions.</p>	<p><b>Not Addressed.</b></p> <p>Denison does not commit to monitoring BNDN specific socio-economic indicators as part of the Project and continues to exclude BNDN from fulsome consultation and engagement in favour of other Indigenous groups.</p> <p>Denison mischaracterizes BNDN as not being part of "Indigenous Communities of Interest with reserves and residential communities most proximal to the Project". BNDN is located closer (232 km) to the Project than Kineepik Métis Local (235 km). Further, the Project is located on BNDN's Treaty Lands (Treaty 10), whereas Kineepik Métis Local has no Treaty lands or Treaty rights. As such, BNDN must be treated as a Indigenous Community of Interest with reserves and residential communities most proximal to the Project, not as some secondary community. Denison's position of BNDN requiring consultation and accommodation that is less meaningful than KML is unacceptable and wrong.</p> <p>Denison and BNDN must work together to develop an Accommodation Agreement (e.g.</p>

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			<p>subsequent regular evaluation would allow for the real-time adjustment of targets and/or an approach to adjusting enhancement measures or identifying offsetting benefits where targets are not met.</p> <p>See Section 4.2 for additional information on this topic (p. 19-21).</p> <p>[Additional questions on this topic directed to regulators or government entities are included in the CNSC table]</p>		Impact Benefit Agreement or Mutual Benefit Agreement) in order to accommodate for the impacts of the Project on BNDNs rights, interests, and the environment. This will include provisions to monitor socioeconomic indicators.
17	BNDN (February 28, 2023)	Section 12.0 and 13.0	<p>Comment #17: BNDN notes that no specific management or monitoring plan has been included in the EIS documentation related to the verification of residual socio-economic impacts, both positive and negative, for the local economy.</p> <p>Request/recommendation:</p> <p>b) The Crown must include the development of a Socio-Economic Monitoring Plan as a condition of approval for the Project.</p> <p>See Section 4.2 for additional information on this topic (p. 19-21).</p> <p>[Additional questions on this topic directed to the proponent are included in the CNSC table]</p>	<p>As the Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, Denison has committed to collaborating with English River First Nation and Kineepik Métis Local on a monitoring regime, suited to each of their interests and needs. As part of these programs, Denison and the Indigenous community of ERFN and KML will be sharing information in an agreed-upon fashion. It is expected that the data collected through such monitoring regimes as described above would also be relevant to other Indigenous nations who may have interest in the Project. Denison does not anticipate separate funding for BNDN at this time.</p> <p>BNDN will be informed throughout the monitoring program design and implementation process. Monitoring program design and implementation will be guided by the following principles: meet regulatory requirements, confirm the effectiveness of mitigation measures and predictions made in the assessment, implementing adaptive management (if/where applicable) to reduce effects during the lifetime of the Project, and will ensure</p>	<p><b>Not Addressed.</b></p> <p>Denison does not commit to monitoring BNDN specific socio-economic indicators as part of the Project and continues to exclude BNDN from fulsome consultation and engagement in favour of other Indigenous groups.</p> <p>Denison mischaracterizes BNDN as not being part of "Indigenous Communities of Interest with reserves and residential communities most proximal to the Project". BNDN is located closer (232 km) to the Project than Kineepik Métis Local (235 km). Further, the Project is located on BNDN's Treaty Lands (Treaty 10), whereas Kineepik Métis Local has no Treaty lands or Treaty rights. As such, BNDN must be treated as a Indigenous Community of Interest with reserves and residential communities most proximal to the Project, not as some secondary</p>

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				that spatial boundaries are sufficiently extensive to measure EIS predictions.	community. Denison's position of BNDN requiring consultation and accommodation that is less meaningful than KML is unacceptable and wrong.  Denison and BNDN must work together to develop an Accommodation Agreement (e.g. Impact Benefit Agreement or Mutual Benefit Agreement) in order to accommodate for the impacts of the Project on BNDNs rights, interests, and the environment. This will include provisions to monitor socioeconomic indicators.
18	BNDN (February 28, 2023)	Appendix 9B Section 2.5.1 Appendix 8E Table 4	<p>Comment #18: In several instances in the draft EIS Denison has noted that Indigenous Nations are concerned with the possibility of mercury contamination from mining operations. BNDN shares these concerns with other Indigenous Nations. Due to the very low concentrations of mercury present in the Phoenix deposit, Denison has not meaningfully studied the potential impacts the Project may have on altering mercury biogeochemistry in the downstream environment.</p> <p>BNDN notes that background mercury concentrations can be elevated in many unexpected and remote locations due to atmospheric deposition (often due to coal plants) (Jackson, 1997). BNDN is very concerned that</p>	<p>Although baseline concentrations of total mercury in sediment were not collected during the baseline program, Denison will collect background information pertaining to sediment total and methyl mercury from LSA lakes and rivers prior to site development.</p> <p>As indicated in draft EIS Section 8.4.6.1, Residual Effects Characterization, mercury is not associated with the local geology and is not expected to be released in the effluent at measurable levels and was therefore not identified as a COPC. Denison notes that there is potential for increased methylmercury production in the receiving environment under a certain combination of factors to which the Project may contribute; however, prediction of methylmercury production is not practical. Denison commits to monitoring mercury and methylmercury in the aquatic environment over the life of the Project to determine the potential changes in mercury concentrations in fish tissue over time. As the Project advances and operational monitoring is underway, Denison will assess health risks from fish consumption by comparing fish tissue data collected during operation from the monitoring program against Health Canada's mercury guideline of 0.5 ug/g wet weight.</p>	<p><b>a. Partially Addressed</b></p> <p>BNDN notes that Denison has committed to monitoring total and methyl mercury in lakes and rivers in the LSA prior to site development and over the life of the Project. However, as stated in the original comment, monitoring of <i>wetlands</i> is of high importance for BNDN. Wetlands are a well-known source of mercury accumulation, with conditions that favour the development of methylmercury (Zhang et al., 2023). Where developments cause changes to these wetlands, such as altered water levels, it can precipitate changes that cause increases in the discharge of mercury to downstream environments (Ullrich, Tanton, &amp; Abdrashitova, 2001). For this reason, omitting wetlands from mercury monitoring is a glaring gap that must be addressed.</p>



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			<p>Denison has not analyzed for mercury as part of their baseline soil geochemistry assessments for the Project, especially in wetlands downstream of the Project. Mercury concentrations in wetland soils are sensitive to changes in water chemistry that can lead to increased mercury methylation. This is especially acute from increases in nutrients and sulphates which can active sulfate reducing microorganisms that methylate mercury (Liu, Li, &amp; Cai, 2012). Table 4 of Appendix 8e shows that the effluent discharged to Whitefish Lake will have mercury concentrations almost 5,700 times background concentrations. This dramatic increase in sulfate loading to Whitefish Lake may not exceed water quality objectives unto itself but may be sufficient to meaningfully change mercury biogeochemistry in downstream wetlands.</p> <p>BNDN is very concerned with the complete lack of assessment and analysis of baseline mercury concentrations and the potential changes to mercury cycling that could be induced by the Project.</p> <p>Request/recommendation:</p> <p>a) BNDN requests that Denison undertake baseline studies of</p>	<p>This is a human health risk-based maximum permissible concentration. Mercury data presented throughout the draft EIS represents total mercury. Denison agrees to include methylmercury as part of the constituents monitored in fish throughout all project phases.</p> <p>Engagement on licensing requirements, such as the development of the environmental monitoring program and the associated monitoring regime will occur to support Project permitting and licensing efforts.</p>	<p>Ullrich, S. M., Tanton, T. W., &amp; Abdrashitova, S. A. (2001). Mercury in the aquatic environment: a review of factors affecting methylation. <i>Critical reviews in environmental science and technology</i>, 31(3), 241-293.</p> <p>Zhang, J., Li, C., Tang, W., Wu, M., Chen, M., He, H., ... &amp; Zhong, H. (2023). Mercury in wetlands over 60 years: research progress and emerging trends. <i>Science of the Total Environment</i>, 869, 161862.</p> <p><b>b. Not Addressed</b> Comments for regulators will be addressed through future engagement with the appropriate regulator.</p> <p><b>c. Not Addressed.</b> BNDN requires active involvement in the mercury monitoring program design and implementation. BNDN's involvement must be formalized in a mutual benefits agreement between Denison and BNDN for the Wheeler River Project.</p>

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			<p>mercury concentrations in soils, with a focus on baseline concentrations of mercury in organic wetland soils downstream of the project. Note that mercury sampling should sample total mercury and methylmercury in all analyses, as well as porewater total mercury and methylmercury. The study design and implementation should be undertaken collaboratively with BNDN.</p> <p>b) BNDN recommends that the CNSC requires Denison to undertake a baseline assessment of mercury in soils (with a focus on wetlands) prior to construction of the Project. This may be established as a condition of approval for the Project.</p> <p>c) Depending on the findings of the baseline mercury in soils and wetlands studies, the CNSC should include a condition of approval on the Project that requires Denison to monitor mercury biogeochemistry in the receiving environment over the life of mine.</p> <p>See Section 4.3 for additional information on this topic (p. 25-28).</p> <p>[Additional questions on this topic directed to regulators or government entities are included in the CNSC table]</p>		

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19	BNDN (February 28, 2023)	Appendix 7C Section 3.5.6.2.1 Figures 7.6-10 and 7.6-11	<p>Comment #19: Figure 7.6-10 and 7.6-11 of the draft EIS show the results of Denison's modelling of uranium mobility and adsorption from the ore body following the decommissioning of the mine. The figures show that the model indicates that all dissolved uranium will be effectively removed from solution within a short distance of the orebody via adsorption to clays present in the bedrock. In Section 3.5.6.2.1 of Appendix 7c of the draft EIS Denison notes that there is very limited literature available on uranium fate and transport, especially in similar environments to the Wheeler River Project. Denison's uranium speciation model relies almost entirely on a single academic article studying the partitioning of uranium in the alteration halo surrounding the Cigar Lake uranium deposit. Of very important note is that this paper is focused on the pre-mining environment at Cigar Lake and does not examine how uranium partitioning may be dramatically altered by ISR mining. Health Canada published a document on uranium in drinking water in 2017 literature review of uranium mobility, complexation and chemistry in groundwater which documents the widely varying</p>	<p>Denison's engagement with BNDN is consistent with the identification of BNDN as an Indigenous Community who has expressed an interest in the Project. As the Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, Denison has committed to collaborating with English River First Nation (ERFN) and Kineepik Métis Local (KML) on details and updates to the decommissioning plan which includes mining area remediation plans and associated post-decommissioning modelling of groundwater from the remediated mining area, suited to each of their interests and needs. As part of these updates, Denison and the Indigenous community of ERFN and KML will be sharing information in an agreed-upon fashion. It is expected that updates to the decommissioning plan and groundwater modelling would also be relevant to other Indigenous nations who may have an interest in the Project. As such, Denison will not be developing a process agreement with the BNDN to address concerns raised about pertaining to long-term groundwater quality for the Wheeler River Project. This comment is also applicable to other comments where the same request was made by the BNDN. The balance of this response pertains to groundwater quality and the numerical groundwater model presented in draft EIS will focus on the technical content of the concerns raised.</p> <p>Denison's groundwater SME and author of the modelling report (Appendix 7C) acknowledges that the modelling report did not include a lengthy discussion of uranium speciation and mobility. However, the reactive transport modelling done using the PHREEC geochemical code was carefully informed by relevant literature, and was certainly not restricted to consideration of one study (Cigar Lake). In Section 3.5.3 of Appendix 7C we reference important studies pertaining to uranium complexation in solution by carbonate species (Guillaumont et al. 2003; Gorman-Lewis</p>	<p><b>a. Not Addressed</b> – Denison mischaracterizes BNDN as not being part of "Indigenous Communities of Interest with reserves and residential communities most proximal to the Project". BNDN is located closer (232 km) to the Project than Kineepik Métis Local (235 km). Further, the Project is located on BNDN's Treaty Lands (Treaty 10), whereas Kineepik Métis Local has no Treaty lands or Treaty rights. As such, BNDN must be treated as a Indigenous Community of Interest with reserves and residential communities most proximal to the Project, not as some secondary community. Denison's position of BNDN requiring consultation and accommodation that is less meaningful than KML is unacceptable and wrong.</p> <p>Denison and BNDN must work together to develop an Accommodation Agreement (e.g. Impact Benefit Agreement or Mutual Benefit Agreement) in order to accommodate for the impacts of the Project on BNDNs rights, interests, and the environment. This will include provisions to monitor groundwater and surface water; and to keep consult with BNDN as an impacted First Nation.</p> <p><b>b. Not Addressed</b> – BNDN notes that Denison did not agree to bench scale testing as requested. BNDN further notes that the position Denison has taken around the appropriateness of water quality modelling has to be taken at Denison's word. BNDN</p>

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			<p>behaviour of uranium in groundwater depending on redox conditions, pH, pressure, and other ions available for complexation which may increase or decrease uranium mobility (Health Canada, 2017).</p> <p>Uranium will be present in extremely high concentrations (100 mg/l) in the restoration solution. Many other anions and cations which uranium is known to form complexes with will also be present in the solution at very high concentrations. The limited literature upon which Denison has developed their models to predict uranium mobility post-decommissioning is insufficient to confidently assert that the very concentrated restoration solution will behave as predicted. Uranium is a common groundwater contaminant around the world and is known to be stable in dissolved forms in groundwater in many locations. Furthermore, some studies have indicated that the effectiveness of adsorption as a mechanism for attenuation of uranium in solution is significantly overstated, especially in environments where there is competition from other ions, as there will be in the restoration</p>	<p>et al., 2008; Grenthe et al., 2020) and ternary complexes of uranium with calcium and magnesium and carbonates in solution (Dong and Brooks, 2006). These complexation reactions were added into the Project-specific PHREEQC database developed as part of the work presented in Appendix 7C. The database was updated to include solution-phase complexes of uranium in Guillaumont, 2003, which is a comprehensive summary of known reaction constants for uranium with dissolved-phase ligands. Further, the consideration of sorption of uranium-carbonate complexes to quartz, geothite and illite is shown in Appendix E of Appendix 7C, and relies on information from multiple publications. The reactive transport modelling was done using piChem (FELOW + PHREEQC) because of the ability of that approach to carefully consider speciation of uranium, and the potential interactions of uranium with other species in solution.</p> <p>The comment to which the BNDN refer in Section 3.5.6.2.1 of Appendix 7C is: "[t]o the best of our knowledge, there is very little information published about the solid-phase speciation of uranium and other constituents associated with ore bodies and the overlying and underlying rocks in the Athabasca basin". This is not speaking specifically to the speciation of uranium in the solid phase. Experimental work that provide information on solid-phase speciation include sequential extraction schemes and spectroscopic studies, such as recent work by Bayle et al., 2023 (<a href="https://pubmed.ncbi.nlm.nih.gov/37417589/">https://pubmed.ncbi.nlm.nih.gov/37417589/</a>). Research on the solid-phase speciation of uranium is not addressed in Health Canada (2017). As indicated, we were not able to find research pertaining to sequential extractions of spectroscopic studies of uranium in the solid phase for relevant materials/conditions. It is for this reason that we presented results of solid-phase uranium speciation in the available study by Percival 1989. It is acknowledged that</p>	<p>requires an opportunity to review the effluent quality models input and outputs, followed by a discussion between BNDN, Denison and the CNSC to have confidence that the modelling has been done in a manner that BNDN can trust that the findings are a reasonable forecast of what will occur when the mine operates. Future discussions on this matter should occur within the framework of a BNDN-Denison process agreement for the Project.</p>

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			<p>solution (Gandhi, Sampath, &amp; Maliyekkal, 2022).</p> <p>BNDN is very concerned that Denison has portrayed their groundwater contamination model in Appendix 7c with an inappropriate level of confidence given the level of uncertainty reasonably inferred from the lack of foundational literature relevant to the circumstances at Wheeler River and the well-understood complexity of uranium fate and transport in groundwater.</p> <p>It is not impossible to imagine that surface water contamination could eventually occur, especially given the exceptionally high concentrations of uranium in the restoration solution. By consenting to the Wheeler River Project, BNDN is supporting a process that will be irreversible once it commences and may be very difficult to manage should the underlying modeling assumption prove to be inaccurate by a significant margin. As a Nation whose members put a very high emphasis on the protection of groundwater resources, BNDN requires substantially greater reassurance through dialogue with Denison and further studies to have confidence that the Project</p>	<p>this study was for Cigar Lake. The relevance of the work for the Wheeler River Project is high.</p>	

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			<p>will not irreparably degrade the natural environment in our Ancestral Lands.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>Denison must develop a process agreement with BNDN to work through our concerns related to long-term groundwater contamination from the Project. This process agreement would lay out the pathway to obtaining BNDN consent for the Project through providing our Nation with confidence that the groundwater and surface water near to the project will not be irreparably contaminated. The process agreement will include additional studies and consultation activities with BNDN that Denison must undertake. The satisfaction of all terms in the process agreement would be defined by the signing of a Project Agreement between Denison and BNDN.</li> <li>BNDN recommends that Denison commit to funding bench-scale studies to validate the outputs from their FEFLOW and PHREEQC modelling. The bench-scale</li> </ul>		



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			studies should be undertaken by an independent academic. See Section 4.3 for additional information on this topic (p. 25-28).		
20	BNDN (February 28, 2023)	Section 7.6.2.1 Appendix 7C Section 4.6	<p>Comment #20: In Section 7.6.2.1 of the draft EIS, Denison mentions that they anticipate the outward migration of lixiviant as is observed at other ISR operations globally and has incorporated their assumed concentrations of metals and the extent of area affected by flare from the ISR operations. Section 4.6 of Appendix 7c states that the flare zone is expected to extend 11 to 13 m but have modelled with a "conservative 50 m flare zone.</p> <p>It is not clear how Denison derived their assessment that the flare zone would extend 11 to 13 m and that a 50 m flare zone is considered conservative for the purposes of modelling. BNDN requires further information to have confidence that the design is as conservative as the Proponent has suggested.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN requests that Denison provide further information on how the size of the area above the deposit affected by flare was calculated and how</li> </ul>	<p>Groundwater modelling and flow path analysis calibrated to field conditions have evaluated upward solution migration and demonstrated that the maximum height that injected fluids will migrate upwards from the ore zone during active mining is likely between 11 to 13 m (Section 2 of the draft EIS). For conservatism, a 50-m vertical zone above the deposit was assumed to be potentially disturbed by mining activities. Denison specified 50m flare threshold based on their commitment to maintain inward hydraulic gradients, and or adding extraction wells as necessary to limit the migration of the flare.</p> <p>With the engineered controls described above, flare is not anticipated above 11-13 m. However, the decision was made to assume 50% of the restored solution uniformly between 15 and 50 m above the mineralized zone because there will be a natural gradient from 100% restored solution to 0% restored solution (i.e., baseline conditions) over this distance. The uncertainty associated with this decision was addressed in the uncertainty analysis presented in Section 4.7 of Appendix 7C, where 100% restored solution was assumed to be present over the entire 50 m height above the ore zone. The results of the model under both scenarios was consistent: no water quality effects above groundwater screening criteria, apart from those that reflect natural conditions, in Whitefish Lake.</p> <p>Over the life of the Project, groundwater quantity and quality monitoring activities will be completed to assess the performance of various components of the Project associated with engineering mining designs and</p>	<p><b>Not Addressed.</b></p> <p>BNDN notes that the Proponent has not provided any reason that the flare is reasonably estimated to migrate 11 – 13m upwards. This number appears to be arbitrarily selected from BNDN's perspective. BNDN requests that the Proponent provide case studies from comparable sites (or other evidence) that justifies their estimated flare distance. Future discussions on this matter should occur within the framework of a BNDN-Denison process agreement for the Project.</p>

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			<p>they determined that 50% restoration solution was determined as the appropriate concentration to base water quality modelling.</p> <p>This item would be best addressed and resolved with BNDN through the process agreement to address BNDN's concerns related to long term groundwater contamination from the Project.</p> <p>See Section 4.3 for additional information on this topic (p. 25-28).</p>	<p>performance and infrastructure designs to protect groundwater. A detailed Groundwater Monitoring Plan (GWMP) will be prepared to support licensing. The GWMP will include an Excursion Contingency Plan, and measures for adaptive management. The GWMP will be informed by the understanding of existing groundwater conditions at the Project Area (Appendix 7-A), the reactive transport modelling of groundwater COPCs associated with the restored mining area (Appendix 7-C), and the commitments made within the Geology and Groundwater section of the EIS.</p> <p>Please refer to the first part of Denison's response to BNDN comment #19 in regard to BNDN's suggestion of a process agreement.</p>	
21	BNDN (February 28, 2023)	Appendix 7C Section 3.2.2.1	<p>Comment #21: Section 3.2.2.1 of Appendix 7C of the draft EIS describes the natural redox conditions in the ore zone as naturally reducing. The operation of the wellfield will result in the groundwater in the ore zone becoming oxidizing. Post decommissioning, the groundwater in the ore zone can be reasonably anticipated to return to baseline (reducing) redox conditions.</p> <p>BNDN notes that as redox conditions becoming increasingly reducing post closure, adsorption kinetics of contaminants adsorbed to clays could shift so that contaminants desorb from clays and are remobilized into solution. It is not clear to BNDN that the</p>	<p>Solution-phase concentrations of metals and uranium are what influence the desorption of these elements from clays over time; but the BNDN is correct that there may be hysteresis, or a kinetic component to desorption to equilibrium conditions. Re-establishment of reducing redox conditions - primarily through scavenging of residual oxidant with pyrite - with progressive movement of natural groundwater through the mining area in the Decommissioning period is anticipated to result in concentrations of metals and uranium at baseline conditions because the same mineral phases as are present now are expected to control the solubility of those elements. Secondary minerals may influence concentrations for a small number of constituents. In all cases, concentrations of these elements will not exceed those assumed in the model.</p> <p>In the model as presented, desorption from clays was taken into account for protons that had sorbed to chlorite in the mining area as a sensitivity analysis. The desorption of protons did not have an adverse effect on the water</p>	<p><b>Not Addressed.</b></p> <p>Similar to comment 19b, BNDN requests the opportunity to review the modelling work completed by Denison prior to considering this comment satisfactorily addressed. This comment can be addressed simultaneously with comment 19b. This discussion should occur within the framework of a BNDN-Denison process agreement for the Project.</p>

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			<p>evolution of redox geochemistry and its implication on adsorption kinetics has been adequately considered by Denison.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN requests further information on how increasingly reducing groundwater conditions post decommissioning may impact adsorption kinetics of contaminants expected to adsorb to clays.</li> </ul> <p>This item would be best addressed and resolved with BNDN through the process agreement to address BNDN's concerns related to long term groundwater contamination from the Project.</p> <p>See Section 4.3 for additional information on this topic (p. 25-28).</p>	<p>quality in Whitefish Lake. See draft EIS Appendix 7-C Sections 3.5.6.4 and 4.7.</p> <p>Please refer to the first part of Denison's response to BNDN comment #19 in regard to BNDN's suggestion of a process agreement.</p>	
22	BNDN (February 28, 2023)	Appendix 7C Section 3.4	<p>Comment #22: In Section 3.4 of Appendix 7C Denison reports that they have excluded colloids from their post- decommissioning geochemical modelling. Denison has also noted that colloids would serve to enhance mobility of contaminants and they could precipitate out of solution.</p> <p>BNDN is concerned that by excluding the precipitation of colloids with adsorbed</p>	<p>The authors acknowledged in Appendix 7C the potential for transport of COPCs in association with colloids was possible, and used previous research in a highly relevant system (Cigar Lake) to make the professional judgement that this process would not significantly alter the results of the numerical model. Colloid transport is not included routinely in reactive transport modelling because of the difficulty in a) accurately measuring the colloidal fraction in groundwater under existing conditions as the basis for the numerous assumptions that would need to made to include them in numerical modelling and b) the challenges with applying modelling approaches that have been</p>	<p><b>Not Addressed</b></p> <p>BNDN sees the lack of assessment of the risks from colloids as a significant gap in the modelling for the Project. The fact that it is difficult to model the impacts of colloids does not diminish the need to assess their potential impacts when they are a known risk to the receiving environment.</p> <p>It is essential that Denison work with our Nation within the context of a process agreement to develop mutually agreeable</p>

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			<p>contaminants as a pathway for contaminant transport, Denison has significantly underestimated the mobility of contaminants and the consequent risks to the receiving environment.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN requests that Denison prepare an additional geochemical model that considers the roles that colloids could potentially contribute to contaminant transport. The findings of this additional model (along with the other models) should be reviewed with BNDN.</li> </ul> <p>This item would be best addressed and resolved with BNDN through the process agreement to address BNDN's concerns related to long term groundwater contamination from the Project.</p> <p>See Section 4.3 for additional information on this topic (p. 25-28).</p>	<p>developed at the scale of regional models (e.g., Molnar et al., <a href="https://www.pure.ed.ac.uk/ws/portalfiles/portal/109261315/109261203._Molnar._PFV.pdf">https://www.pure.ed.ac.uk/ws/portalfiles/portal/109261315/109261203._Molnar._PFV.pdf</a>). Refinement of the mining area decommissioning objectives and associated modelling will be done as the Project progresses through updates to the Decommissioning Plan; nevertheless, the objectives as they may evolve will be bound by the objectives evaluated in the EIS, which as shown are protective of aquatic biota in Whitefish Lake. The final acceptable mining area decommissioning objectives will be developed prior to initiation of groundwater remediation, as part of the Detailed Decommissioning Plan (DDP). Prior to executing decommissioning activities, Denison shall prepare and submit the DDP to regulators for acceptance. In this case the DDP would reflect input that will be solicited from Indigenous Nations and communities and others prior to its submission and would also be informed by conditions on the ground at the site at that time, operational experience that has been gained and the regulatory landscape at that time. As is highlighted above, the decommissioning plan will evolve over time and the plan will become more refined as the Project advances.</p> <p>Please refer to the first part of Denison's response to BNDN comment #19 in regard to BNDN's suggestion of a process agreement.</p>	mitigation measures to monitor this risk to the receiving environment.
23	BNDN (February 28, 2023)	Appendix 7C Section 4.0	<p>Comment #23: In Section 4.0 of Appendix 7c of the draft EIS, Denison reports that the composition of restoration solution 1 and restoration solution 2 were derived from metallurgical testing. While this is likely the best, BNDN notes that the initial solution used</p>	<p>Further information on how the chemistry in restoration solutions #1 and #2 were derived and evidence providing confidence that the reflect conditions that are expected in the mining area with remediation of the mining area is provided in the Denison Feasibility Report (2023) and a summary is attached here as part of Denison's response to Federal Indigenous Review Team (FIRT) information requirement #67.</p>	<p><b>Not Addressed.</b></p> <p>BNDN requires discussion with Denison and their SMEs to better understand their findings, especially the replicability and clarification on the suitability of the methodology chosen. This discussion should occur within the framework of a BNDN-Denison process agreement for the Project.</p>

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			<p>in the geochemical modelling is enormously consequential in the accuracy of the modelling and require further confirmation and confidence that the restoration solutions are accurate to within a reasonable margin of error for the geochemical modelling.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN requests that Denison provide further information on how the chemistry in restoration solution 1 and restoration solution 2 were derived and any evidence they can provide that gives them confidence that these solutions are an accurate reflection of what will be observed in the wellfield.</li> </ul> <p>This item would be best addressed and resolved with BNDN through the process agreement to address BNDN's concerns related to long term groundwater contamination from the Project.</p> <p>See Section 4.3 for additional information on this topic (p. 25-28).</p>	Please refer to the first part of Denison's response to BNDN comment #19 in regard to BNDN's suggestion of a process agreement.	
24	BNDN (February 28, 2023)	Appendix 7C	Comment #24: BNDN notes that Denison has not provided any discussion on the extent to which the lixiviant and the solution used to flush the wellfield at the end of	In the modelling presented in Appendix 7-C, the mining area is assumed to span the entirety of the depth of the paleoweathered zone within the area of the freeze wall, as described in Section 4.6. Thus, in the Decommissioning period, the water quality in that entire portion of the	<b>Provisionally Addressed.</b> BNDN understands the modelling assumptions and would accept them assuming that the other unaddressed

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			<p>operations will interact with the underlying paleo weathered bedrock. BNDN notes that it is possible that there are mineral phases within the paleo weathered bedrock that are also readily soluble when exposed to the lixiviant. While BNDN recognizes that the paleo weathered bedrock has a low permeability, it is unclear to BNDN as to whether the lixiviant will contribute to mobilization of contaminants from the paleo weathered bedrock that requires consideration in the post-decommissioning groundwater model.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN requests that Denison provide any available information on how the bedrock may be altered (through dissolution of soluble mineral phases) by the lixiviant and the flushing of the wellfield during decommissioning, and whether this has been factored into their post-decommissioning groundwater model.</li> </ul> <p>This item would be best addressed and resolved with BNDN through the process agreement to address BNDN's concerns related to long</p>	<p>paleoweathered zone was assumed to be equivalent to that of the "restored solution". This reflects, as the BNDN notes, the dissolution of soluble minerals associated with the paleoweathered zone due to interaction with the mining solutions. This assumption is conservative because the whole of the paleoweathered zone does not have the uranium mineralization of the ore zone, nor the concentrations of other COPC-containing mineral phases.</p> <p>Some alteration of the clays is expected, as is some bleaching (loss of iron-rich minerals); however, there is uncertainty with respect to the specific changes in the nature of the paleoweathered zone that have continued to be explored by Denison through experimental/metallurgical work. The decision was made in the numeric modelling to treat the portion of the paleoweathered zone within the freeze as geochemically unreactive - meaning that no sorption to clays or desorption from clays (with the exception of chlorite in the "pH tail" scenario (Section 3.5.6.4) was assumed for this zone. Thus, sorption of COPCs to clays in the paleoweathered zone within the numeric model occurred only outside of the freeze wall footprint, where the minerals will not have been exposed to mining solutions and will not have been altered.</p> <p>Please refer to the first part of Denison's response to BNDN comment #19 in regard to BNDN's suggestion of a process agreement.</p>	<p>comments regarding modeling assumptions are addressed.</p> <p>Note that this does not address the need for a process agreement for the entirety of the Wheeler River Project with our Nation.</p>



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			term groundwater contamination from the Project.  See Section 4.3 for additional information on this topic (p. 25-28).		
25	BNDN (February 28, 2023)	Appendix 7C Section 5.2.2	<p>Comment #25: In section 5.2.2 of Appendix 7c of the draft EIS Denison reports the assumptions built into their post-decommissioning groundwater modelling. BNDN notes that Denison has assumed that adsorption reaction sites are assumed to be available uniformly throughout the subsurface parameter zones. The presence of sufficient adsorption sites is a primary variable which determines the outcomes of the groundwater modelling, as adsorption of ions out of solution is the primary means by which contaminant transport is attenuated in Denison's modelling. BNDN is concerned that the presence of a variable that is so consequential to the findings of the model is based primarily on assumptions with limited information to base the assumptions upon.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN requests that Denison provide justification for the assumption that adsorption sites will be uniformly</li> </ul>	<p>We note the uncertainty assessment in the draft EIS tests conditions where less sorption sites are available (1/10th of the characterized amount). Further, refinement of the mining area decommissioning objectives and associated modelling will be done as the Project progresses through updates to the Decommissioning Plan; nevertheless, the objectives as they may evolve will be bound by the objectives evaluated in the EIS, which as shown are protective of aquatic biota in Whitefish Lake. The final acceptable mining area decommissioning objectives will be developed prior to initiation of groundwater remediation, as part of the Detailed Decommissioning Plan (DDP). Prior to executing decommissioning activities, Denison shall prepare and submit the DDP to regulators for acceptance. In this case the DDP would reflect input that will be solicited from Indigenous Nations and communities and others prior to its submission and would also be informed by conditions on the ground at the site at that time, operational experience that has been gained and the regulatory landscape at that time. As is highlighted above, the decommissioning plan will evolve over time and the plan will become more refined as the Project advances. Denison is committed to continue to engage with Indigenous Nations and communities to solicit input.</p> <p>Please refer to the first part of Denison's response to BNDN comment #19 in regard to BNDN's suggestion of a process agreement.</p>	<p><b>Not Addressed</b></p> <p>BNDN notes that should the assumptions turn out to be incorrect (for example, contaminants in solution are not effectively removed from solution via adsorption), then it will be extremely challenging for Denison to prevent the migration of contaminants in the restored solution. BNDN requires additional understanding of the modelling assumptions (as discussed above) and agreement on potential mitigation measures should attenuation of contaminants through adsorption occur at much lower rates than anticipated.</p>

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			<p>available throughout the sub-surface parameter zones. BNDN requests that Denison provide information on how they estimated the extent to which adsorption sites are already saturated prior to mining.</p> <p>This item would be best addressed and resolved with BNDN through the process agreement to address BNDN's concerns related to long term groundwater contamination from the Project.</p> <p>See Section 4.3 for additional information on this topic (p. 25-28).</p>		
26	BNDN (February 28, 2023)	Appendix 7C Table 3-10	<p>Comment #26: Table 3-10 of Appendix 7c of the draft EIS shows the expected adsorbing mineral properties of the mineral phases to which contaminants are expected to adsorb out of solution. BNDN notes that the lixiviant and restoration solution could affect the ability of adsorption. In particular, the clays immediately surrounding the orebody are within the freeze wall and will be directly exposed to the lixiviant during operations, which may impact the clay's ability to adsorb contaminants out of solution.</p> <p>BNDN notes that the clays immediately surrounding the</p>	<p>Please see Denison's response above to BNDN Comment #24. Sorbing phases including clays were excluded from the mining area in the numeric model. Sorption occurs only to materials outside of the mining area that are not exposed to, and thus not altered by interaction with the mining solutions.</p> <p>Please refer to the first part of Denison's response to BNDN comment #19 in regard to BNDN's suggestion of a process agreement.</p>	<p><b>Provisionally Addressed.</b></p> <p>BNDN understands the modelling assumptions and would accept them assuming that the other unaddressed comments regarding modeling assumptions are addressed.</p> <p>Note that this does not address the need for a process agreement for the entirety of the Wheeler River Project with our Nation.</p>

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			<p>orebody may be soluble in the presence of the lixiviant or may be altered to have a lower capacity to adsorb metals. BNDN requires further information from Denison to have confidence that the clay phases which play a crucial role in contaminant attenuation will not have their adsorptive capacity impacted by the operation of the wellfield.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN requests that Denison provide available information on whether clay mineral phases are anticipated to dissolve through the ISR mining process, and whether the restoration solution will impact the ability of clays to effectively adsorb contaminants.</li> </ul> <p>This item would be best addressed and resolved with BNDN through the process agreement to address BNDN's concerns related to long term groundwater contamination from the Project.</p> <p>See Section 4.3 for additional information on this topic (p. 25-28).</p>		
27	BNDN (February 28, 2023)	Section 1.1.1	Comment #26: In Section 1.1.1 of the Draft EIS, Denison notes that "the Gryphon deposit is not	Denison acknowledges that, if development of the Gryphon deposit as an underground mine is proposed in the future, this would require additional regulatory review	<b>Addressed</b> BNDN notes that the acknowledgement addressed the concern specific to this

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			<p>amenable to ISR mining and, accordingly, is not included in the EIS". Denison has previously reported that the Gryphon deposit has nearly as much uranium as the Phoenix deposit. While the Gryphon deposit is not amenable to ISR, it is potentially still an economic resource which Denison may wish to mine.</p> <p>While the Gryphon deposit is not in scope for this environmental assessment, BNDN expects to be kept informed of future potential mining activities on the Wheeler River Project which Denison may be considering, including additional exploration on the Property, as future activities on the Property will also have impacts on our Treaty and aboriginal rights and interests.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>Given the potential longer term mining activities at the Wheeler River project beyond the Phoenix deposit, BNDN requests that any project agreement between BNDN and Denison include terms for ongoing dialogue related to future exploration and project development activities at the Wheeler River Project and at</li> </ul>	and approval as well as engagement with Indigenous Communities of Interest. Please also refer to the first part of Denison's response to BNDN comment #19 in regard to BNDN's suggestion of a process agreement.	comment but does not address the need for a process agreement for the entirety of the Wheeler River Project with our Nation.

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			all Denison Projects on BNDN Ancestral Lands.  See Section 4.3 for additional information on this topic (p. 25-28).		
28	BNDN (February 28, 2023)	Section 2.3.3.1.3	<p>Comment #28: In Section 2.3.3.1.3 of the draft EIS Denison describes the proposed decontamination, demolition and disposal activities at the Project. BNDN notes that Denison has described a detailed process for decommissioning the injection and recovery wells but has not described how the freeze wells will be decommissioned. BNDN notes that the freeze well holes may serve as preferential pathways for contaminated groundwater movement. Given the proximity of freeze wells to the orebody and the number of freeze wells proposed to be drilled, proper closure of freeze wells is also important for protection water quality long term.</p> <p>Request/recommendation:</p> <p>a) BNDN request that Denison clarify the process by which they will decommission the freeze wells.</p> <p>b) BNDN requests that Denison decommission the freeze wells using the same process as is proposed for the decommissioning of the injection and recovery wells.</p>	The freeze holes will be decommissioned in the same manner as the ISR wellfield injection and recovery wells. All wells once decommissioned will undergo a mechanical integrity and leak off test prior to being grouted and sealed internally preventing interaction of surface water from the underlying aquifer at the mineralized depth. The freeze pipes, which will be located inside the freeze holes, will simply be unthreaded and removed from site after the freeze wall is no longer required.	<b>Addressed</b> , pending future engagement on environmental matters with BNDN through a process agreement and eventual mutual benefits agreement.

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			See Section 4.3 for additional information on this topic (p. 25-28).		
29	BNDN (February 28, 2023)	Section 2.3.3.1.3	<p>Comment #29: Denison describes the thawing of the freeze wall as part of the decommissioning of the mine. BNDN notes that water expands when frozen and could potentially be capable of expanding pre-existing joints and fractures within the host rock. BNDN is concerned that the thawing of the freeze wall could lead to expanded joints and fractures which would allow for far more rapid contaminant transport away from the ore body and restoration solution than is modelled in the post-decommissioning groundwater model.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN request that Denison provide evidence from academic literature or other mine sites employing freeze wall technology to determine the extent the freeze wall could expands joints and fractures within the rock once thawed, including at unconformities or other pre-existing structural weaknesses within the host rock.</li> </ul>	Please refer to Attachment IR-10 for information on the freeze wall integrity and basis for the design, which relies on site field data and lived experience from several existing Saskatchewan mining operations.	<b>Addressed</b> , pending future engagement on environmental matters with BNDN through a process agreement and eventual mutual benefits agreement.



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			See Section 4.3 for additional information on this topic (p. 25-28).		
30	BNDN (February 28, 2023)	Figure 2.2-15 Section 2.2.3	<p>Comment #30: Denison notes that they have made the conservative assumption that no water would be recycled as mining solution as part of their water balance calculations. BNDN agrees that this conservative assumption is appropriate for assessment of potential impacts of the Project. While this assumption is appropriate for the environmental assessment, BNDN wishes to understand the proportion of industrial wastewater that may be recycled on site and any commitments Denison is willing to make regarding continual refinement of the water treatment process to increase the proportion of water that is recycled.</p> <p>Request/recommendation:</p> <p>a) BNDN requests that Denison commit to continual refinement of the Industrial Wastewater Treatment Plant (IWWTP) treatment process to maximize the amount of water that is recycled to the deposit.</p> <p>b) BNDN recommends that the Crown include a condition of approval for the project regarding</p>	<p>The EIS carried forward two options for the source of freshwater: 1) surface water and 2) groundwater. This freshwater will meet all Project needs for potable water, drilling, and process water and allow Denison to obtain the water from groundwater wells or from the surface water (Whitefish lake). The effluent quality and volume predictions in the EIS provide a bounding scenario of the basis of the assessment of Project effects. Denison is undertaking a sequential EA and licensing process under the Nuclear Safety and Control Act. For context, the EA process for a Project under CEAA 2012 and the Saskatchewan Environmental Assessment Act is long and complex. As such, the inputs and outputs (including IWWTP water recycle volumes and effluent quality) developed for the IWWTP were necessary and determined by Denison's Project engineers early in the EA process to allow for the EIS biophysical and human assessments to advance. Detailed design information on the IWWTP, including recycle volumes, were not available, which is standard for engineering and EA sequencing for major projects. Denison intends to continue to refine effluent quality and volume predictions as part of the BATEA assessment and licensing phase of the Project. The predictions provided in the EIS will continue to bound the assessment and provide a conservative representation of risk to human health and the environment. Further, more detailed information regarding the design and operation of the IWWTP and water management infrastructure (including discharge rates, recycle rates among many other things), as informed in part by the BATEA assessment, will be included with Denison's application for the license to operate which will provide opportunity for review and comment by Interested Parties. For reference, the IWWTP</p>	<p><b>Addressed</b>, pending future engagement on environmental matters with BNDN through a process agreement and eventual mutual benefits agreement.</p> <p><b>Comments for regulators are not addressed</b> and will be addressed through future engagement with the appropriate regulator.</p>

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			<p>continual improvement of water treatment to maximize recycling.</p> <p>c) BNDN requests that Denison share available information on the proportion of water that they currently anticipate being able to recycle.</p> <p>See Section 4.3 for additional information on this topic (p. 25-28).</p> <p>[Additional questions on this topic directed to regulators or government entities are included in the CNSC table]</p>	would be commissioned prior to the Operation phase as no discharge of treated effluent would occur until that time.	
31	BNDN (February 28, 2023)	Figure 2.2-15 Section 2.2.3.2	<p>Comment #31: In Section 2.2.3.2 and Figure 2.2-15 of the draft EIS, Denison describes their water balance for the project and anticipated water needs to operate the ISR wellfield.</p> <p>BNDN notes that the EIS does not describe how Denison derived their estimate for the quantity of water required to operate the ISR wellfield. BNDN is concerned that the volume of water required to operate the wellfield may be substantially greater than is estimated in the draft EIS. Utilizing greater volumes of water in the wellfield would have cascading effects throughout the water balance, including greater demand on the IWWTP, greater storage</p>	<p>a) Based on Denison's site-specific drilling, development, and pumping requirements over several years of exploration activities, the wellfield drilling water estimates presented in the EIS water balances are achievable. Denison's recently released feasibility study reaffirms the EIS assumptions related to water use and water recycle abilities.</p> <p>b) A key aspect of Denison's management system will be ongoing evaluation of the Project's performance compared to EIS predictions as well as continual improvement and adaptive management, as required. Should water consumption needs fall below those outlined in the EIS, Denison will follow all required permitting, licensing, and engagement with Indigenous nations and communities to describe and assess what those contingency measures would be.</p> <p>c) The near-field analysis (Section 8.2.4.2.3) identified that under all flow regime scenarios (i.e., 7Q10, monthly low, and monthly average), constituents are expected to be well mixed within Whitefish Lake (LA-5) and below the</p>	<p><b>a. Addressed</b></p> <p><b>b. Addressed</b>, pending future engagement on environmental matters with BNDN through a process agreement and eventual mutual benefits agreement.</p> <p><b>c. Addressed</b>, pending future engagement on environmental matters with BNDN through a process agreement and eventual mutual benefits agreement.</p> <p><b>d. Not Addressed.</b> Denison has not provided information on the implications of operating the wellfield at substantially higher pressures than currently anticipated. This is important as ISR technology for ore extraction is novel in the Athabasca Basin and higher pressures than currently modeled may be required to achieve the uranium recovery rates anticipated by the Proponent.</p>

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			<p>volumes required in the process water storage pond, greater UBS holding pond capacity and greater volumes of effluent discharge to Whitefish Lake. BNDN is concerned with the potential cascading risks associated with an inaccurate assessment of the volume of water required to operate the ISR wellfield.</p> <p>BNDN also wishes to understand whether it is possible that Denison will be required to operate the wellfields at a higher pressure, even if only temporarily. BNDN notes that operating wells at higher pressure come with additional workplace and environmental hazards, especially when dealing with a strongly acidic lixiviant.</p> <p>Request/recommendation:</p> <p>a) To demonstrate that Denison has not significantly underestimated the volume of water required to operate the wellfield, BNDN requests that Denison provide evidence that the volume of water required to operate the wellfield is accurate. This should include an assessment of their level of confidence they have in their estimated water consumption.</p> <p>b) BNDN requests that Denison provide BNDN with information on</p>	<p>most restrictive criteria for the protection of aquatic life (Table 8.2-10; Appendix 8-C and Appendix 8-D). Additionally, the extent of the mixing zone in Whitefish Lake is estimated to be less than 5 m under all flow scenarios assessed (Table 8.2-11). Denison will comply with the Water Security Agency's Guidelines for Effluent Mixing Zones and Denison would update modeling if the base assumptions associated with the discharge of treated effluent to Whitefish Lake were changed, as needed.</p> <p>d) Wellfield pressures were described in the draft EIS, Sections 2.2.1.4.2 and 2.2.1.4.3. In terms of pressures, ISR mining is planned at nominal pressures of 100 psi and intermittent pressures of up to 250 psi.</p>	Further discussions on this matter should be done within the terms set out in a process agreement between Denison and BNDN for the Wheeler River Project.

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			<p>potential contingency measures (such as constructing additional process water pond capacity) should their estimated water consumption be underestimated</p> <p>c) Denison must commit to updating their mixing zone assessment should they find it necessary to discharge greater quantities of effluent to Whitefish Lake than is estimated in the draft EIS.</p> <p>d) Denison must document the implications of operating the wellfield at a substantially higher pressure than currently expected. See Section 4.3 for additional information on this topic (p. 25-28).</p>		
32	BNDN (February 28, 2023)	Table 2.3-3	<p>Comment #32: Table 2.3-3 of the draft EIS shows Denison's proposed mining area decommissioning objectives, which are the groundwater quality objectives for the residual water in the ore zone following the flushing of the system during mine decommissioning. BNDN is surprised to see that relatively high concentrations of metals are expected to remain in the restoration solution as a final objective, such as 100 mg/l uranium and 2 mg/l cobalt, amongst many other metals.</p>	<p>Groundwater remediation targets provided in the draft EIS were derived from metallurgical test results completed from 2017 to 2021 with over 125 kg of material recovered from Phoenix deposit that underwent leaching and neutralization test work (see response to IR-67). In 2022 and 2023, metallurgical test work continued to further optimize remediation and strategies and confirm test work results presented in the draft EIS. It is expected that metallurgical test work will continue in the future to further optimize remediation targets, and this will be advanced through updates to the Decommissioning Plan. The Feasibility Field Test (FFT) provided additional confirmation that pH target and remediation targets could be met. Data gathered during the neutralization phase of the FFT provide confidence that groundwater targets proposed in the draft EIS can be met technically and</p>	<p><b>a. Not Addressed.</b> BNDN does not see it as acceptable to postpone the commitment to more stringent residual water in the ore zone to later permitting stages. Denison did not respond to our request for additional contextual information on the additional costs to further reduce metals concentrations in the residual solution. BNDN reiterates this request and recommends that it be addressed within the protocols established in a process agreement between Denison and BNDN.</p> <p><b>b. Not Addressed.</b> BNDN reiterates our request to address these concerns through a</p>

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			<p>BNDN notes that potential risks to groundwater and surface water could be dramatically reduced through more stringent mining area decommissioning objectives. It is also feasible that processing efficiencies and high uranium prices may allow for substantially lower concentrations of uranium to be mined economically. The long-term contamination of groundwater from the high concentration of metals in the restoration solution is one of BNDN's primary concerns with the Wheeler River Project, and BNDN would strongly prefer that Denison strive to minimize the residual contamination remaining in groundwater following decommissioning to the greatest extent possible.</p> <p>Request/recommendation:</p> <p>a) BNDN requests that Denison provide documentation that estimates the time, efforts and costs associated with reducing concentrations of metals in the restoration solution by 1 order of magnitude and 2 orders of magnitude. Note that these calculations should include costs that could be recovered by processing subeconomic UBS.</p>	<p>economically. Based on laboratory testing and the results of the 2022 field testing, subsurface remediation is planned to consist of rinsing the ore zone with 35 pore volumes of fresh water, slowly raising the pH and then pumping about 75 pore volumes of basic solution through the same portion of the ore zone. This basic solution will in effect further raise the pH to a level that impedes further leaching of the deposit and reduces aqueous concentrations of contaminants of concern to below their environmental target levels.</p> <p>Refinement of the mining area decommissioning objectives and associated modelling will be done as the Project progresses through updates to the Decommissioning Plan; nevertheless, the objectives as they may evolve will be bound by the objectives evaluated in the EIS, which as shown are protective of aquatic biota in Whitefish Lake. The final mining area decommissioning objectives will be developed prior to initiation of groundwater remediation as part of the Detailed Decommissioning Plan (DDP). Prior to executing decommissioning activities, Denison shall prepare and submit the DDP to regulators for approval. The DDP would reflect input that will be solicited from Indigenous Nations and communities and others prior to its submission and would also be informed by conditions on the ground at the site at that time, operational experience that has been gained and the regulatory landscape at that time. As is highlighted above, the decommissioning plan will evolve over time and the plan will become more refined as the Project advances.</p> <p>As the Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, Denison has committed to collaborating with English River First Nation and Kineepik Métis Local on a monitoring regime, suited to each of their interests and needs. As part</p>	<p>process agreement and eventual mutual benefits agreement for the Project.</p> <p><b>c. Not Addressed.</b> BNDN intends to work with the Crown on this condition of approval.</p> <p><b>d. Not Addressed.</b> BNDN reiterates the request for the comparative analysis of reasonably achievable concentrations of uranium in the residual water.</p> <p><b>Comments for regulators are not addressed</b> and will be addressed through future engagement with the appropriate regulator.</p>

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			<p>b) BNDN requests that Denison work with BNDN through terms defined in a BNDN project agreement to establish achievable decommissioning objectives that would be satisfactory to BNDN.</p> <p>c) BNDN requests that the Crown place a condition of approval upon the Wheeler River Project that Denison is required to work with BNDN to establish mutually agreeable mining area decommissioning objectives.</p> <p>d) BNDN requests that Denison undertake a study of ISR operations elsewhere in the world to determine the lowest concentrations of UBS that could be processed economically utilizing industry best practices and commit to exceeding global standards.</p> <p>See Section 4.3 for additional information on this topic (p. 25-28).</p> <p>[Additional questions on this topic directed to regulators or government entities are included in the CNSC table]</p>	<p>of these programs, Denison and the Indigenous community of ERFN and KML will be sharing information in an agreed-upon fashion. It is expected that the data collected through such monitoring regimes as described above would also be relevant to other Indigenous nations who may have interest in the Project. Denison does not anticipate separate funding for BNDN at this time.</p>	
33	BNDN (February 28, 2023)	Section 2.2.2.2.2 Figure 2.2-18	Comment #33: In Figure 2.2-18 of the draft EIS, Denison shows the proposed design of the double composite liner system for the ponds on site and the uranium bearing solution (UBS) holding	As outlined in draft EIS Section 2.2.2.2.2, Denison will evaluate options to use tanks instead of holding area as engineering advances. It is also important to note that Denison is completing a sequential EA and licensing process for the Project (see draft EIS Section 1). Denison considers the EA to be a planning and decision-making tool that assesses the potential effects of the Project in a	<b>a. Not Addressed.</b> BNDN sees it as a reasonable and necessary precaution to store UBS in tanks instead of open air storage. BNDN reiterates this request and recommends that it be addressed within the



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			<p>area. BNDN notes that the risks associated with temporary storage of UBS is much greater than other contact water on site which is proposed to be stored in a similar means. As such, BNDN is concerned that the proposed UBS holding area does not have adequate leak detection given the additional risk associated with the UBS relative to contact water on site. BNDN also notes that open air storage of UBS presents the risk of incidental interactions with wildlife near to the project (such as birds), which would potentially be acutely toxic.</p> <p>BNDN is also concerned that there is no leak detection system below the secondary HDPE geomembrane and geosynthetic clay liner. Should the secondary containment layers also become compromised, Denison does not have a system planned to detect this.</p> <p>Request/recommendation:</p> <p>a) BNDN requests that Denison commit to storing UBS in appropriate tanks as opposed to open air storage.</p> <p>b) BNDN requests that Denison include a leak detection pipe in the prepared subgrade below the secondary containment as well as between the primary and</p>	<p>careful and precautionary manner and integrates results of engagement with Indigenous nations and communities. The details requested by BNDN will be developed to support licensing and will be included in Management System programs / plans including for example the Groundwater Monitoring Plan and the Emergency Response and Preparedness Plan.</p>	<p>protocols established in a process agreement between Denison and BNDN.</p> <p><b>b. Not Addressed.</b> BNDN sees it as a reasonable and necessary precaution to incorporate a leak detection system into UBS storage. BNDN reiterates this request and recommends that it be addressed within the protocols established in a process agreement between Denison and BNDN.</p>

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			secondary containment layers. BNDN also requests that the prepared subgrade be engineered to facilitate maximum utility of the leak detection below the secondary containment. See Section 4.3 for additional information on this topic (p. 25-28).		
34	BNDN (February 28, 2023)	Figure 2.3-1	<p>Comment #34: Denison shows an additional ore body to the Southwest of Phase 5. Denison has not included this additional ore body in the mine plan in the draft EIS and has not discussed whether they have intentions to mine this ore body or undertaking a project change at a later date to include this additional ore body.</p> <p>It is unclear whether this additional ore body has any implications for the long-term groundwater quality modelling either through the additional orebody altering anticipated groundwater chemistry, or the restoration solution dissolving metals in the additional orebody increasing overall metal loading. Given the probable difference in groundwater and mineral geochemistry in the additional orebody relative to the overlying sandstone and underlying basement rock, there is likely to be interaction between the restored</p>	<p>a) and b) The small deposit to the SW of Phase 5 is amenable to ISR but is of lower grade than the areas targeted in mining phases 1 through 5 and mining of that low grade areas is not being considered at this time. It is noted that The Project mining and milling capacity will be bound by the assumptions in the EIS, which includes a production rate higher than the current reserves. The Project would be reviewed to determine what if any changes to the design basis would be anticipated and then what permitting would be required, should additional mining beyond what is contemplate by the EA be considered in the future.</p> <p>c) The additional modelling recommended by the review comment is unnecessary at this time. The low grade area is not considered in the mine plan at this time. Should that change, as noted above, the Project would be reviewed to determine what if any changes to the design basis would be anticipated and then what permitting would be required. Such modeling as envisioned by the review comment would be done that time as may be required. Hydrogeological investigations have been ongoing in the field and in laboratories since 2014. Packer, open hole, and cross hole tests have been completed in conjunction with exploration drilling programs. As well, permeability tests have been completed on sections of available competent core within the Phoenix deposit. Open hole water level</p>	Addressed

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			<p>solution and the additional orebody post-closure.</p> <p>Request/recommendation:</p> <p>a) BNDN requests that Denison clarify whether they are considering adding the additional orebody to the southwest of Phase 5 into the mine plan, including clarifying whether the additional ore body is amenable to ISR mining.</p> <p>b) BNDN requests that Denison clarify what the anticipated permitting associated with the additional ore body would be.</p> <p>c) BNDN requests that the post-decommissioning groundwater modelling for the Project include interactions between the additional ore body and the restoration solution to understand if the ore body poses a risk of additional metal loading to groundwater.</p> <p>See Section 4.3 for additional information on this topic (p. 25-28).</p>	<p>surveys have been completed across the site in 2015, 2017, 2021 and 2022. Data gathered during the field tests have been utilized for both the EA groundwater model as well as the mining model. The primary direction of groundwater flow at depth is to the north east, which means restored solutions will move away from the small deposit to the SW. Additionally, as noted in the response to BNDN Comment #32, the restored solution will be basic and will further raise the pH to a level that impedes further leaching of the deposit and reduces aqueous concentrations of contaminants of concern to below their environmental target levels.</p>	
35	BNDN (February 28, 2023)	Section 2.2.1.3 Section 7.6.2.1	<p>Comment #35: Denison intends to use a freeze wall as tertiary containment for the operation of the wellfield during operations. In general, BNDN is supportive of this containment measure but requires further information to have</p>	<p>a) Please refer to Attachment IR-10 for information on the freeze wall integrity and basis for the design, which relies on site field data and lived experience from several existing Saskatchewan mining operations.</p> <p>b) The following explains how the continuous freeze wall will be monitored. The alignment of the freeze wall is located 25 m offset from the lateral extent of the</p>	<p><b>a. Addressed</b>, pending future engagement on environmental matters with BNDN through a process agreement and eventual mutual benefits agreement.</p> <p><b>b. Addressed</b>, pending future engagement on environmental matters with BNDN</p>

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			<p>confidence that the freeze walls will operate as designed. In particular, BNDN notes that while the freeze wall will be continuous from the ground surface all the way into the basement rocks underlying the orebody, the freeze wall is by far the most consequential immediately around the ore body itself. The orebody is approximately 400 m below the ground surface (where the earth would be significantly warmer) and the lixiviant is expected to be at least 10 degrees warmer than the surrounding groundwater would be. Considering that the cold brine will need to be injected nearly half a kilometer into the earth where warm lixiviant will be injected into the wellfield, BNDN is concerned that the freeze wall may be ineffective in and around the ore body where it is required. Furthermore, BNDN is concerned that the monitoring system for assessing the stability of the freeze wall may not adequately detect the continuity of the freeze wall at depth. As such, BNDN is concerned that the freeze wall may be ineffective and in fact obscure our ability to recognize contamination of the surrounding groundwater from the freeze wall operating ineffectively.</p>	<p>recoverable ore and the freeze wall will grow in thickness both towards the ore and away from the ore. The freeze wall will solidify all liquid porewater and develop into a contiguous impermeable barrier many metres thick. Ground temperature monitoring will be installed through a series of continuous fiberoptic temperature and pressure wells from surface to the depth of impermeable basement rock below the unconformity. Such monitoring wells/systems will be installed on both the ore (inside) and non-ore (outside) sides of the freeze wall to confirm the thickness of frozen ground. There will be sufficient operational controls in place to verify that the freeze plant is operating, to measure the temperature in the ore zone, and to measure the temperature on opposite sides (inside and outside) of the freeze wall so that early detection of any upset conditions can be identified and addressed. Options for addressing issues include: lowering the temperature of the freeze system to draw more heat out; increasing the freeze coolant flow rates in freeze wells nearer to active ISR cells; and/or to adaptively manage the lixiviant injection and recovery rates in cells located nearest to the freeze wall.</p> <p>c) Regarding the monitoring program: A framework for the groundwater monitoring plan was provided in Section 7.8.2 of the draft EIS and is commensurate with the level of development of the Project. Further details regarding the Environmental Management Program and its associated plans (of which the groundwater monitoring plan is one) will be developed later in 2023 and 2024 as part of the licensing process. Engagement on licensing requirements, including on program and plan documentation will occur at that time.</p> <p>d) As the Indigenous Communities of Interest with reserves and residential communities most proximal to the Project,</p>	<p>through a process agreement and eventual mutual benefits agreement.</p> <p><b>c. Not Addressed</b>, BNDN requires a commitment from Denison to include BNDN into the development and implementation of the monitoring plan, which should be formalized in a BNDN-Denison process agreement and eventual Mutual Benefits Agreement.</p> <p><b>d. Not Addressed</b>, BNDN requires a commitment from Denison to include BNDN into the development and implementation of the monitoring plan, which should be formalized in a BNDN-Denison process agreement and eventual Mutual Benefits Agreement.</p>

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			<p>Request/recommendation:</p> <p>a) BNDN requests that Denison provide information to demonstrate that the freeze wall will in fact be frozen in and around the ore body. If there is any doubt that the freeze wall will indeed be frozen around the ore body, Denison should describe further measures they can undertake to ensure that the freeze wall is frozen as intended around the ore body.</p> <p>b) Denison must provide BNDN with further information on how they will monitor the performance and continuity of the freeze wall.</p> <p>c) BNDN requests further information on the proposed groundwater monitoring program around the wellfield.</p> <p>d) BNDN requests the opportunity to review the groundwater monitoring plan and to review groundwater monitoring data as part of a BNDN-Denison environmental committee developed through a BNDN-Denison project agreement.</p> <p>See Section 4.3 for additional information on this topic (p. 25-28).</p>	<p>Denison has committed to collaborating with English River First Nation and Kineepik Métis Local on monitoring regimes, suited to each of their interests and needs. As part of these programs, Denison and the Indigenous community of ERFN and KML will be sharing information in an agreed-upon fashion. It is expected that the data collected through such monitoring regimes as described above would also be relevant to other Indigenous nations who may have interest in the Project, such as BNDN. Denison does not anticipate separate funding for BNDN at this time.</p>	
36	BNDN	Section 2.9.1.3.1	Comment #36: Denison documents their conceptual level	As the Indigenous Communities of Interest with reserves and residential communities most proximal to the Project,	<b>a. Not Addressed.</b> BNDN requires a commitment from Denison to include BNDN

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	(February 28, 2023)		<p>environmental protection program, including several proposed management and monitoring plans which they will develop to manage operations on site.</p> <p>The environmental protection measures which Denison undertakes at the Project site are highly consequential to BNDN, and BNDN requires the opportunity to provide our knowledge and input into environmental protection measures developed for activities within our Ancestral Lands.</p> <p>Request/recommendation:</p> <p>a) BNDN requests that Denison commit to involving BNDN in the development, review and approval of all environmental monitoring plans developed for the Project. Details of BNDN involvement in the development of environmental monitoring plans should be undertaken within an Environmental Committee, with specific terms defined within a BNDN-Denison Project Agreement for the Wheeler River Project</p> <p>b) BNDN requests that the CNSC impose a condition of approval on the project which states the requirement for Denison to consult with BNDN on all environmental management and monitoring plans for the project.</p>	<p>Denison has committed to collaborating with English River First Nation and Kineepik Métis Local on a monitoring regime, suited to each of their interests and needs. As part of these programs, Denison and the Indigenous community of ERFN and KML will be sharing information in an agreed-upon fashion. It is expected that the data collected through such monitoring regimes as described above would also be relevant to other Indigenous nations who may have interest in the Project. Denison does not anticipate separate funding for BNDN at this time.</p> <p>BNDN will be informed throughout the monitoring program design and implementation process. Monitoring program design and implementation will be guided by the following principles: meet regulatory requirements, confirm the effectiveness of mitigation measures and predictions made in the assessment, implementing adaptive management (if/where applicable) to reduce effects during the lifetime of the Project, and will ensure that spatial boundaries are sufficiently extensive to measure EIS predictions.</p> <p>The details of monitoring and follow-up plans are being developed to support the separate process of Project licensing and permitting. The specific means by which provincial and federal authorities, and Indigenous Nations and communities will be engaged in developing the follow-up and monitoring program, including the information-sharing program, are currently under consideration with the Denison project team. It is noted that Section 4.2.1 of the draft EIS provides the variety of ways in which Denison has engaged with Interested Parties to date and it is assumed it would continue to use these means and others that may be identified to fulfil its key corporate principals for developing positive relationships (see draft EIS Section 4.2).</p>	<p>into the development and implementation of all project environmental management and monitoring plans, which should be formalized in a BNDN-Denison process agreement and eventual Mutual Benefits Agreement.</p> <p><b>b. Not Addressed,</b> Comments for regulators are not addressed and will be addressed through future engagement with the appropriate regulator.</p>



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			See Section 4.3 for additional information on this topic (p. 25-28).  [Additional questions on this topic directed to regulators or government entities are included in the CNSC table]		
37	BNDN (February 28, 2023)	Section 7.6.2.3	<p>Comment #37: In Section 7.6.2.3 of the draft EIS and the geology and groundwater summary table in Appendix 16A, Denison states that they expect no residual effects to groundwater quality during the operations, decommissioning or future centuries period of the Project. Denison has also not placed a significance determination on the impacts to groundwater quality based on the findings of the draft EIS due to groundwater being considered an intermediate VC.</p> <p>BNDN disagrees with both the residual effects assessment and the fact that groundwater quality has been assessed solely as an intermediate VC. The protection of groundwater resources is highly important to BNDN. Our members place immense value on clean spring water and the protection of groundwater more generally. The advancement of the Wheeler River Project will permanently impair groundwater resources in and around the Wheeler River Project.</p>	<p>The Groundwater Quality VC was carried through the EIS as an intermediate VC. The shallow and deeper groundwaters are not considered to be a potable water source currently nor in the future within the LSA (defined in Section 7.1.3.1), as detailed in Section 7.1.1.1. Within the LSA, the Groundwater VC was considered an intermediate VC as it is a pathway to the aquatic environment and considered in the future centuries period in Section 8. It is also important to note that the mining area is 400 m below surface and the existing/baseline groundwater quality in the ore zone area is poor (e.g., high in iron and uranium compared to shallower groundwater; Figure 7.3-11). Section 7.6 describes the residual effects evaluation for geology and groundwater, including for the life of mine (0 to 38 years) and the future centuries period. It is Denison's opinion that the approach associated with evaluating Project effects to groundwater quality is appropriate and reasonable for the reasons presented in the draft EIS.</p> <p>Denison continues to work with its Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, Denison has committed to collaborating with English River First Nation and Kineepik Métis Local on a community specific monitoring regime, suited to each of their interests and needs, in an agreed-upon fashion. One of the key goals of such collaboration with each Indigenous nation will be to provide the information necessary to the communities such that it provides confidence to community members</p>	<p><b>a. Not Addressed.</b> BNDN reiterates our request to carry through groundwater as a receptor VC, as groundwater resources are highly culturally and spiritually important to our Nation.</p> <p><b>b. Not Addressed.</b> BNDN reiterates our request to carry through groundwater as a receptor VC into the future centuries period, as groundwater resources are highly culturally and spiritually important to our Nation.</p> <p><b>c. Not Addressed.</b> Comments for regulators are not addressed and will be addressed through future engagement with the appropriate regulator.</p>

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			<p>The contamination of groundwater at the Project will have a significant impact on our members' connection to the land and ability to exercise our Treaty and Aboriginal rights. BNDN see the limited interpretation of residual effects and the lack of inclusion of groundwater quality as a receptor VC as a significant oversight in the assessment of impacts of the Project on the environment and BNDN Treaty and Aboriginal rights. This must be corrected to properly assess the Project and thus ensure that project impacts are appropriately mitigated and accommodated.</p> <p>Request/recommendation:</p> <p>a) Denison must apply a significant determination to groundwater quality and quantity for all projects phases, including the future centuries period. The significance determination must be developed following consultation and engagement with BNDN.</p> <p>b) Denison must re-evaluate the residual effects of the project on groundwater quality including the future centuries period. This re-evaluation must be following consultation and engagement with BNDN.</p>	<p>regarding the impacts from the Project to the aspects of the environment which matter the most to them. Denison is committed to continual improvement in relation to such collaborative monitoring programs, in order to adapt to areas of interest which can change over time. It is expected that the data collected through such monitoring regimes would also be relevant to other Indigenous First Nations who may have interest in the Project.</p> <p>The details of monitoring and follow-up plans are being developed to support the separate process of Project licensing and permitting. The specific means by which provincial and federal authorities, and Indigenous Nations and communities will be engaged in developing the follow-up and monitoring program, including the information-sharing program, are currently under consideration with the Denison project team. It is noted that Section 4.2.1 of the draft EIS provides the variety of ways in which Denison has engaged with Interested Parties to date and it is assumed it would continue to use these means and others that may be identified to fulfil its key corporate principals for developing positive relationships (see draft EIS Section 4.2).</p>	

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			<p>c) BNDN requests that the CNSC work with our Nation to understand the significant impacts that the permanent contamination of groundwater caused by the project will have on our Treaty and Aboriginal rights.</p> <p>See Section 4.3 for additional information on this topic (p. 25-28).</p> <p>[Additional questions on this topic directed to regulators or government entities are included in the CNSC table]</p>		
38	BNDN (February 28, 2023)	Section 7.8.2	<p>Comment #38: Section 7.8.2 of the draft EIS documents the groundwater monitoring proposed for the surface facilities and the ISR recovery area. It also describes a conceptual excursion contingency plan wherein Denison has proposed their plans to manage situations where groundwater contamination occurs beyond what is predicted in the EIS. BNDN notes that Section 7.8.2 lacks information on the involvement of Indigenous Nations related to groundwater monitoring.</p> <p>As stated previously, BNDN is highly concerned with the level of impact the Project will have on groundwater resources. As such BNDN requires Denison to communicate excursions of</p>	<p>Denison agrees with BNDN's comment that groundwater monitoring will be an important component of the Project as it advances.</p> <p>As the Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, Denison has committed to collaborating with English River First Nation and Kineepik Métis Local on a monitoring regime, suited to each of their interests and needs. As part of these programs, Denison and the Indigenous community of ERFN and KML will be sharing information in an agreed-upon fashion. It is expected that the data collected through such monitoring regimes as described above would also be relevant to other Indigenous nations who may have interest in the Project. BNDN will be informed throughout the monitoring program design and implementation process. Monitoring program design and implementation will be guided by the following principles: meet regulatory requirements, confirm the effectiveness of mitigation measures and predictions made in the assessment, implementing adaptive management (if/where applicable) to reduce effects during the lifetime</p>	<p><b>a. Not Addressed.</b></p> <p>BNDN requires Denison to commit to ongoing engagement with our Nation on groundwater monitoring through a process should be formalized in a BNDN-Denison process agreement and eventual Mutual Benefits Agreement.</p> <p><b>b. Not Addressed.</b></p> <p>BNDN intends to work with the Crown on this condition of approval.</p> <p><b>c. Not Addressed.</b> Comments for regulators are not addressed and will be addressed through future engagement with the appropriate regulator.</p>

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			<p>groundwater and the consequent management of excursions to our Nation.</p> <p>Request/recommendation:</p> <p>a) BNDN requests that Denison revise Section 7.8.2 to include Indigenous engagement and input for groundwater monitoring results and the management of observed groundwater excursions. The manner in which Denison engages BNDN on groundwater monitoring and management will likely occur through an Environmental Committee, which should be defined in a BNDN-Denison Project Agreement.</p> <p>b) BNDN requests that the CNSC impose a condition of approval on the Project that clarifies that Denison is required to engage with impacted Indigenous Nations such as BNDN on groundwater monitoring and management.</p> <p>See Section 4.3 for additional information on this topic (p. 25-28).</p> <p>[Additional questions on this topic directed to regulators or government entities are included in the CNSC table]</p>	<p>of the Project, and will ensure that spatial boundaries are sufficiently extensive to measure EIS predictions.</p> <p>The details of monitoring and follow-up plans are being developed to support the separate process of Project licensing and permitting. The specific means by which provincial and federal authorities, and Indigenous Nations and communities will be engaged in developing the follow-up and monitoring program, including the information-sharing program, are currently under consideration with the Denison project team. It is noted that Section 4.2.1 of the draft EIS provides the variety of ways in which Denison has engaged with Interested Parties to date and it is assumed it would continue to use these means and others that may be identified to fulfil its key corporate principals for developing positive relationships (see draft EIS Section 4.2).</p>	
39	BNDN (February 28, 2023)	Appendix 8D	Comment #39: In Appendix 8d, Denison documents their baseline aquatics studies undertaken for the	Denison appreciates and acknowledges the recommendation. At this time Denison believes suitable candidate references areas are available upstream of the	<p><b>Not Addressed</b></p> <p>BNDN has reasonably requested that Denison work with our Nation in identifying</p>

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			<p>Wheeler River EIS. Denison has included some lakes and rivers upstream of the Project as background sites for understanding project impacts to the aquatic environment. BNDN notes that there are many additional sites throughout our Ancestral Lands which would benefit from ongoing aquatic monitoring and would be potentially suitable for the Project as background sampling sites.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN requests that Denison work with our Nation to identify potential additional background sampling sites within our Ancestral Lands for aquatic monitoring for the life of Project. The details of such should be defined in the BNDN-Denison project agreement.</li> </ul> <p>See Section 4.3 for additional information on this topic (p. 25-28).</p>	<p>Project site in areas located in the same drainage system / watershed. While proximity to the Project is only one of many considerations for suitable reference area selection in this case the ability to be able to compare relevant measurement endpoints between "reference" vs "potentially influence" sampling locations where the primary difference between locations is the point source discharge is compelling rationale. Additionally, data that have been collected from upstream areas as part of baseline programs provides the opportunity to implement aquatic monitoring according to a BACI design which is a powerful means by which to assess and isolate potential mine related effects from natural environmental change. Given the above, Denison does not see that there is rationale for investigating lakes over a regional extent to establish reference areas for aquatic monitoring as is suggested.</p>	<p>background sampling sites. It is expected that such sites could be chosen in such a way that aligns with Denison's goals of obtaining reference information and implementing a BACI design for ongoing monitoring. The outright refusal of even discussing such a possibility with BNDN is not reflective of the need for meaningful consultation on this Project.</p>
40	BNDN (February 28, 2023)	Section 2.2.1.4.2	<p>Comment #40: In Section 2.2.1.4.2 of the Draft EIS Denison discusses the operation of the wellfield during the operations phase of the mine. BNDN notes that many of the details in this section are conceptual in nature and thus could require significant refinements in design to achieve</p>	<p>a) It is important to note that Denison is completing a sequential EA and licensing process for the Project (see draft EIS Section 1). Detailed ISR mining-related information needed to support licensing and permitting has not been included in the EIS; it will be provided to regulators as part of permitting and licensing. For the EIS, an initial understanding of the mine plan and mining area remediation was needed to initiate the assessment of migration of constituents of potential concern in</p>	<p><b>a. Not Addressed.</b></p> <p>BNDN note that Denison has not provided BNDN with the information that the Nation requested regarding changes in chemical composition of the lixiviant (other than changes in acid concentrations). BNDN reiterates the request for additional information.</p>

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			<p>the desired recovery consistently throughout the life of mine.</p> <p>Amongst other concerns related to operations of the ISR wellfield, BNDN is concerned that Denison may alter the chemical composition of the lixiviant used in the ISR wellfield which could cause inadequately understood changes in potential effects of the Project to the environment. These effects could include significant changes to the final restorative solution at the end of mine life or significant changes in the treatment requirements for the IWWTP that impact the ability of Denison to achieve effluent quality criteria for significant periods of time.</p> <p>Request/recommendation:</p> <p>a) BNDN requests that Denison provide information on:</p> <ul style="list-style-type: none"> <li>The likelihood of the chemical composition of the lixiviant changing throughout the life of project</li> <li>Potential changes to the lixiviant composition</li> <li>The implications for long term groundwater quality and effluent treatment from changes in lixiviant chemistry</li> </ul> <p>b) BNDN requests that Denison commit to ongoing</p>	<p>groundwater out of this area in the post-decommissioning period. The findings and conclusions of the EIS were also used, in turn, to inform and bound the engineering and feasibility work. As part of the metallurgical test program, over 125kg of core from the Phoenix deposit has been leached in a variety of settings, including bottle rolls, column tests, and intact core tests. This has helped to predict concentrations of both the lixiviant as well as the production solutions. The lixiviant (mining solution) concentrations will vary depending on each individual well production profile. To ensure reagent consumption is effective and efficient it will be varied during the life of each well dependent on its characteristics. The initial acidification of the well requires a lower acid content to ensure the formation does not plug due to precipitation, whereas during periods of high production the well can accept a higher acid concentration. Towards the end of the recovery curve, the uranium is more difficult to access and therefore the strength of the acid or the flow rate to the well need to be optimized to ensure efficient use of reagents. It is expected that the lixiviant concentrations will vary between 0-60 g/L H<sub>2</sub>SO<sub>4</sub>, and 0-20g/L H<sub>2</sub>O<sub>2</sub> and will be situationally dependent. There is also the capability to add Fe<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub>, however it is not expected that this will be required in significant concentration due to the natural abundance of iron in the deposit.</p> <p>b) Please see response to Comment #19 for Denison's response on a Project agreement.</p>	<p><b>b. Not Addressed.</b></p> <p>Denison has thus far denied BNDN's reasonable request for a process agreement and eventual project agreement despite the projects impacts to our Nations rights and interests; BNDN reiterates our request.</p>



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			communications and engagement with BNDN regarding changes to the wellfield operation throughout the life of mine. The terms of engagement should be defined in a BNDN-Denison project Agreement. See Section 4.3 for additional information on this topic (p. 25-28).		
41	BNDN (February 28, 2023)	Appendix 8E Table 4	<p>Comment #41: Table 4 of Appendix 8e of the draft EIS shows the predicted site discharge concentrations of the contaminants of potential concern (COPCs). BNDN notes that the concentrations of a number of COPCs do not achieve water quality objectives that is the best available technology economically achievable (BATEA). Example COPCs include copper, molybdenum, selenium, uranium, vanadium, zinc and ammonia.</p> <p>BNDN requires proponents operating on our Ancestral Lands to, at a minimum, achieve BATEA standards for effluent treatment and discharge. This takes reasonable and appropriate precaution without imposing unreasonable costs on the operation.</p> <p>Request/recommendation:</p>	<p>a) Denison is undertaking a sequential EA and licensing process under the NSCA. For context, the EA process for a Project under CEAA 2012 and the Saskatchewan Environmental Assessment Act is long and complex. As such, the inputs and outputs (e.g., effluent quality) needed for the EIS were developed by Denison's Project engineers early in the EA process to allow for the biophysical and human assessments to advance. An example of one of these outputs is the IWWTP effluent quality. The effluent quality predictions in the EIS provide a bounding scenario of the basis of the assessment of Project effects. As stated in the Draft REGDOC 2.9.2 Denison understands that a BATEA assessment be conducted to determine the predicted design release characteristics as part of the licence application for a new facility or activity. Outside of the EIS process, the Project detailed engineering is progressing, including the design of the IWWTP and associated refinement of effluent quality predictions. Denison is following Draft REGDOC 2.9.2 to arrive at a treatment option that remains within the bounds of the EA, which ultimately predicts no significant impacts to the receiving environment. The maximum design release characteristics for the IWWTP will be provided as part of Denison's licence application to the CNSC.</p> <p>b) As the Indigenous Communities of Interest with reserves and residential communities most proximal to the Project,</p>	<p><b>a. Not Addressed.</b></p> <p>BNDN notes that Denison has not made the requested commitment around achieving BATEA for all effluent COPCs.</p> <p><b>b. Not Addressed.</b></p> <p>BNDN requires Denison to commit to ongoing engagement with our Nation on determining suitable effluent discharge criteria for the IWWTP. The engagement process should be formalized in a BNDN-Denison process agreement and eventual Mutual Benefits Agreement.</p> <p><b>Comments for regulators are not addressed</b> and will be addressed through future engagement with the appropriate regulator.</p>

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			<p>a) BNDN requests that Denison commit to achieving BATEA criteria for all COPCs in their effluent.</p> <p>b) Denison must work with BNDN to identify mutually agreeable and appropriate effluent discharge criteria for their effluent. BNDN expects that identifying suitable effluent discharge criteria will be undertaken through an Environmental Committee with a terms of reference defined in a BNDN-Denison project agreement.</p> <p>c) BNDN requests that the CNSC impose a condition of approval on the Project that BNDN is engaged. See Section 4.3 for additional information on this topic (p. 25-28).</p> <p>[Additional questions on this topic directed to regulators or government entities are included in the CNSC table]</p>	Denison has committed to engagement with English River First Nation and Kineepik Métis Local as it relates to effluent discharge criteria, suited to each of their interests and needs. Denison does not anticipate working closely with BNDN on this topic.	
42	BNDN (February 28, 2023)	Appendix 8E Table 7	Comment #42: Table 7 of draft EIS Appendix 8e shows the anticipated size of the mixing zone under 3 different flow conditions, including the calculated 7Q10 flow. While BNDN understands that Denison expects to discharge relatively small volumes of effluent to Whitefish Lake compared to a conventional open pit or underground mining operation,	The prediction uncertainty analysis (i.e., "sensitivity analysis") presented in Appendix 7-C included an evaluation of the change in the model prediction (i.e., plume migration) with respect to changes in the conductivity of materials along the flow path to the receptor, Whitefish Lake (i.e., Scenarios 4, 5, and 6) as well as regarding the hydraulic conductivity of the mined-out ore zone. As such we feel that the work requested by the reviewer has already been completed and reported upon within the draft EIS. In addition, the uncertainty of the Intermediate Sandstone Aquifer was evaluated (see IR55),	<b>Addressed.</b>

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			<p>BNDN is concerned that the mixing zone assessment underestimates the magnitude of impact that the project will have on Whitefish Lake.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN requests that Denison undertake a plume delineation study and provide BNDN the opportunity to review the findings of the study through the BNDN-Denison Environmental Committee for the Wheeler River Project.</li> </ul> <p>See Section 4.3 for additional information on this topic (p. 25-28).</p>	<p>where higher hydraulic conductivity within the Intermediate Sandstone Aquifer were found to reduce the proportion of water from the ore zone reaching Whitefish Lake, which would have the effect of further reducing (i.e., diluting) concentrations simulated and presented in the EIS documentation. As such, the conditions documented in the draft EIS are already conservative with respect to the uncertainty in these parameters. The near-field analysis (Section 8.2.4.2.3) identified that under all flow regime scenarios (i.e., 7Q10, monthly low, and monthly average), constituents are expected to be well mixed within Whitefish Lake (LA-5) and below the most restrictive criteria for the protection of aquatic life (Table 8.2-10; Appendix 8-C and Appendix 8-D). Additionally, the extent of the mixing zone in Whitefish Lake is estimated to be less than 5 m under all flow scenarios assessed (Table 8.2-11). Denison will comply with the Water Security Agency's Guidelines for Effluent Mixing Zones.</p> <p>The above notwithstanding in-field confirmation of the extent of the effluent mixing zone is anticipated following commissioning of the IWWTP and effluent discharge system during the Operation phase of the Project.</p>	
43	BNDN (February 28, 2023)	Appendix 10A	<p>Comment #43: BNDN notes that the environmental risk assessment (draft EIS Appendix 10a) makes no mention of potential impacts the project may have on mercury biogeochemical cycling and the consequent risks to the environment and human health. This is unsurprising given the lack of baseline sampling of mercury in sediments and soils, especially wetland soils.</p>	<p>Although baseline concentrations of total mercury in sediment have not been collected during baseline sampling to date, Denison will collect background information pertaining to sediment total and methyl mercury from LSA lakes and rivers prior to site development.</p> <p>As indicated in EIS Section 8.4.6.1, Residual Effects Characterization, mercury is not associated with the local geology and is not expected to be released in the effluent at measurable levels and was therefore not identified as a COPC. Denison notes that there is potential for increased methylmercury production in the receiving environment under a certain combination of factors to which the Project</p>	<p><b>Partially addressed.</b></p> <p>BNDN requires Denison to commit to ongoing involvement of our Nation in mercury monitoring on site. The engagement process should be formalized in a BNDN-Denison process agreement and eventual Mutual Benefits Agreement.</p>

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			<p>The lack of baseline mercury sampling is a significant oversight given the significant impact that mining operations can have on mercury biogeochemistry, including mercury methylation, and mobility of mercury species within the environment.</p> <p>BNDN is very concerned with the complete lack of assessment of this important consideration for the project and the consequent inability for our members to adequately understand the potential risks to our Treaty and Aboriginal rights from these risks. Note that the absence of baseline information gathered can be reasonably considered an impact on our Treaty and Aboriginal rights as our members will avoid exercising our rights if BNDN lack the information to have confidence that it is safe to do so.</p>	<p>may contribute; however, prediction of methylmercury production is not practical. Denison commits to monitoring mercury and methylmercury in the aquatic environment over the life of the Project to determine the potential changes in mercury concentrations in fish tissue over time.</p> <p>As the Project advances and operational monitoring is underway, Denison will assess health risks from fish consumption by comparing fish tissue data collected during operation from the monitoring program against Health Canada's mercury guideline of 0.5 ug/g wet weight. This is a human health risk-based maximum permissible concentration. Mercury data presented throughout the draft EIS represents total mercury. Denison agrees to included methylmercury as part of the constituents monitored in fish throughout all project phases.</p>	
44	BNDN (February 28, 2023)	Table 2.2-4	<p>Comment #44: In Table 2.2-4 of the Draft EIS, Denison documents their planned chemical used for the project. BNDN notes that Denison intends to use zero-valent iron (ZVI) in the IWWTP, but not as part of the remediation solution for the mine. BNDN notes that ZVI is used to treat contaminants in groundwater around the world. Denison has not discussed whether</p>	<p>Refinement of the mining area decommissioning objectives and associated modelling will be done through updates to the Decommissioning Plan, and will be bounded by the objectives evaluated in the EIS. The use of zero-valent iron will be evaluated, as applicable.</p>	<p><b>Not Addressed.</b></p> <p>BNDN requires a commitment from Denison around groundwater remediation. If Denison wishes to defer certain aspects of BNDN's requests to the Decommissioning Plan, BNDN requires a commitment from Denison negotiate a Project Agreement with our Nation to give confidence that these matters will be addressed in a manner that mitigates impacts to our rights.</p>

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			<p>they have investigated the possibility of utilizing ZVI to remediate the wellfield during decommissioning.</p> <p>Protection of groundwater is of exceptional importance to BNDN. BNDN is concerned that Denison has not made a complete or comprehensive effort to understand how to minimize negative impacts to groundwater from the project using proven technologies that may be suitable for remediating the restoration solution in the wellfield during the decommissioning phase of the mine.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN requests that Denison investigate the suitability of using zero-valent iron to remediate the groundwater within the wellfield as part of the decommissioning process.</li> </ul> <p>See Section 4.3 for additional information on this topic (p. 25-28).</p>		
45	BNDN (February 28, 2023)	8.2.4.1.1 Site Water Management	<p>Comment #45: BNDN is concerned that the small volume of Effluent Monitoring and Release Ponds may create a lack of operational flexibility. For example, in the EIS, it is stated that:</p> <p>"Treated water from the IWWTP will be pumped to the three</p>	<p>a) During Construction, no effluent is expected to be released to the aquatic environment. Contact water stored in the Clean Waste Rock Pond during Construction will be held onsite until the Industrial Wastewater Treatment Plant (IWWTP) is commissioned. At that time the water from the pond would be conveyed to the IWWTP, treated, and released to Whitefish Lake per permit / license</p>	<p><b>a. Not Addressed.</b></p> <p>BNDN notes that the Proponent has not addressed the fact that this is a concern for the operational phase of the mine site and is specific to the efficacy of the effluent treatment plant. BNDN reiterates the request for the Proponent to design the</p>

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			<p>Effluent Monitoring and Release Ponds (each 3,300 m3). These ponds will be designed to hold effluent for 72 hours for testing before discharge to the environment.” – EIS, pp 723</p> <p>If water quality in these ponds exceeds discharge criteria, then there may be a need to store water so that additional treatment and monitoring can occur prior to discharge. However, only having capacity for three days of storage means it is unlikely the Proponent would be able to adequately treat water prior to reaching storage capacity, resulting in a need for emergency release of poor- quality water.</p> <p>Request/recommendation:</p> <p>a) BNDN requests that additional storage capacity be included as part of the design for water management system. This must include adequate storage capacity to ensure Denison has the ability to retain water for sufficient time to allow treatment, in the event that exceedances of water quality discharge criteria occur.</p> <p>Alternatively, Denison can commit to halting discharge (and operations if required) should water quality exceed discharge criteria. Discharge into Whitefish Lake would resume once water quality in the Effluent Monitoring and Release Ponds has been</p>	<p>requirements. The sequence for Construction activities will occur in a logical manner based on Project execution plans. For example, construction of the wellfield runoff pond will be prioritized during the early part of Construction and it will be able to hold 38,200 m3 of water. This will provide contingency and additional water storage capacity if contact water produced exceeds estimates or the volume available in the Clean Waste Rock Pond. Other secondary contingency measures are also available should the volume of water requiring management exceed site infrastructure storage volume. This could include use a hydrovac for offsite disposal.</p> <p>Section 2 Project Description, Section 2.2.3.9 Treated Effluent Monitoring and Release Ponds of the draft EIS outlines Denison's commitment to test effluent prior to discharge to Whitefish Lake, to ensure it meets federal and provincial discharge limits. Any pond not meeting the criteria will be recycled back to the Industrial Wastewater Treatment Plant via the process water pond.</p> <p>b) Denison expects the Provincial Approval to Operate a Pollutant Control Facility will contain specific effluent quality limits and monitoring to confirm effluent quality meets the approved limits. Denison will also be required to meet conditions in CNSC licensing documentation, as well as MDMER effluent discharge criteria.</p>	<p>effluent monitoring and release ponds to be increased in capacity to have at least 3 weeks of storage capacity.</p> <p><b>b. Not Addressed.</b></p> <p>BNDN intends to work with the Crown on this condition of approval.</p> <p><b>Comments for regulators are not addressed</b> and will be addressed through future engagement with the appropriate regulator.</p>



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			<p>returned to below discharge criteria.</p> <p>b) BNDN requests that the CNSC impose a condition of approval for the Project that requires Denison to must meet effluent discharge criteria prior to discharge and must halt operations if treated effluent in the monitoring and release ponds does not meet effluent discharge criteria.</p> <p>See Section 4.4 for additional information on this topic (p. 48-51).</p> <p>[Additional questions on this topic directed to regulators or government entities are included in the CNSC table]</p>		
46	BNDN (February 28, 2023)	Appendix 8D Aquatic Environment Baseline Study	<p>Comment #46: Fish community sampling is an important component of baseline studies for many reasons, including identifying species present (including any species at risk) and evaluating relative abundance (e.g., CPUE). A robust program should include multi- season and multi-year approach. This allows improved characterization of seasonal habitat use and accounts for natural variability.</p> <p>In the baseline aquatic assessments, the Proponent has focused fish community sampling in fall 2016, with some limited additional sampling of in spring</p>	<p>It is Denison's and their aquatic SME's opinion that the baseline fish community sampling efforts, including information provide from Indigenous and local resource users, provide a sufficient basis for conducting an effects assessment (draft EIS Section 8.3 Fish and Fish Habitat). Based on the information collected there is a good understanding of fish species presence / absence, relative abundance, fish habitat characteristics including areas that contribute to important life history stages (e.g., spawning areas) and fish habitat use. Denison does not believe further extensive baseline collection are needed to support the environmental assessment process but will implement targeted aquatic surveys prior to site development (see below).</p> <p>With respect to inclusion of the additional information requested the following is noted. Both detailed and summary data are presented in the Baseline Aquatic Environment Report that was provided as an appendix to</p>	<p><b>46 a. Not Addressed</b></p> <p>It is BNDN's opinion that the baseline fish community sampling efforts do not provide a sufficient basis for conducting an effects assessment. It is standard practice for aquatic baseline surveys to be undertaken in spring and fall for at least two years.</p> <p>Conducting relatively low community sampling effort in Sept 2016 and May 2017 does not provide adequate information on species diversity, abundance, or other measures of fish health for meaningful comparison. Such limited data creates a high likelihood of sampling bias and will make it exceedingly difficult to distinguish whether future changes are a result of impacts from the project or simply natural variations.</p>

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			<p>2017. This low level of effort will make it difficult to draw meaningful comparisons with monitoring work that will occur during the life of mine.</p> <p>Furthermore, CPUE has only been reported for electrofishing effort. As a result, there is very limited information available for relative abundance of fish in important waterbodies, including Whitefish Lake, McGowan Lake, and Russell Lake.</p> <p><b>**BNDN notes that a raw representation of total effort is provided in table A-13 of Appendix 8D but requests that an assessment of total effort, total catch, and CPUE be presented in the EIS for each capture method/location**</b></p> <p>Request/recommendation:</p> <p>a) BNDN requests that the Proponent build on the existing data for fish community sampling by collecting an additional round of spring and fall sampling.</p> <p>b) BNDN requests that an assessment of total effort, total catch, and CPUE be provided for each capture method/location where fish sampling has occurred.</p>	<p>the draft EIS. Effort and catch by sampling gear type by sampling location are shown for example in Table A-13 of the Baseline Aquatic Environment Report and metrics such as CPUE and total catches can be derived from these data if desired. Denison does not see the need to derive these metrics for presentation in the final version of the EIS (and supporting documents). This is in part related to the fact that the aquatic effects assessment did use abundance / relative abundance metrics such as CPUE as measurable parameters (MPs; a parameter or metric associated with a key indicator that can be used to detect and measure Project-related changes) to represent the fish and fish habitat VC, nor would it have been practical to use them for this purpose. There would be no practical or reliable way to derive such a prediction of change relative to Project-aquatic habitat interactions.</p> <p>While abundance / relative abundance metrics may be reported during future monitoring they would not likely be seen as a key measurable parameters for fish monitoring. More subtle measures of fish health would be used for this purpose - it is reasonable to assume that fish health measures will be more sensitive to change than abundance measures and provide an earlier indication of potential Project-related effects. This is what is envisioned and required by the MDMER EEM program, whereby measures of fish health (e.g., growth, reproduction, condition) are used to assess potential effects. As noted above, Denison will implement targeted aquatic surveys prior to site development. At this time it is envisioned that a pre-development EEM program survey following guidance provided in the Metal Mining Technical Guidance Document will be implemented at the site, with sampling at future effluent exposed and reference areas. Best practice is to undertake an analysis of candidate reference areas using the existing baseline information and investigate their utility as controls prior to project</p>	<b>46 b. Addressed</b>

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			See Section 4.4 for additional information on this topic (p. 48-51).	development. Execution of the pre-development EEM represents a Before-After-Control-Impact (BACI) design for aquatic monitoring, that will provide the ability to monitor change temporally (among sampling periods) and spatially (among sampling areas), thereby providing a more robust means by which to assess potential mine related effects.	
47	BNDN (February 28, 2023)	8.2.5 Mitigation Measures	<p>Comment #47: The Proponent has identified one mitigation measure that includes sharing of monitoring results to assess performance of water management system (EIS, pp 8-90, 8.2.5 Mitigation Measures). BNDN is supportive of this type of information sharing and believes that it can be an important component of transparency and trust- building between the Proponent and other parties. However, it is important that information sharing be done in a way that is accessible to community members.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN requests involvement in discussions with Denison about sharing of information related to water quality monitoring (and environmental monitoring more broadly). Some methods of communication that may support accessibility of data include: <ul style="list-style-type: none"> <li>Public-facing summary reports</li> </ul> </li> </ul>	<p>Denison agrees with BNDN that water quality monitoring will be interest to Indigenous nations and communities. As the Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, Denison has committed to collaborating with English River First Nation and Kineepik Métis Local on a monitoring regime, suited to each of their interests and needs. As part of these programs, Denison and the Indigenous community of ERFN and KML will be sharing information in an agreed-upon fashion. It is expected that the data collected through such monitoring regimes would also be relevant to other Indigenous nations who may have interest in the Project. BNDN will be informed throughout the monitoring program design and implementation process. Further details on the Public Information Program and Public Disclosure will form part of the documentation submitted in support of the CNSC licensing for the Project. It is also noted for further reference that there are existing, non-Denison monitoring programs such as the CNSC's Independent Environmental Monitoring Program (<a href="https://nuclearsafety.gc.ca/eng/resources/maps-of-nuclear-facilities/iemp/index.cfm">https://nuclearsafety.gc.ca/eng/resources/maps-of-nuclear-facilities/iemp/index.cfm</a>), and the Eastern Athabasca Regional Monitoring Program (<a href="http://www.earmp.ca/">www.earmp.ca/</a>). Results from these programs provide relevant information and can complement Denison's Project-specific monitoring program. One forum for discussion of monitoring results is the Northern Saskatchewan Environmental Quality Committee(<a href="https://www.saskatchewan.ca/residents/first-">https://www.saskatchewan.ca/residents/first-</a></p>	<p><b>Partially Addressed</b></p> <p>BNDN agrees that the information shared with English River First Nation and the Kineepik Métis Local is likely to be of interest to BNDN. However, our request for discussions with Denison about information sharing have been ignored. The refusal of even discussing such a possibility with BNDN is not reflective of the need for meaningful consultation on this Project.</p>

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			<p>on a regular schedule (e.g., quarterly or annually)</p> <ul style="list-style-type: none"> <li>○ Real-time access to environmental monitoring data through online database portals.</li> <li>○ Semi-regular community meetings hosted in Turnor Lake (e.g., every 12-18 months, as decided in conjunction with BNDN leadership within a Project Agreement with BNDN).</li> <li>○ Presentations to BNDN staff, leadership, and/or community members by BNDN Environmental Monitors. The specific methods used for information sharing and appropriate levels of support from Denison can be determined through</li> </ul>	<p>nations-citizens/saskatchewan-first-nationsmetis-and-northern-initiatives/northern-saskatchewan-environmental-quality-committee).</p> <p>Please see response to Comment #19 for Denison's response on a Project agreement.</p>	

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			consultation with BNDN.  See Section 4.4 for additional information on this topic (p. 48-51).		
48	BNDN (February 28, 2023)	8.5 Fish Health	<p>Comment #48: The Proponent has completed predictive modelling for concentrations of contaminants in fish tissue. For example, results of modeling for selenium indicate that concentrations will fluctuate throughout operations but remain below the recommended criterion of 2.83 mg/kg wet weight (from the US EPA). Should the Project proceed, information on contaminants in fish tissues will be highly relevant for BNDN and land users who eat fish from the area.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN requests that results of fish tissue monitoring (e.g., EEM studies) be shared in a publicly available and accessible way. This must include comparisons with guidelines and information on other contaminants of importance (e.g., mercury). Discussions regarding how this information can be shared with BNDN should occur alongside the discussions related to water</li> </ul>	<p>Denison agrees with BNDN that results of fish tissue monitoring will be interest to Indigenous nations and communities. As the Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, Denison has committed to collaborating with English River First Nation and Kineepik Métis Local on a monitoring regime, suited to each of their interests and needs. As part of these programs, Denison and the Indigenous community of ERFN and KML will be sharing information in an agreed-upon fashion. It is expected that the data collected through such monitoring regimes would also be relevant to other Indigenous nations who may have interest in the Project. BNDN will be informed throughout the monitoring program design and implementation process. Further details on the Public Information Program and Public</p> <p>Disclosure will form part of the documentation submitted in support of the CNSC licensing for the Project. It is also noted for further reference that there are existing, non-Denison monitoring programs such as the CNSC's Independent Environmental Monitoring Program (<a href="https://nuclearsafety.gc.ca/eng/resources/maps-of-nuclear-facilities/iemp/index.cfm">https://nuclearsafety.gc.ca/eng/resources/maps-of-nuclear-facilities/iemp/index.cfm</a>), and the Eastern Athabasca Regional Monitoring Program (<a href="http://www.earmp.ca/">www.earmp.ca/</a>). Results from these programs provide relevant information and can complement Denison's Project-specific monitoring program. One forum for discussion of monitoring results is the Northern</p> <p>Saskatchewan Environmental Quality Committee(<a href="https://www.saskatchewan.ca/residents/first-">https://www.saskatchewan.ca/residents/first-</a></p>	<p><b>Partially Addressed</b></p> <p>BNDN agrees that the information shared with English River First Nation and the Kineepik Métis Local is likely to be of interest to BNDN. However, our request for discussions with Denison about information sharing have been ignored. The refusal of even discussing such a possibility with BNDN is not reflective of the need for meaningful consultation on this Project.</p>

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			quality monitoring results (see comment above). See Section 4.4 for additional information on this topic (p. 48-51).	nations-citizens/saskatchewan-first-nationsmetis-and-northern-initiatives/northern-saskatchewan-environmental-quality-committee).  Please see response to Comment #19 for Denison's response on a Project agreement.	
49	BNDN (February 28, 2023)	8.3 Fish and Fish Habitat	<p>Comment #49: Increased fishing pressure in Whitefish Lake from employees working at the Project site and increased ability for visitors due to improved access could negatively impact fish populations.</p> <p>Preferred species, large-bodied fish, and older individuals are most likely to be targeted. This may have negative consequences on the population structure of fish in the lake as well as the ability of BNDN members to exercise fishing rights.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN recommends that the policies Denison sets related to staff and contractors fishing while on site are determined collaboratively with BNDN through the Environmental Committee defined in a BNDN-Denison project agreement.</li> </ul> <p>See Section 4.4 for additional information on this topic (p. 48-51).</p>	<p>Please note that the Project will not change public access to the area. The existing gate on Highway 914 near Cameco's Key Lake Operation will remain in place and no changes to the gate and the process for controlling access to Highway 914 north of the Key Lake Operation are proposed as part of the Wheeler River Project. As described in the draft EIS, workforce members will be transported to/from site via a fly-in/fly-out rotation and will, therefore, not use ground travel options during shift changes, which will eliminate fishing on local lakes during commutes to/from the site and during time off work. Denison site vehicles will not be available for recreational purposes. While at the Project site and off duty, workers may opt to fish local waterbodies. To protect sustainable use of resources, only catch and release of fish will be encouraged, and fish storage or cooking facilities will not be provided. To prevent entry of land users from entering the Project Area, Denison will control access to the property with both a north and south security gate. Overall, given a lack of resources to access fishing locations and store fish harvests, workforce fishing is expected to cause minimal disturbances to local users. Section 11 of the draft EIS provides the assessment of potential Project effects on Indigenous Land and Resource Use (Section 11.1) and Other Land and Resource Use (Section 11.2). The mitigation measures proposed in the aquatic and terrestrial assessments translated into undetectable changes in resource availability to existing and future users and rightsholders. The assessment does not take a distinctions-based approach (i.e., the potential impact on</p>	<b>Addressed.</b>



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				<p>each Indigenous community is not evaluated separately), but rather on the key indicators and associated measurable parameters. Mitigation to eliminate, reduce, or control potential adverse effects of the Project on Indigenous Land and Resource Use would apply to any uses proximal to the Project. Given proven mitigation is to be applied to traffic disturbances, noise, air quality, and increased competition for resources, the effects are expected to be minimal. As outlined in Denison's Indigenous Peoples Policy, Denison is committed to respecting Indigenous knowledge and values regarding environmental stewardship and Indigenous peoples' connection to the land, and to minimize potential effects, wherever possible.</p> <p>Detailed Project plans and programs related to staff and contractor fishing will be developed to support Project permitting and licensing efforts.</p>	
50	BNDN (February 28, 2023)	8.3.4 Assessment of Project- related Effects	<p>Comment #50: The EIS provides very few details regarding how spills, leaks, and other accidents and malfunctions will be managed to mitigate the impacts on fish and fish habitat. Over the life of the mine there will inevitably be accidents and malfunctions. One of the most common environmental issues that will be encountered is leaks and spills. These can typically be managed through good monitoring and preparedness, though if they occur near water, the ability to clean them quickly is difficult and can result in harm to aquatic communities.</p> <p>Request/recommendation:</p>	<p>A standalone Accidents and Malfunctions (A&amp;M) assessment was completed and is summarized in Section 14 of the EIS (full report is Appendix 14-A of the EIS). The A&amp;M assessment considered almost 70 accident scenarios including many that would relate to the unplanned release of chemicals and radiation to the environment with potential to effect country foods. Specific scenarios including the release of chemicals and radiation to the aquatic environment and to the terrestrial environment adjacent to the ERFN and KML culture camps located along Hwy 914. The overall risks in consideration of likelihood and consequence were characterized as low. The assessment concluded that with planned engineering / environmental design features, mitigation measures, and emergency response, as well as implementing industry best practices that the risks to the environment from accidents and malfunctions can be reduced to levels that are as low as reasonably practical.</p>	<p><b>Partially Addressed.</b></p> <p>BNDN appreciates the additional information provided on accidents and malfunctions and on the Emergency Preparedness and Response Program.</p> <p>However, BNDN notes that the refusal to develop an Environmental Committee or similar mechanism with BNDN is not reflective of the need for meaningful consultation and active involvement on this Project.</p>

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			<ul style="list-style-type: none"> <li>BNDN request additional information regarding the development of spill prevention programs, emergency management procedures, and monitoring and remediation programs for accidents and malfunctions. Representatives from BNDN need to be included in the planning and execution of monitoring and remediation activities to provide community perspectives in Project activities. One method through which BNDN can be involved in these discussions is through the development of an Environmental Committee (see comment #51 also).</li> </ul> <p>See Section 4.4 for additional information on this topic (p. 48-51).</p>	<p>Section 2.9.1.3 of the draft EIS provides Denison's commitment to develop an Environmental Management System, which includes an Emergency Preparedness and Response Program (EPRP) and an Environmental Protection Program (EPP; including an Environmental Monitoring Plan). The EPRP would be established to identify how the Project will prepare for and addresses emergencies that may affect the health and safety of persons, the environment, and the protection of property. The EPRP would be developed in a manner that aligns with guidance provided by CNSC in REGDOC-2.10.1. The EPP would be established to provide an overarching framework for key environmental monitoring and management plans and to ensure a means to demonstrate compliance with applicable environmental regulatory requirements and other performance targets that Denison may set. As noted on the draft EIS, Denison has opted to execute the overall Project approvals process - that is, the environmental assessment and licensing / permitting processes - in series and not simultaneously. As such, the details of these programs and plans will be developed during the licensing / permitting phase and will be available for review at that time rather than as part of the final EIS. The level of information provided in the draft EIS is appropriate for the current stage of the Project approvals process.</p> <p>As the Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, Denison has committed to collaborating with English River First Nation and Kineepik Métis Local on a monitoring regime, suited to each of their interests and needs. As part of these programs, Denison and the Indigenous community of ERFN and KML will be sharing information in an agreed-upon fashion. It is expected that the data collected through such monitoring regimes as described above would also be relevant to other Indigenous nations who may have interest in the Project. Denison does not</p>	

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				anticipate any funding to BNDN at this time. BNDN will be informed throughout the monitoring program design and implementation process. Monitoring program design and implementation will be guided by the following principles: programs will meet regulatory requirements, programs will confirm the effectiveness of mitigation measures and predictions made in the assessment, programs will be implemented in an adaptive management framework (if/where applicable) to reduce effects during the lifetime of the Project, and program spatial boundaries will be sufficiently extensive to measure EIS predictions.	
51	BNDN (February 28, 2023)	8.3.8 Monitoring and Follow-up	<p>Comment #51: There is no discussion on how Indigenous communities, such as BNDN, will be included in environmental management, emergency management, monitoring, and remediation. This includes issues related to ongoing permitting or specific remediation such as in the case of an accident or malfunction.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>To support BNDN's ongoing participation in monitoring and oversight of the Project, BNDN request the establishment of an Environmental Committee or similar oversight mechanism. The purpose of the committee will be to review monitoring data and monitoring reports produced during the life-of-mine to ensure that the</li> </ul>	<p>As the Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, Denison has committed to collaborating with English River First Nation and Kineepik Métis Local on a monitoring regime, suited to each of their interests and needs. As part of these programs, Denison and the Indigenous community of ERFN and KML will be sharing information in an agreed-upon fashion. It is expected that the data collected through such monitoring regimes as described above would also be relevant to other Indigenous nations who may have interest in the Project. Denison does not anticipate any funding to BNDN at this time.</p> <p>BNDN will be informed throughout the monitoring program design and implementation process. Monitoring program design and implementation will be guided by the following principles: meet regulatory requirements, confirm the effectiveness of mitigation measures and predictions made in the assessment, implementing adaptive management (if/where applicable) to reduce effects during the lifetime of the Project, and will ensure that spatial boundaries are sufficiently extensive to measure EIS predictions.</p>	<p><b>Not Addressed</b></p> <p>The refusal to develop an Environmental Committee or similar mechanism with BNDN is not reflective of the need for meaningful consultation and active involvement on this Project.</p>

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			<p>environmental protection is sufficient for all VCs. The committee can also participate in permitting throughout the life-of-mine for all relevant applications (e.g., Fisheries Act Authorizations, water permits, Closure Plan updates etc.) and provide input to management plans (e.g., EPPs, Surface Water Management Plan, Environmental Monitoring Plans, etc.). The specific details of such a committee can be developed through consultation with BNDN and must be formalized through a BNDN-Denison project agreement.</p> <p>See Section 4.4 for additional information on this topic (p. 48-51).</p>		
52	BNDN (February 28, 2023)	8.3.5 Mitigation Measures	<p>Comment #52: Mitigation measures are an important component of Project management which are critical for environmental protection. Upon review of the suggested mitigation measures, BNDN has identified some opportunities for additional mitigation.</p> <p>Request/recommendation:</p>	<p>Denison acknowledges the input and will consider the suggestions as the project moves forward. The draft EIS contains a number of mitigations referenced in different biophysical and human environment assessments; these mitigations together form Denison's fulsome commitment list of Project mitigation measures moving forward. Many of the proposed additional mitigation measures are already included in the draft EIS. A few examples are provided here:</p> <ul style="list-style-type: none"> <li>Section 2.2.7.6: No fuels, oils, or other hazardous substances will be stored within 100 m of any water</li> </ul>	<b>Addressed.</b>

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			<ul style="list-style-type: none"> <li>BNDN request that the following standard mitigation measures be included as part of the list described in Section 8.3.5:               <ul style="list-style-type: none"> <li>Maintain vegetated buffers of at least 100m with all waterbodies wherever practical;</li> <li>All equipment must be inspected prior to use on-site to ensure that they are clean and free of soil or other contaminants;</li> <li>Maintain spill kits on all vehicles used on-site;</li> <li>All machinery will be kept in good working order and inspected regularly for drips, leaks, and spills;</li> <li>In the event of a spill, Denison will take all necessary actions, where it is safe to do so, to immediately stop the spill, contain contaminants, clean up and dispose of</li> </ul> </li> </ul>	<p>body. No equipment maintenance or re-fuelling will be conducted within 100 m of a water body.</p> <ul style="list-style-type: none"> <li>Section 2.8: Fuel storage and distribution infrastructure will be constructed in accordance with applicable legislation requirements; Fuels will be stored in approved, above-ground, double-walled storage tank(s) equipped with secondary containment in accordance with provincial regulations and standards; Stationary and mobile equipment will be fueled with a fuel-dispensing truck.</li> <li>Section 9.2.5.2.7: Standard operating procedures will be employed, and regular inspections of equipment and machinery will be completed to verify they are in good working order; Vehicles and equipment will be maintained in good working condition (e.g., no leaks) and furnished with industry-standard spill response kits.</li> </ul> <p>Denison also notes that Section 2.9.1.3 of the draft EIS provides Denison's commitment to develop an Environmental Management System, which includes an Emergency Preparedness and Response Program (EPRP) and an Environmental Protection Program (EPP; including an Environmental Monitoring Plan). The EPRP would be established to identify how the Project will prepare for and addresses emergencies that may affect the health and safety of persons, the environment, and the protection of property. The EPRP would be developed in a manner that aligns with guidance provided by CNSC in REGDOC-2.10.1. The EPP would be established to provide an overarching framework for key environmental monitoring and management plans and to ensure a means to demonstrate compliance with applicable environmental regulatory requirements and other performance targets that Denison may set. As noted on the draft EIS, Denison has opted to execute the overall Project approvals process - that is, the</p>	

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			<p>contaminated materials;</p> <ul style="list-style-type: none"> <li>Denison will maintain a record of all spills and report upon each spill within 48 hours, including information on spill response, cleanup, and remediation;</li> <li>Vehicle refueling will occur at a distance of at least 100m;</li> <li>Fuel tanks will be located in areas that are lined and contained;</li> <li>Fuel tanks will be located at least 500m from known waterbodies.</li> </ul> <p>See Section 4.4 for additional information on this topic (p. 48-51).</p>	<p>environmental assessment and licensing / permitting processes - in series and not simultaneously. As such, the details of these programs and plans will be developed during the licensing / permitting phase and will be available for review at that time rather than as part of the final EIS. The level of information provided in the draft EIS is appropriate for the current stage of the Project approvals process.</p> <p>As the Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, Denison has committed to collaborating with English River First Nation and Kineepik Métis Local on a monitoring regime, suited to each of their interests and needs. As part of these programs, Denison and the Indigenous community of ERFN and KML will be sharing information in an agreed-upon fashion. It is expected that the data collected through such monitoring regimes as described above would also be relevant to other Indigenous nations who may have interest in the Project. Denison does not anticipate any funding to BNDN at this time. BNDN will be informed throughout the monitoring program design and implementation process. Monitoring program design and implementation will be guided by the following principles: meet regulatory requirements, confirm the effectiveness of mitigation measures and predictions made in the assessment, implementing adaptive management (if/where applicable) to reduce effects during the lifetime of the Project, and will ensure that spatial boundaries are sufficiently extensive to measure EIS predictions.</p>	
53	BNDN (February 28, 2023)	8.3 Fish and Fish Habitat	Comment #53: Unfortunately, due to the nature of planning and licensing for complex projects such as the Wheeler River mine, there are many documents, plans, licenses and approvals which may not be available for review during	As the Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, Denison has committed to collaborating with English River First Nation and Kineepik Métis Local on a monitoring regime, suited to each of their interests and needs. As part of these programs, Denison and the Indigenous	<p><b>Not Addressed</b></p> <p>The refusal to commit to involvement of BNDN in ongoing planning and licencing (including the development of an Environmental Committee or similar mechanism) is not reflective of the need for</p>



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			<p>the environmental assessment process, or which will take place subsequent to completion of the assessment. For example, Denison will be preparing important documentation governing environmental management of the Project following the Environmental Assessment. While these are not currently available, there is a need to engage with BNDN to obtain input on these documents as planning progresses. Request/recommendation:</p> <ul style="list-style-type: none"> <li>• BNDN requests that Denison consult with our staff members and advisors on important environmental documentation/plans/licenses that are not available as part of the EA process. This list includes, but is not limited to: <ul style="list-style-type: none"> <li>○ Surface Water Management Program</li> <li>○ Erosion and Sediment Control Plan</li> <li>○ Fish Salvage Plan</li> <li>○ Spill Response Plan</li> <li>○ MDMER approvals and EEM plans</li> <li>○ Saskatchewan Water Security Agency permits for Aquatic habitat protection</li> <li>○ Operating a waterworks</li> </ul> </li> </ul>	<p>community of ERFN and KML will be sharing information in an agreed-upon fashion. It is expected that the data collected through such monitoring regimes as described above would also be relevant to other Indigenous nations who may have interest in the Project. Denison does not anticipate any funding to BNDN at this time.</p> <p>BNDN will be informed throughout the monitoring program design and implementation process. Monitoring program design and implementation will be guided by the following principles: meet regulatory requirements, confirm the effectiveness of mitigation measures and predictions made in the assessment, implementing adaptive management (if/where applicable) to reduce effects during the lifetime of the Project, and will ensure that spatial boundaries are sufficiently extensive to measure EIS predictions.</p>	<p>meaningful consultation and active involvement on this Project.</p>

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			<ul style="list-style-type: none"> <li>○ Operating a sewage works</li> <li>○ Effluent Monitoring Plan</li> <li>○ Environmental Monitoring Plan(s)</li> <li>○ Decommissioning and Reclamation Plan</li> </ul> <p>Engagement with BNDN on these plans should occur through an Environmental Committee or similar oversight mechanism (see above). The specific details of such a committee can be developed through consultation with BNDN and must be formalized through a BNDN- Denison project agreement for the Wheeler River Project. See Section 4.4 for additional information on this topic (p. 48-51).</p>		
54	BNDN (February 28, 2023)	8.4.3.1 Methodology and Metrics	<p>Comment #54: The collection of sediment samples was completed using cores and grab petit Ponar in three upstream reference locations (LA-7A, LA-8, and LA-9), Whitefish Lake (LA-5 and LA-6), McGowan Lake (LA-1), and Russell Lake (LAB-1 and LAB-2). Sediment quality testing was conducted to characterize COPC including nutrients, metals, and radionuclides.</p> <p>Only the top 2 cm of cores of grab samples were analyzed in the lab. It is not clear in the methodology</p>	<p>Baseline sediment chemistry was conducted on the 0-2cm horizon as this is the area in contact with surface water and the zone inhabited by benthic invertebrates. It is also the sediment layer in which changes in sediment chemistry would be expected to change in response to Project-related inputs and thus provides the most appropriate data for comparison to follow-up monitoring.</p> <p>As the Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, Denison has committed to collaborating with English River First Nation and Kineepik Métis Local on a monitoring regime, suited to each of their interests and needs. As part of these programs, Denison and the Indigenous community of ERFN and KML will be sharing information in an agreed-upon fashion. It is expected that the data</p>	<b>Addressed.</b>

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			<p>why laboratory analysis was limited to the top 2 cm.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN requests additional information on the rationale for only analyzing COPC within the top 2 cm of sediment samples. This should include information on whether this limited data will negatively affect the ability to evaluate potential impacts of groundwater contamination entering Whitefish Lake from below during operations, decommissioning, and future centuries.</li> </ul> <p>See Section 4.4 for additional information on this topic (p. 48-51).</p>	<p>collected through such monitoring regimes as described above would also be relevant to other Indigenous nations who may have interest in the Project. Denison does not anticipate any funding to BNDN at this time.</p> <p>BNDN will be informed throughout the monitoring program design and implementation process. Monitoring program design and implementation will be guided by the following principles: meet regulatory requirements, confirm the effectiveness of mitigation measures and predictions made in the assessment, implementing adaptive management (if/where applicable) to reduce effects during the lifetime of the Project, and will ensure that spatial boundaries are sufficiently extensive to measure EIS predictions.</p> <p>The details of monitoring and follow-up plans are being developed to support the separate process of Project licensing and permitting. The specific means by which provincial and federal authorities, and Indigenous Nations and communities will be engaged in developing the follow-up and monitoring program, including the information-sharing program, are currently under consideration with the Denison project team. It is noted that Section 4.2.1 of the draft EIS provides the variety of ways in which Denison has engaged with Interested Parties to date and it is assumed it would continue to use these means and others that may be identified to fulfil its key corporate principals for developing positive relationships (see draft EIS Section 4.2).</p>	
55	BNDN (February 28, 2023)	8.4.3.2.3 Metals	Comment #55: Despite significant concerns regarding the presence of mercury in water and sediment, the Proponent has elected not to test sediments for it. BNDN acknowledges that the mining process does not use mercury and	Denison will collect background information pertaining to sediment total and methyl mercury from LSA lakes and rivers prior to site development.	<b>Addressed.</b>

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			<p>it is present in low levels in the background environment. However, for the purposes of good stewardship, communications, and trust, having an assessment of the background levels of mercury is important to BNDN.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN requests that the proponent sample sediments for mercury to establish background levels. This is information that is culturally important given the potential harm and the psychological toll of mercury in aquatic ecosystems. Background levels can then be compared with ongoing monitoring throughout the life of mine.</li> </ul> <p>See Section 4.4 for additional information on this topic (p. 48-51).</p>		
56	BNDN (February 28, 2023)	Table 8.5-2: Baseline Fish Tissue Chemistry Summary	<p>Comment #56: In Section 8.5 Fish Health, the Proponent has included a summary table with information on contaminants in fish tissue and bone tissue. The information provided does not include total number of samples.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN requests table 8.5-2 be updated with information on</li> </ul>	The requested information is presented in Appendix 8-D in the draft EIS.	<b>Addressed</b> – the information is found in Table 3-10 of Appendix 8-D

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			total number of fish (n) samples for each location. See Section 4.4 for additional information on this topic (p. 48-51).		
57	BNDN (February 28, 2023)	9.2.5.2 Additional Vegetation-specific Mitigation Measures	<p>Comment #57: The Proponent has committed to using seed that is certified weed-free, with a valid "Certificate of Seed Analysis" for the revegetation process.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN recommends that, in addition to using weed-free certified seeds, consultation occur with Indigenous communities, including BNDN, to select an appropriate seed mix that closely mimics the pre-construction plant community and includes plants of medicinal and traditional importance. This could be done by either sourcing seed mix from a local seed distributor, or using wild seed propagated from plants collected from the Project Area. In addition, the seed mix should contain native plant species only.</li> </ul> <p>See Section 4.5 for additional information on this topic (p. 59-60).</p>	<p>Specific details of the seed mixture and overall reclamation plan will be developed through updates to the Decommissioning Plan, on which Interested Parties will be provided opportunity for review and input. The decommission plan in the EIS is a conceptual plan. A preliminary decommissioning plan will be included with licence application and reviewed and updated during operations. Prior to executing Decommissioning activities, Denison shall prepare and submit a detailed decommissioning plan to regulators for acceptance, which builds on the preliminary decommissioning plan.</p> <p>Additionally, Denison has partnered with the University of Saskatchewan and Northwest Communities Environmental Services (an Indigenous-owned environmental company) under the Developing Eco-Restoration Together (DERT) program. This unique project aims to co-create ecological restoration practices that centre Indigenous peoples, worldviews, and values while also braiding knowledge from the land, Indigenous knowledge, and western science. The project is supported by the three partners but is ultimately guided by the Indigenous Project Advisory Board, and the Community Liaison/Education Coordinator. Through restoration trials, community engagement, and various planting techniques, Denison, with their partners are seeking to return ecosystem functions in areas where they have been previously disturbed (e.g., exploration cutlines). Through collaboration with community members, University of Saskatchewan, industry partners, two graduate students, and local youth, this project is expected to ultimately inform the creation of a framework</p>	<b>Addressed.</b>

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				for effective restoration practices in northern Saskatchewan that centre on caribou and Indigenous communities.	
58	BNDN (February 28, 2023)	9.3.4.2.1 Alteration and/or Loss of Habitat Figure 9.3-9 Available Habitat for Moose	<p>Comment #58: The EIS uses a 500 m buffer around the Project Area to define indirect habitat alteration for moose (Figure 9.3-9). This includes habitat alteration from sensory disturbance such as anthropogenic noises, vehicle traffic, aircraft traffic, and increased predator access. However, the EIS references scientific research that states that roads and vehicle traffic can affect moose habitat selection, resulting in habitat avoidance up to 1 km from roads (Shanley and Pyare 2011).</p> <p>Furthermore, the EIS acknowledges uncertainty concerning the available background and baseline information used to identify available moose habitat in this assessment.</p> <p>Without considering a larger avoidance buffer (as demonstrated in various research) around proposed anthropogenic disturbances, BNDN believe that the EIS underestimates the potential extent of moose habitat alteration. To be more conservative, a 1000 m buffer</p>	<p>It is Denison's and their terrestrial SME's opinion that the approach used to characterize moose habitat alteration provided a sufficient basis for conducting the ungulate (VC) moose (KI) effects assessment (draft EIS Section 9.3). The Project Area had a 500 m buffer applied to account for indirect effects/habitat alteration; this area is within the wildlife LSA. Availability of habitat is not a key limiting factor for moose populations.</p>	<p><b>Not Addressed</b></p> <p>The response does not adequately address BNDN's concern that the 500 m buffer underestimates the extent of moose habitat alteration. BNDN reiterates the following points.</p> <ol style="list-style-type: none"> <li>I. The selection of a 500 m buffer appears arbitrary and is not substantiated by peer-reviewed literature. Research (Shanley and Pyare 2011) indicates that moose may avoid habitat up to 1 km from roads and vehicle traffic. Furthermore, the proponent cites professional opinion as justification for using a 500 m buffer. However, BNDN requires reassurances that are substantiated by peer-reviewed scientific literature rather than subjective interpretation.</li> <li>II. The EIS acknowledges uncertainty in available moose habitat data, yet the response does not clarify how this uncertainty was factored into the assessment or whether a precautionary approach was taken.</li> </ol>



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			<p>should be used surrounding the Project area.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN recommends using a 1000 m buffer surrounding the Project Area to measure the extent of moose habitat alteration. BNDN believe this analysis will provide a more accurate and conservative outcome with respect to potential project impacts to moose.</li> </ul> <p>See Section 4.5 for additional information on this topic (p. 59-60).</p>		<p>III. Habitat selection is not simply based on availability but also on predation avoidance. Moose tend to avoid areas with increased risk of predation. Roads, trails, and clearings created by mining facilitate wolf movement, making predation more efficient and therefore reducing the available moose habitat. The proponent's response minimizes this risk by focusing only on habitat availability, failing to acknowledge that increased predator access and moose displacement fundamentally alter predation dynamics.</p> <p>BNDN reiterates our 1,000 m buffer be considered to provide a more conservative and ecologically relevant assessment of moose habitat alteration. Without further justification, the 500 m buffer appears insufficient to capture the full extent of indirect impacts.</p>
59	BNDN (February 28, 2023)	9.3.5.2.7 Mitigation Measures	<p>Comment #59: One of the mitigation measures implemented to protect ungulates, furbearers, and Woodland Caribou includes de-icing the Project roads for winter traction, which will result in fewer wildlife collisions.</p> <p>Salt used for de-icing is likely to attract ungulates, including moose,</p>	Denison has committed to using alternative measures on Project roads for de-icing and winter traction (e.g., sand, gravel) or dust suppression (e.g., water) whenever practicable.	<b>Addressed.</b>

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			<p>to roadways to satisfy their mineral requirements (Rea et al 2021).</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN requests that the Proponent revise this mitigation measure to explicitly state that salt will not be used for de-icing Project roads to avoid attracting ungulates to the Project Area. This mitigation measure can be found in section 9.3.5.2.7 Road and Traffic Management.</li> </ul> <p>See Section 4.5 for additional information on this topic (p. 59-60).</p>		
60	BNDN (February 28, 2023)	9.3.6.4.1 Alteration and/or Loss of Habitat Figure 9.3-14	<p>Comment #60: The EIS uses a 500 m buffer around the Project Area to define Woodland Caribou habitat alteration from sensory disturbance. However, scientific research expects up to 5 km (or greater) of Caribou avoidance around mining Projects, and that related semi- permeable barriers, such as roads, likely exacerbate this effective habitat loss [(Smith et al. 2000; Dyer et al. 2001; Courtois et al. 2008; Vistnes and Nellemann 2008; Nagy 2011; Polfus et al. 2011; Leblond et al. 2011, 2013; CPAWS Wildlands League 2013; Johnson et al. 2015)].</p>	<p>It is Denison's and their terrestrial SME's opinion that the approach used to characterize caribou habitat alteration provided a sufficient basis for conducting the caribou effects assessment (draft EIS Section 9.3). The Project Area had a 500 m buffer applied to account for indirect effects/habitat alteration; this area is within the wildlife LSA (refer to Figure 9.3-9 for a map showing the spatial areas). The 500 m buffer for habitat alteration was selected in accordance with ECCC's (2020) assessment of disturbed areas, which buffered (500 m) anthropogenic disturbances to evaluate the habitat. The alteration of available habitat is quantified in this EIS by applying a buffer of 500 m around the Project Area in which Project effects in the form of sensory disturbance are likely to affect available the habitat and make it functionally unavailable for use.</p> <p>Following submission of the draft EIS in October 2022, Denison has met with Saskatchewan Ministry of</p>	<p><b>Not Addressed.</b></p> <p>The Environmental Assessment (EA) process is meant to safeguard BNDN's lands, waters and wildlife, yet it is fundamentally flawed in its ability to prevent significant adverse impacts on caribou. Despite decades of policy and regulatory measures, caribou populations continue to decline, highlighting the failure of existing approaches to provide effective protection. As Dene people, we have long understood that the EA process is insufficient to ensure the survival of caribou. In recent years, emerging western scientific research has confirmed this understanding, reinforcing the need for stronger protections (Collard et al., 2020; Cameron &amp; Kennedy, 2023). The EA process often downplays the</p>

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			<p>Without considering a larger avoidance buffer (as demonstrated in various research) around proposed anthropogenic disturbances, we believe that the EIS underestimates the potential extent of Caribou habitat alteration.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN requests that the Proponent present the extent of caribou habitat alteration/loss from the proposed Project within a range of uncertainty informed by scientific research.</li> </ul> <p>Specifically, the percent alteration of habitats must be presented using a 500 m (low end) up to a 5,000 m (high end) buffer. BNDN believe this analysis will provide a more accurate range of outcomes with respect to potential project impacts to caribou.</p> <p>See Section 4.5 for additional information on this topic (p. 59-60).</p>	<p>Environment (SK ENV) staff to develop a framework for future woodland caribou offset. This information has been presented to the provincial and federal review teams as part of the response to federal information requirements in August 2023 as the Conceptual Caribou Mitigation Plan. The Conceptual Caribou Mitigation Plan (the Plan), developed proactively by Denison, has a different objective than the draft EIS. The Plan builds on the assessment of potential Project effects and commitments to consider additional mitigation (offset) to account for non-significant residual effects highlighted in the draft EIS. The Plan is expected to be advanced with ongoing consultation with the SK ENV, as SK ENV finalize the caribou range plan for SK1. The EIS is a conservative planning tool, whereas the Plan is a practical, living document designed to define management works associated with caribou. The Plan is not a requirement for EA determination per se, but is provided as a guidance document to help Denison proactively describe and inform the development and implementation of appropriate mitigation measures related to caribou and their habitat. The Plan is an evergreen document. It will be consistent with the management goals of SK ENV for the SK-1 caribou conservation unit (once available) and will be developed/refined in consultation with local communities including English River First Nation and Kineepik Métis Local in Pinehouse and SK ENV. Denison is continuing to work with SK ENV to estimate habitat offset scenarios based on the current Project design which will be refined as the Project advances. A boreal caribou habitat offset calculator is under development by SK ENV and Denison is collaborating with SK ENV to define key scenario attributes.</p> <p>References:</p> <p>Environment and Climate Change Canada (ECCC). 2020. Amended Recovery Strategy for the Woodland Caribou</p>	<p>risks to caribou populations and underestimates the true extent of impacts (Collard et al., 2020; Cameron &amp; Kennedy, 2023). The reliance on a 500-meter buffer as the basis for assessing habitat alteration is a clear example of this severe underestimation.</p> <p>Denison's reliance on a 500-meter buffer to assess caribou habitat alteration is insufficient and does not align with the broader scientific consensus on caribou avoidance of industrial disturbances. While ECCC (2020) recommends a 500-meter buffer to assess habitat disturbance, this buffer represents the low end of potential impacts and is insufficient to fully account for caribou avoidance behavior. Research has shown that caribou avoidance behavior extends significantly beyond this distance, with many studies supporting avoidance distances of up to 5 kilometers or greater (Dyer et al. 2001; Courtois et al. 2008; Vistnes and Nellemann 2008; Leblond et al. 2011, 2013; Johnson et al. 2015).</p> <p>Furthermore, Other jurisdictions, such as Ontario, apply much larger buffer distances, with recommendations extending to 10 kilometers to better reflect the true impact of sensory disturbances. This stark contrast highlights the severe underestimation in the EIS, where a 500-meter buffer fails to account for the full extent of caribou avoidance behavior.</p> <p>BNDN requests that the percent alteration of habitats be presented using a 500 m (low</p>

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				(Rangifer tarandus caribou), Boreal Population, in Canada. Species at Risk Act Recovery Strategy Series. Environment and Climate Change Canada, Ottawa. xiii + 143pp.	<p>end) up to a 5,000 m (high end) buffer. BNDN believes this analysis will provide a more accurate range of outcomes with respect to potential project impacts on caribou.</p> <p>Collard, R., Dempsey, J., &amp; Holmberg, M. (2020). Extirpation despite regulation? Environmental assessment and caribou. Conservation Science and Practice, 2(9).  <a href="https://doi.org/10.1111/csp2.166">https://doi.org/10.1111/csp2.166</a></p> <p>Cameron, E., &amp; Kennedy, S. (2023). Can environmental assessment protect caribou? Analysis of EA in Nunavut, Canada, 1999-2019. Conservation and Society, 21(2), 121-132.  <a href="https://doi.org/10.4103/cs.cs.54.22">https://doi.org/10.4103/cs.cs.54.22</a></p>
61	BNDN (February 28, 2023)	9.4.3.3 Bird Species at Risk Appendix 9-B	Comment #61: Incidental observations of Barn Swallow ( <i>Hirundo rustica</i> ) occurred during baseline studies (Appendix 9- B). This bird SAR was not included as a Key Indicator for this Valued Component. Instead, the EIS represents the Barn Swallow using two other SAR birds including the Olive-sided Flycatcher ( <i>Contopus cooperi</i> ), and Common Nighthawk ( <i>Chordeiles minor</i> ). This does not make ecological sense because Barn Swallows use distinct habitat and exhibit distinct breeding behaviour from these other SAR. Therefore, the barn swallow should be its own key indicator because it	The process and rationale for selection of VCs and establishment of KIs and associated MPs is described in Section 5.3 in Section 5. Raptors, Migratory Breeding Birds, and Bird Species at Risk VCs were selected based on their likelihood of interaction with the Project, as well as their contributing roles to biodiversity and ecosystem function. The methodology for the habitat-based assessment appropriately evaluated potential adverse effects on avian species using the accepted VC and KI approach for focus of the assessment. As described in the EIS, the Common Nighthawk (similar to the Barn Swallow) is an aerial insectivore that uses a variety of habitats, including anthropogenically disturbed and cleared areas (Section 9.4.3.3.1). As such, effects on these anthropogenically disturbed areas were appropriately assessed in the habitat-based EA methodology. Since Barn Swallows nest almost exclusively on human-made structures, specific Barn Swallow exclusion methods will be added as mitigation	<b>Addressed.</b>

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			<p>will have unique levels of habitat alteration/loss and levels of mortality than the other species.</p> <p>In addition, Barn Swallows have a higher likelihood of being impacted by project activities than the other representative SAR, because they nest directly on artificial structures. The EIS states that species that nest on buildings are more susceptible to entrapment in Project components. This species is listed as Threatened on SARA Schedule 1. In Canada, the Migratory Birds Convention Act, 1994 protects Barn Swallow, its nests, and eggs.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>a) BNDN requests that the Barn Swallow is included as its own key indicator for the VC Bird SAR within the EIS.</li> <li>b) Additional surveys should be conducted to confirm the presence of any Barn Swallow nests on all buildings in the Project Area prior to commencement of construction.</li> <li>c) If Barn Swallow nests are located, contact the SK MOE for regulatory advice on the appropriate actions given the specific situation.</li> <li>d) The Proponent should monitor all barn swallow nests</li> </ul>	<p>measures to the EIS (Section 9.4.5). If Barn Swallow nests should be encountered, any subsequent activities would be conducted in accordance with the 2022 Migratory Birds Regulations. The habitat-based approach for the assessment supports the use of surrogates that are known to utilize the same habitat types. Habitat loss and alteration were assessed for the Key Indicator species included in this Valued Component. A conservative approach of identifying available habitat for these species was chosen to include habitat for those species not directly assessed (i.e., Barn Swallow through Common Nighthawk habitat).</p> <p>Subsequent to filing the draft EIS, Denison has developed a new Species at Risk appendix to Section 9 which will be included in the final EIS and has been included in the response to YNLR (a new SAR appendix (new Appendix 9-D) will be added to Section 9 of the final EIS. It has been included here as Attachment IR-131. This new EIS appendix lists all SAR species potentially occurring in the Project study areas, with links to applicable and appropriate mitigation measures described in the draft EIS. The new appendix also includes a summary of the life history requirements, the expected Project effects, proposed mitigation measures, and anticipated residual effects on barn swallow.</p>	

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			<p>found within the Project Area to confirm their continued usage throughout the lifecycle of the mine. If avoidance of nests is observed near Project activities, the Proponent should adopt an adaptive management approach and provide additional nesting sites elsewhere. Specifically, the Proponent could consider installing nesting structures in suitable areas to provide alternative nesting options for Barn Swallows.</p> <p>e) Staff should be trained to identify and report barn swallows and their nests.</p> <p>f) Future monitoring programs during the life of the project must include the barn swallow.</p> <p>See Section 4.5 for additional information on this topic (p. 59-60).</p>		
62	BNDN (February 28, 2023)	9.4.3.3 Bird Species at Risk Appendix 9-B	<p>Comment #62: Incidental observations of Horned Grebe (<i>Podiceps auratus</i>) occurred during baseline studies (Appendix 9- B). This species is listed as Special Concern on SARA Schedule</p> <p>1. The Horned Grebe was not included as a Key Indicator for this Valued Component. Instead, the EIS represents this species with two other bird SAR, Yellow Rail (<i>Coturnicops noveboracensis</i>), and</p>	<p>The process and rationale for selection of VCs and establishment of KIs and associated MPs is described in Section 5.3 in Section 5. Raptors, Migratory Breeding Birds, and Bird Species at Risk VCs were selected based on their likelihood of interaction with the Project, as well as their contributing roles to biodiversity and ecosystem function. While Horned Grebe was not included as a avian SAR in the draft EIS, the EIS identified Yellow Rail and Rusty Blackbird as a surrogate species. To focus the effects assessment on key species, it was decided to use the provincially listed Yellow Rail (and Rusty Blackbird) as surrogates for Horned Grebe. Horned Grebe use similar wetland habitat types for nesting, foraging and protective</p>	<p><b>Not Addressed</b></p> <p>The Horned Grebe and Yellow Rail exhibit some similar yet distinct habitat characteristics. While both species rely on wetlands with emergent vegetation, their specific habitat requirements differ significantly.</p> <p>The Horned Grebe is dependent on aquatic habitats year-round, requiring deeper wetlands with open water. It nests along the margins of ponds and marshes, anchoring its floating nest to emergent vegetation</p>



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			<p>Rusty Blackbird (<i>Euphagus carolinus</i>). The Horned Grebe uses distinct habitat from these other species. Therefore, the Horned Grebe should be its own key indicator because it will have different levels of habitat alteration/loss and levels of mortality.</p> <p>Request/recommendation:</p> <p>a) BNDN requests that the Horned Grebe is included as its own Key Indicator for the VC Bird SAR within the EIS.</p> <p>b) b. Future monitoring programs during the life of the Project must include the Horned Grebe.</p> <p>See Section 4.5 for additional information on this topic (p. 59-60).</p>	<p>cover as Yellow Rail. The habitat-based approach for the assessment supports the use of surrogates that are known to utilize the same habitat types. Habitat loss and alteration were assessed for the Key Indicator species included in this Valued Component. A conservative approach of identifying available habitat for these species was chosen to include habitat for those species not directly assessed (i.e., Horned Grebe through Yellow Rail and Rusty Blackbird habitat). As such, potential effects on these habitat types were assessed appropriately in the draft EIS.</p> <p>Subsequent to filing the draft EIS, Denison has developed a new Species at Risk appendix to Section 9 which will be included in the final EIS and has been included in the response to YNLR (a new SAR appendix (new Appendix 9-D) will be added to Section 9 of the final EIS. It has been included here as Attachment IR-131. This new EIS appendix lists all SAR species potentially occurring in the Project study areas, with links to applicable and appropriate mitigation measures described in the draft EIS. The new appendix also includes a summary of the life history requirements, the expected Project effects, proposed mitigation measures, and anticipated residual effects on Horned Grebe.</p> <p>As the Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, Denison has committed to collaborating with English River First Nation and Kineepik Métis Local on a monitoring regime, suited to each of their interests and needs. As part of these programs, Denison and the Indigenous community of ERFN and KML will be sharing information in an agreed-upon fashion. It is expected that the data collected through such monitoring regimes as described above would also be relevant to other Indigenous nations who may have interest in the Project.</p>	<p>(Kuczynski et al., 2012). In contrast, the Yellow Rail prefers shallowly flooded wetlands dominated by dense grasses or sedges. These areas typically have minimal open water and provide the thick ground cover necessary for concealment (Austin &amp; Buhl, 2013).</p> <p>Given these ecological differences, the Horned Grebe should be assessed as its own Key Indicator within the EIS to ensure that its specific habitat needs and potential project-related effects are properly accounted for. Additionally, future monitoring programs must include the Horned Grebe to adequately assess its population trends and response to development activities.</p> <p>Kuczynski, E. C., Paszkowski, C. A., &amp; Gingras, B. A. (2012). <i>Horned grebe habitat use of constructed wetlands in Alberta, Canada. The Journal of Wildlife Management</i>, 76(8), 1694–1702. doi:10.1002/jwmg.421</p> <p>Austin, J. E., &amp; Buhl, D. A. (2013). <i>Relating Yellow Rail (<i>Coturnicops noveboracensis</i>) occupancy to habitat and landscape features in the context of fire. Waterbirds</i>, 36(2), 199-213. <a href="https://doi.org/10.1675/063.036.0209">https://doi.org/10.1675/063.036.0209</a></p>

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63	BNDN (February 28, 2023)	9.4.3.3 Bird Species at Risk	<p>Comment #63: The Bank Swallow (<i>Riparia riparia</i>), a bird SAR may be present within the terrestrial RSA. This species was not included in the EIS as a key indicator for bird SAR. This species is listed as Threatened on SARA Schedule 1.</p> <p>The breeding range of the Bank Swallow (<i>Riparia riparia</i>) overlaps with the terrestrial RSA. Bank swallows breed in varying natural and artificial habitat with sand-silt substrates including vertical banks, riverbanks, bluffs, stockpiles, aggregate pits, and roadcuts (COSEWIC 2013). Suitable habitat may be present because soil surface textures across the RSA are predominantly sand textured (sand, loam sand/sandy loam and silty sand). The creation of soil stockpiles during construction may create suitable breeding habitat for this species.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>a) BNDN requests a justification for excluding the Bank Swallow from the EIS.</li> <li>b) If a valid justification does not exist, BNDN requests this species be added as a Key Indicator for bird SAR unless it can be proven not present in the RSA.</li> <li>c) All soil stockpiles should be monitored for Bank Swallow</li> </ul>	<p>The process and rationale for selection of VCs and establishment of KIs and associated MPs is described in Section 5.3 in Section 5. Raptors, Migratory Breeding Birds, and Bird Species at Risk VCs were selected based on their likelihood of interaction with the Project, as well as their contributing roles to biodiversity and ecosystem function. Subsequent to filing the draft EIS, Denison has developed a new Species at Risk appendix to Section 9 which will be included in the final EIS and has been included in the response to YNLR (a new SAR appendix (new Appendix 9-D) will be added to Section 9 of the final EIS. It has been included here as Attachment IR-131. This new EIS appendix lists all SAR species potentially occurring in the Project study areas, with links to applicable and appropriate mitigation measures described in the draft EIS. The new appendix also includes a summary of the life history requirements, the expected Project effects, proposed mitigation measures, and anticipated residual effects on bank swallow.</p>	<p><b>Provisionally Addressed</b></p> <p>Mitigation measures in Appendix 9-D should include monitoring of potential nesting sites, particularly soil stockpiles, before disturbance. If active nests are found, appropriate avoidance measures should be implemented, and consultation with Saskatchewan Ministry of Environment (SK MOE) should be required to determine regulatory actions.</p>

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			<p>nesting activity before the stockpiles are disturbed when needed for site reclamation.</p> <p>d) If Bank Swallow nests are located, contact the SK MOE for regulatory advice on the appropriate actions given the specific situation.</p> <p>See Section 4.5 for additional information on this topic (p. 59-60).</p>		
64	BNDN (February 28, 2023)	9.4.3.3.2 Information from Indigenous Knowledge, Local Knowledge, and Engagement	<p>Comment #64: The EIS states that knowledge providers reported that multiple Whooping Cranes (<i>Grus americana</i>) have been observed along the Wheeler River, Moore River, and along the Cree River (outside of the terrestrial RSA) (19-LK-ERFNTrip- 134.169) (19-LK-ERFNTrip-134.170). Whooping Cranes are listed as Endangered on SARA Schedule 1. The EIS does not include this species as a key indicator for SAR birds, nor does it include an explanation why this species was omitted despite being reported by a knowledge provider from English River First Nation.</p> <p>Request/recommendation:</p> <p>a) BNDN requests an explanation for excluding this species despite being reported by a Trapper from English River First Nation. If a valid justification does not exist, the</p>	<p>The process and rationale for selection of VCs and establishment of KIs and associated MPs is described in Section 5.3 in Section 5. Raptors, Migratory Breeding Birds, and Bird Species at Risk VCs were selected based on their likelihood of interaction with the Project, as well as their contributing roles to biodiversity and ecosystem function. The local trapper's observation of Whooping Crane was outside of the avian RSA. The rationale for the selection of the SAR Key Indicators was provided in draft EIS Section 9.4.1. For these reasons, Whooping Crane was not included as a SAR Key Indicator in the draft EIS. For further reference as noted above subsequent to filing the draft EIS, Denison has developed a new Species at Risk appendix to Section 9 which will be included in the final EIS and has been included in the response to YNLR (a new SAR appendix (new Appendix 9-D) will be added to Section 9 of the final EIS. It has been included here as Attachment IR-131. This new EIS appendix lists all SAR species potentially occurring in the Project study areas, with links to applicable and appropriate mitigation measures described in the draft EIS. The new appendix also includes a summary of the life history requirements, the expected Project effects, proposed mitigation measures, and anticipated residual effects on bank swallow.</p>	<p><b>Provisionally Addressed</b></p> <p>The proponent should confirm whether the reference to Bank Swallow was a typo and clarify that the response is intended to address Whooping Crane. The response refers to residual effects, mitigation measures, and project effects for Bank Swallow instead of Whooping Crane, which does not address the original comment</p>

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			<p>species Whooping Crane (<i>Grus americana</i>), should be included as a key indicator for SAR birds.</p> <p>b) Future monitoring programs during the life of the Project must include surveys for the Whooping Crane.</p> <p>See Section 4.5 for additional information on this topic (p. 59-60).</p>	As the Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, Denison has committed to collaborating with English River First Nation and Kineepik Métis Local on a monitoring regime, suited to each of their interests and needs. As part of these programs, Denison and the Indigenous community of ERFN and KML will be sharing information in an agreed-upon fashion. It is expected that the data collected through such monitoring regimes as described above would also be relevant to other Indigenous nations who may have interest in the Project.	
65	BNDN (February 28, 2023)	9.4.3.3.3 Baseline Studies	<p>Comment #65: Short-eared Owls (<i>Asio flammeus</i>) were not observed during the baseline surveys (Appendix 9-B). This is likely because targeted surveys for this species were not conducted. The detection probability of Short-eared Owls is very low at sunrise when the breeding songbird point count surveys were conducted. Short-eared Owls are most detectable from one hour before sunset to half an hour after sunset.</p> <p>Request/recommendation:</p> <p>a) BNDN requests that short-eared Owls continue to be assumed present within suitable habitat, unless proven otherwise by a qualified biologist using the Short-Eared Owl Survey Protocol (Saskatchewan Ministry of Environment 2015).</p> <p>b) Future monitoring programs should utilize the protocol</p>	The process and rationale for selection of VCs and establishment of KIs and associated MPs is described in Section 5.3 in Section 5. Raptors, Migratory Breeding Birds, and Bird Species at Risk VCs were selected based on their likelihood of interaction with the Project, as well as their contributing roles to biodiversity and ecosystem function. Short-eared Owl were included as a KI of the Bird SAR VC in the EIS. A review of life history requirements and discussion on effects assessment are included in the EIS (Section 9.3). In the EIS, Short-eared Owl were assumed to be present and breeding in the Project study areas. As described in the EIS, pre-construction surveys will be conducted prior to the commencement of any vegetation clearing or soil disturbance. Avian species will also be routinely monitored throughout the life of the Project. Results from the surveys and monitoring activities are expected to inform the adaptive management process to update Project design and identify the need for additional mitigation measures, if required.	Addressed.

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			<p>developed by the Saskatchewan Ministry of Environment to better (2015) understand whether this species is present.</p> <p>See Section 4.5 for additional information on this topic (p. 59-60).</p>		
66	BNDN (February 28, 2023)	9.4.3.3.3 Baseline Studies	<p>Comment #66: Yellow Rail (<i>Coturnicops noveboracensis</i>) were not observed during the baseline surveys (Appendix 9-B). This is likely because targeted surveys for this species were not conducted. The Yellow Rail is nocturnal; therefore, survey effort must take place between 23:00-3:00. Therefore, this species would not have been observed when the breeding songbird point count surveys were conducted.</p> <p>Request/recommendation:</p> <p>a) BNDN requests that Yellow Rail should continue to be assumed present within suitable habitat, unless proven otherwise by a qualified biologist using the Yellow Rail Survey Protocol (Saskatchewan Ministry of Environment 2014).</p> <p>b) Future monitoring programs should utilize the protocol developed by the Saskatchewan Ministry of Environment (2014) to better understand whether this species is present.</p>	<p>The process and rationale for selection of VCs and establishment of KIs and associated MPs is described in Section 5.3 in Section 5. Raptors, Migratory Breeding Birds, and Bird Species at Risk VCs were selected based on their likelihood of interaction with the Project, as well as their contributing roles to biodiversity and ecosystem function. Yellow Rail were included as a KI of the Bird SAR VC in the EIS. A review of life history requirements and discussion on effects assessment are included in the EIS (Section 9.3). In the EIS, Yellow Rail were assumed to be present and breeding in the Project study areas. As described in the EIS, pre-construction surveys will be conducted prior to the commencement of any vegetation clearing or soil disturbance. Avian species will also be routinely monitored throughout the life of the Project. Results from the surveys and monitoring activities are expected to inform the adaptive management process to update Project design and identify the need for additional mitigation measures, if required.</p>	<b>Addressed.</b>

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			See Section 4.5 for additional information on this topic (p. 59-60).		
67	BNDN (February 28, 2023)	Appendix 9-B	<p>Comment #67: Two bat species, Little Brown Bat (<i>Myotis lucifugus</i>) and Northern Myotis (<i>Myotis septentrionalis</i>) were detected during passive acoustic surveys in 2019 (Appendix 9- b). These species are listed as Endangered by COSEWIC and SARA schedule. Despite being present, bats were completely excluded from the EIS. Areas that will be cleared for mine development and operations could contain maternity roost trees. Based on Appendix 9-b, this habitat was not adequately evaluated through field surveys.</p> <p>Request/recommendation:</p> <p>a) BNDN requests justification for excluding bat species from the EIS despite two Endangered species confirmed present.</p> <p>b) BNDN also request the Proponent put protocols in place to identify and assess bat maternity roost trees prior to clearing and employ mitigation measures such as retaining maternity roost trees, modifying the timing of clearing, and offsetting for the destruction of habitat for endangered species.</p>	Subsequent to filing the draft EIS, Denison has developed a new Species at Risk appendix to Section 9 which will be included in the final EIS and has been included in the response to YNLR (a new SAR appendix (new Appendix 9-D) will be added to Section 9 of the final EIS. It has been included here as Attachment IR-131. This new EIS appendix lists all SAR species potentially occurring in the Project study areas, with links to applicable and appropriate mitigation measures described in the draft EIS. The new appendix also includes a summary of the life history requirements, the expected Project effects, proposed mitigation measures, and anticipated residual effects on bats.	<b>Addressed.</b>



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			See Section 4.5 for additional information on this topic (p. 59-60).		
68	BNDN (February 28, 2023)	9 Terrestrial Ecology 9.1.8 Monitoring and Follow-up 9.2.8 Monitoring and Follow-up 9.3.8 Monitoring and Follow-up 9.4.8 Monitoring and Follow-up	<p>Comment #68: Denison's proposed terrestrial ecology mitigations described are generalized and conceptual in the EIS. With the level of detail provided in the EIS, it is not possible for BNDN to comment on the adequacy or effectiveness of the proposed mitigation measures or whether proposed mitigations will meaningfully diminish Project impacts on BNDN rights and interests.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN holds invaluable indigenous knowledge related to terrestrial ecology topics including traditional and medicinal plants, ungulates, furbearers, game birds etc. within the RSA. BNDN must be meaningfully involved in the development and implementation of the various management and monitoring plans mentioned throughout Chapter 9 of the EIS to ensure that proposed impacts are sufficiently reduced. These plans include but are not limited to the wildlife monitoring plan, avian</li> </ul>	<p>As the Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, Denison has committed to collaborating with English River First Nation and Kineepik Métis Local on a monitoring regime, suited to each of their interests and needs. As part of these programs, Denison and the Indigenous community of ERFN and KML will be sharing information in an agreed-upon fashion. It is expected that the data collected through such monitoring regimes as described above would also be relevant to other Indigenous nations who may have interest in the Project. Denison does not anticipate any funding to BNDN at this time.</p> <p>BNDN will be informed throughout the monitoring program design and implementation process. Monitoring program design and implementation will be guided by the following principles: meet regulatory requirements, confirm the effectiveness of mitigation measures and predictions made in the assessment, implementing adaptive management (if/where applicable) to reduce effects during the lifetime of the Project, and will ensure that spatial boundaries are sufficiently extensive to measure EIS predictions.</p> <p>The details of monitoring and follow-up plans are being developed to support the separate process of Project licensing and permitting. The specific means by which provincial and federal authorities, and Indigenous Nations and communities will be engaged in developing the follow-up and monitoring program, including the information-sharing program, are currently under consideration with the Denison project team. It is noted that Section 4.2.1 of the draft EIS provides the variety of ways in which Denison has engaged with Interested Parties to date and it is</p>	<p><b>Not Addressed</b></p> <p>Denison has failed to acknowledge that the Project is located within Birch Narrows Dene Nation's (BNDN) Treaty 10 territory. BNDN members exercise constitutionally protected rights and actively use the lands surrounding the Project for hunting, trapping, gathering, and other traditional practices that will be directly impacted.</p> <p>BNDN holds rights and knowledge that must be meaningfully considered in the development and implementation of all terrestrial ecology-related monitoring and management plans, including the wildlife monitoring plan, avian monitoring plan, and Woodland Caribou Management Plan. Denison's current approach excludes BNDN from participating in planning processes that directly affect our rights and interests.</p>

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			<p>monitoring, and Woodland Caribou Management Plan. The role that BNDN will have in developing management and monitoring plans should be defined within a project agreement between BNDN and Denison.</p> <p>See Section 4.5 for additional information on this topic (p. 59-60).</p>	assumed it would continue to use these means and others that may be identified to fulfil its key corporate principals for developing positive relationships (see draft EIS Section 4.2).	
69	BNDN (February 28, 2023)	Section 6.0	<p>Comment #69: Denison's air dispersion model does not include any receptor locations related to BNDN traditional land and resources use (TLRU) and Indigenous Knowledge (IK) sites. BNDN members use the lands and waters in the Project area for TLRU and ceremonial purposes.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN TLRU and IK sites should be considered in Denison's air quality assessment. The geographic locations for TLRU and IK should be inputted into the air dispersion model as special receptors. This will provide site specific data for BNDN land users who use the LSA so they can effectively assess the Project's impact on land use and rights.</li> </ul>	Scoping of the air quality assessment followed a conservative approach and described where modelled concentrations returned to background levels. The air quality assessment included human receptors in the Project Area and Local Study Area (refer to draft EIS, Figure 6.1-3). These receptor locations are consistent with what was presented in the ERA (Section 10.1 and Appendix 10-A). See response to BNDN comment #1 for further details.	<p><b>Not Addressed</b></p> <p>The response does not adequately address BNDN's concern that no BNDN Indigenous Knowledge or land use locations were included in the air dispersion model as special receptors.</p>

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			See Section 4.6 for additional information on this topic (p. 67-71).		
70	BNDN (February 28, 2023)	Section 6.0	<p>Comment #70: Denison states in the EIS "the Cameco McArthur River Operation and Key Lake sites are currently in Care and Maintenance mode; therefore, there is currently no truck traffic between the sites on Highway 914. When these sites are to become operational again, there is potential for a cumulative effect at sensitive locations near the highway." On November 28th, 2022, operations resumed at Cameco's McArthur River Uranium Mine and Key Lake Mill.</p> <p>Denison did not model Cameco related air emissions in their air dispersion model. The EIS model does not account for any of Cameco's air emissions from the mill, mine, and associated truck traffic between sites. Without this data included in the model, the EIS does not adequately account for the cumulative effects of Cameco's McArthur River Mine and Key Lake Mill on the atmospheric environment.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>Denison must redo air dispersion modeling to account for the Cameco</li> </ul>	<p>Please refer to Section 6.1.3.2 and 6.1.7. The regional SK MOE data presented in Table 6.1-12 were conservatively used to represent background concentrations of TSP, PM10, PM2.5, CO, SO2, and NO2 for the Wheeler River Project air quality assessment. While traffic associated with Cameco Operations was not modelled, conservative regional background concentrations from the Saskatchewan Air Quality Modelling Guideline (SK MOE 2012a) and the La Loche monitoring station were used for particulate matter, NO2, SO2, and CO (see Section 6.1.3.2.5 and Appendix 6-A). The La Loche monitoring station is located near anthropogenic sources, while the Project is in a remote area removed from anthropogenic sources. Accordingly, emissions to air from traffic associated with Cameco's operations are captured by the regional background concentrations used in the air dispersion model and are considered in the assessment of Project-related effects discussed in Section 6.1.4. Model predictions of COPC concentrations and depositions were added to background levels and compared to the available standards summarized in Table 6.1-5 at receptors located outside the property boundary.</p> <p>To confirm the residual effects of the Project on Air Quality and demonstrate compliance with provincial ambient air quality standards, an adaptive air quality management program will be implemented. The air quality management program will contain various plans which will be finalized during permitting and licensing. The plans within the air quality management program will incorporate monitoring requirements directed by provincial and federal regulators and by Indigenous groups and other Interested Parties as requested.</p>	<b>Addressed.</b>

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			<p>McArthur River Uranium Mine and Key Lake Mill which have resumed operations since the EIS was released. Without this data included in the model the EIS does not accurately capture baseline conditions or cumulative effects on the atmospheric environment.</p> <p>Fugitive dust and uranium emissions (and potentially other contaminants) have increased potential for exceedances with the resumption of Cameco's operations, as exceedances are already predicted with the Wheeler River Project alone.</p> <p>See Section 4.6 for additional information on this topic (p. 67-71).</p>		
71	BNDN (February 28, 2023)	Section 6.0	<p>Comment #71: The Project is predicted to produce exceedances for TSP of 313% over the regulatory limit. 24-hour TSP concentrations exceed the criterion 28% of the time during Construction, 21% of the time during Operations.</p> <p>These exceedance conditions do not include TSP emissions from Cameco's McArthur River Mine and Key Lake Mill which have now resumed operations. There is also the potential for wildfire smoke to further exacerbate dust emissions.</p>	<p>a) A change in a measurable parameter is not a significant effect, per the EA methodology outlined in Section 5. This threshold approach is both transparent and reasonable with the context of the assessment, though it is acknowledged that some level of change in the VC (or more precisely its measurable parameter) is deemed acceptable on condition that the change is not of a magnitude from which negative effects could accrue. Denison directs BNDN to Table 6.1-19 to 6.1-21 for the complete residual effect characterization for TSP exceedances. This includes a consideration of the residual effect related to TSP in the full context of direction, magnitude, geographic extent, duration, frequency, reversibility, context, and likelihood. In Section 10.1 of the draft EIS, the SMEs concluded that while there were</p>	<p><b>Not addressed.</b></p> <p>Denison makes no commitment to reduce potential TSP exceedances related to the Project.</p> <p>Denison does not commit to collaborating with BNDN in the design and implementation of air quality monitoring. Denison only commits to informing BNDN which is totally unacceptable. Denison does not specify how it will notify BNDN of project-related air quality exceedances.</p> <p>Denison mischaracterizes BNDN as not being part of "Indigenous Communities of Interest with reserves and residential communities</p>

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			<p>TSP exceedances represent a potential health risk for land users and workers near the Project site. Especially for at-risk groups such as elders, youth, and people with existing respiratory conditions.</p> <p>Request/recommendation:</p> <p>a) Denison must employ additional mitigation measures to reduce TSP emissions on site including enhanced dust suppression efforts.</p> <p>b) Denison must remodel TSP to include emissions from Cameco's McArthur River Mine and Key Lake Mill.</p> <p>c) Please provide information on how TSP will be monitored during the Project and how Denison will know when exceedance conditions are occurring.</p> <p>d) Please provide information on how adaptive management will be used when a TSP exceedance is discovered. Including discussion on how the Project will be managed during poor air quality events caused by wildfire smoke.</p> <p>e) Please provide information on how exceedances conditions near the Project site will be communicated to the public.</p>	<p>predicted exceedances of air quality criteria for particulate matter, they were not identified for further assessment in the HHRA—these COPCs are unlikely to be associated with a human health or environmental risk, and any exposures to people at elevated concentrations would be infrequent, short-term, and highly localized.</p> <p>b) Please refer to Section 6.1.3.2. The regional SK MOE data presented in Table 6.1-12 were conservatively used to represent background concentrations of TSP, PM10, PM2.5, CO, SO2, and NO2 for the Wheeler River Project air quality assessment. While traffic associated with Cameco Operations was not modelled, conservative regional background concentrations from the Saskatchewan Air Quality Modelling Guideline (SK MOE 2012a) and the La Loche monitoring station were used for particulate matter, NO2, SO2, and CO (see Section 6.1.3.2.5 and Appendix 6-A). The La Loche monitoring station is located near anthropogenic sources, while the Project is in a remote area removed from anthropogenic sources. Accordingly, emissions to air from traffic associated with Cameco's operations are captured by the regional background concentrations used in the air dispersion model and are considered in the assessment of Project-related effects discussed in Section 6.1.4. Model predictions of COPC concentrations and depositions were added to background levels and compared to the available standards summarized in Table 6.1-5 at receptors located outside the property boundary.</p> <p>c) and d) To confirm the residual effects of the Project on Air Quality and demonstrate compliance with provincial ambient air quality standards, an adaptive air quality management program will be implemented. The air quality management program will contain various plans which will be finalized during permitting and licensing. The plans within the air quality management program will</p>	<p>most proximal to the Project". BNDN is located closer (232 km) to the Project than Kineepik Métis Local (235 km). Further, the Project is located on BNDN's Treaty Lands (Treaty 10), whereas Kineepik Métis Local has no Treaty lands or Treaty rights. As such, BNDN must be treated as a Indigenous Community of Interest with reserves and residential communities most proximal to the Project, not as some secondary community. Denison's position of BNDN requiring consultation and accommodation that is less meaningful than KML is unacceptable and wrong.</p>

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			See Section 4.6 for additional information on this topic (p. 67-71).	<p>incorporate monitoring requirements directed by provincial and federal regulators and by Indigenous groups and other Interested Parties as requested. In terms of worker health and safety while forest fire smoke is present, Denison will consider this through the Occupational Health and Safety Program. Information on how the Project will prepare for and addresses emergencies that may affect the health and safety of persons, the environment, and the protection of property related to forest fires will be included in the Emergency Preparedness and Response Program.</p> <p>e) As the Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, Denison has committed to collaborating with English River First Nation and Kineepik Métis Local on a monitoring regime, suited to each of their interests and needs. As part of these programs, Denison and the Indigenous community of ERFN and KML will be sharing information in an agreed-upon fashion. It is expected that the data collected through such monitoring regimes as described above would also be relevant to other Indigenous nations who may have interest in the Project. Denison does not anticipate any funding to BNDN at this time. BNDN will be informed throughout the monitoring program design and implementation process. Monitoring program design and implementation will be guided by the following principles: meet regulatory requirements, confirm the effectiveness of mitigation measures and predictions made in the assessment, implementing adaptive management (if/where applicable) to reduce effects during the lifetime of the Project, and will ensure that spatial boundaries are sufficiently extensive to measure EIS predictions.</p>	
72	BNDN (February 28, 2023)	Section 6.0	Comment #72: The Project is predicted to produce exceedances for PM10 of 232% over the	a) A change in a measurable parameter is not a significant effect, per the EA methodology outlined in Section 5. This threshold approach is both transparent and reasonable	<p><b>Not Addressed.</b></p> <p>BNDN disagrees with Denison's assessment and that particulate exceedances will not</p>



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			<p>regulatory limit. 24- hour PM10 concentrations exceed the criterion 17% of the time during Construction, 12% of the time during Operations.</p> <p>These exceedance conditions do not include PM10 emissions from Cameco's McArthur River Mine and Key Lake Mill which have now resumed operations. There is also the potential for wildfire smoke to further exacerbate dust emissions.</p> <p>PM10 exceedances represent a potential health risk for land users and workers near the Project site. Especially for at-risk groups such as elders, youth, and people with existing respiratory conditions.</p> <p>Request/recommendation:</p> <p>a) Denison must employ additional mitigation measures to reduce PM10 emissions on site including enhanced dust suppression efforts.</p> <p>b) Denison must remodel PM10 to include emissions from Cameco's McArthur River Mine and Key Lake Mill.</p> <p>c) Please provide information on how PM10 will be monitored during the Project and how Denison will know when exceedance conditions are occurring.</p>	<p>with the context of the assessment, though it is acknowledged that some level of change in the VC (or more precisely its measurable parameter) is deemed acceptable on condition that the change is not of a magnitude from which negative effects could accrue. Denison directs BNDN to Table 6.1-22 and 6.1-23 for the complete residual effect characterization for PM10 exceedances. This includes a consideration of the residual effect related to PM10 in the full context of direction, magnitude, geographic extent, duration, frequency, reversibility, context, and likelihood. In Section 10.1 of the draft EIS, the SMEs concluded that while there were predicted exceedances of air quality criteria for particulate matter, they were not identified for further assessment in the HHRA—these COPCs are unlikely to be associated with a human health or environmental risk, and any exposures to people at elevated concentrations would be infrequent, short-term, and highly localized.</p> <p>b) Please refer to Section 6.1.3.2. The regional SK MOE data presented in Table 6.1-12 were conservatively used to represent background concentrations of TSP, PM10, PM2.5, CO, SO2, and NO2 for the Wheeler River Project air quality assessment. While traffic associated with Cameco Operations was not modelled, conservative regional background concentrations from the Saskatchewan Air Quality Modelling Guideline (SK MOE 2012a) and the La Loche monitoring station were used for particulate matter, NO2, SO2, and CO (see Section 6.1.3.2.5 and Appendix 6-A). The La Loche monitoring station is located near anthropogenic sources, while the Project is in a remote area removed from anthropogenic sources. Accordingly, emissions to air from traffic associated with Cameco's operations are captured by the regional background concentrations used in the air dispersion model and are considered in the assessment of Project-related effects discussed in Section 6.1.4. Model predictions of COPC</p>	<p>have an impact on human health or the environment. Regulatory standards are in place for a reason (to protect human health and the environment) and if Denison cannot meet these standards they should not be constructing or operating.</p> <p>Denison mischaracterizes BNDN as not being part of "Indigenous Communities of Interest with reserves and residential communities most proximal to the Project". BNDN is located closer (232 km) to the Project than Kineepik Métis Local (235 km). Further, the Project is located on BNDN's Treaty Lands (Treaty 10), whereas Kineepik Métis Local has no Treaty lands or Treaty rights. As such, BNDN must be treated as a Indigenous Community of Interest with reserves and residential communities most proximal to the Project, not as some secondary community. Denison's position of BNDN requiring consultation and accommodation that is less meaningful than KML is unacceptable and wrong.</p>

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			<p>d) Please provide information on how adaptive management will be used when a PM10 exceedance is discovered. Including discussion on how the Project will be managed during poor air quality events caused by wildfire smoke.</p> <p>e) Please provide information on how exceedances conditions near the Project site will be communicated to the public.</p> <p>See Section 4.6 for additional information on this topic (p. 67-71).</p>	<p>concentrations and depositions were added to background levels and compared to the available standards summarized in Table 6.1-5 at receptors located outside the property boundary.</p> <p>c) and d) To confirm the residual effects of the Project on Air Quality and demonstrate compliance with provincial ambient air quality standards, an adaptive air quality management program will be implemented. The air quality management program will contain various plans which will be finalized during permitting and licensing. The plans within the air quality management program will incorporate monitoring requirements directed by provincial and federal regulators and by Indigenous groups and other Interested Parties as requested. In terms of worker health and safety while forest fire smoke is present, Denison will consider this through the Occupational Health and Safety Program. Information on how the Project will prepare for and addresses emergencies that may affect the health and safety of persons, the environment, and the protection of property related to forest fires will be included in the Emergency Preparedness and Response Program.</p> <p>e) As the Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, Denison has committed to collaborating with English River First Nation and Kineepik Métis Local on a monitoring regime, suited to each of their interests and needs. As part of these programs, Denison and the Indigenous community of ERFN and KML will be sharing information in an agreed-upon fashion. It is expected that the data collected through such monitoring regimes as described above would also be relevant to other Indigenous nations who may have interest in the Project. Denison does not anticipate any funding to BNDN at this time. BNDN will be informed throughout the monitoring program design and</p>	

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				implementation process. Monitoring program design and implementation will be guided by the following principles: meet regulatory requirements, confirm the effectiveness of mitigation measures and predictions made in the assessment, implementing adaptive management (if/where applicable) to reduce effects during the lifetime of the Project, and will ensure that spatial boundaries are sufficiently extensive to measure EIS predictions.	
73	BNDN (February 28, 2023)	Section 6.0	<p>Comment #73: The Project is predicted to produce exceedances for uranium of 148% over of the regulatory limit.</p> <p>These exceedance conditions do not include uranium emissions from Cameco's McArthur River Mine and Key Lake Mill which have now resumed operations.</p> <p>Uranium exceedances represent a potential health risk for land users and workers near the Project site. Additionally, uranium deposition in the aquatic and terrestrial environment can cause effect pathways to humans through the food chain through the consumption of edible/medicinal plants, berries, fish, and wildlife.</p> <p>Request/recommendation:</p> <p>a) Denison must employ additional mitigation measures to reduce uranium emissions on site including enhanced scrubber systems and containment measures.</p>	<p>a) A change in a measurable parameter is not a significant effect, per the EA methodology outlined in Section 5. This threshold approach is both transparent and reasonable with the context of the assessment, though it is acknowledged that some level of change in the VC (or more precisely its measurable parameter) is deemed acceptable on condition that the change is not of a magnitude from which negative effects could accrue. Denison directs BNDN to Table 6.1-27: Air Quality – Summary of the Characteristics Ratings for Residual Effect 9 (Operation, 24-hour Uranium Exceedances) for the complete residual effect characterization. This includes a consideration of the residual effect (24-hour U exceedance during operation) in the full context of direction, magnitude, geographic extent, duration, frequency, reversibility, context, and likelihood. Further, in Section 10.1 of the draft EIS, all relevant radionuclides were assessed in the HHRA in terms of their contribution to the total radiological dose to human and ecological receptors and COPCs identified for air were radionuclides (U-238, U-234 and radon); refer to Table 10.1-7 for a summary of human health exposure pathways. The HHRA estimated dose and risk during all Project phases to the following receptors: camp worker, seasonal resident, recreational fisher/hunter, fisher/trapper. The incremental radiation dose to all human receptors during all Project phases is predicted to be below the regulatory public dose limit of 1 mSv/yr and the dose constraint of 0.3 mSv/yr during all</p>	<p><b>Not Addressed.</b></p> <p>BNDN disagrees with Denison's assessment and that uranium exceedances will not have an impact on human health or the environment. Regulatory standards are in place for a reason (to protect human health and the environment) and if Denison cannot meet these standards they should not be constructing or operating.</p> <p>Denison mischaracterizes BNDN as not being part of "Indigenous Communities of Interest with reserves and residential communities most proximal to the Project". BNDN is located closer (232 km) to the Project than Kineepik Métis Local (235 km). Further, the Project is located on BNDN's Treaty Lands (Treaty 10), whereas Kineepik Métis Local has no Treaty lands or Treaty rights. As such, BNDN must be treated as a Indigenous Community of Interest with reserves and residential communities most proximal to the Project, not as some secondary community. Denison's position of BNDN requiring consultation and accommodation that is less meaningful than KML is unacceptable and wrong.</p>

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			<p>b) Denison must remodel uranium to include emissions from Cameco's McArthur River Mine and Key Lake Mill.</p> <p>c) Please provide information on how uranium emissions will be monitored during the Project and how Denison will know when exceedance conditions are occurring.</p> <p>d) Please provide information on how adaptive management will be used when a uranium exceedance is discovered.</p> <p>e) Please provide information on how exceedance conditions near the Project site will be communicated to the public.</p> <p>See Section 4.6 for additional information on this topic (p. 67-71).</p>	<p>Project phases. Overall, since the radiation dose estimates would be below the public dose limit, no discernable health effects are anticipated due to exposure of these receptors to radioactive releases from the Project.</p> <p>b) Please refer to Section 6.1.3.2. The Key Lake data from camp high volume air samplers from 2009 to 2018 (Table 6.1-13) were selected to represent background concentrations of uranium, arsenic, and nickel for the Wheeler River Project air quality assessment. Model predictions of COPC concentrations and depositions were added to background levels and compared to ambient air quality standards and criteria.</p> <p>c) and d) To confirm the residual effects of the Project on Air Quality and demonstrate compliance with provincial ambient air quality standards, an adaptive air quality management program will be implemented. The air quality management program will contain various plans which will be finalized during permitting and licensing. The plans within the air quality management program will incorporate monitoring requirements directed by provincial and federal regulators and by Indigenous groups and other Interested Parties as requested.</p> <p>e) As the Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, Denison has committed to collaborating with English River First Nation and Kineepik Métis Local on a monitoring regime, suited to each of their interests and needs. As part of these programs, Denison and the Indigenous community of ERFN and KML will be sharing information in an agreed-upon fashion. It is expected that the data collected through such monitoring regimes as described above would also be relevant to other Indigenous nations who may have interest in the Project. Denison does not anticipate any funding to BNDN at this time. BNDN will be informed throughout the monitoring program design and</p>	

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				implementation process. Monitoring program design and implementation will be guided by the following principles: meet regulatory requirements, confirm the effectiveness of mitigation measures and predictions made in the assessment, implementing adaptive management (if/where applicable) to reduce effects during the lifetime of the Project, and will ensure that spatial boundaries are sufficiently extensive to measure EIS predictions.	
74	BNDN (February 28, 2023)	Section 6.0	<p>Comment #74: The Saskatchewan MOE Air Quality Modelling Guidelines specifies that the American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) should be used for assessments in Saskatchewan. Denison opted to use the CLAMET/CALPUFF dispersion model for the EIS.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>Please provide additional rationale for the selection of the CALPUFF model over the provincially recommended AERMOD.</li> </ul> <p>See Section 4.6 for additional information on this topic (p. 67-71).</p>	As described in Section B.1 of Appendix 6-A, staff at the Saskatchewan Ministry of Environment (Air Quality Branch) were consulted on the selection of CALPUFF and development of the CALMET meteorological data set, beginning in 2019. The CALMET consultation included an initial discussion about the general approach, and once the CALMET runs were completed, two technical memos were produced and reviewed by Ministry staff including: 1) a memo completed in March 2020 summarizing the general CALMET approach and results (e.g., wind roses, temperature data, precipitation data); and 2) a follow-up memo completed in May 2021, which answered specific questions posed by Ministry staff. Ministry staff also completed a review and provided feedback on the CALPUFF model setup in August 2021. The specific rationale for the use of CALPUFF in lieu of AERMOD as documented in the March 2020 memo was as follows: the domain size needed to generate inputs for the human health and ecological risk assessment (HHERA) is estimated to be 60 km by 60 km. The Saskatchewan Air Modelling Guide recommends CALPUFF for long-range transport (i.e., > 50 km); CALPUFF includes wet and dry removal processes and chemical transformation algorithms that are needed to generate inputs for the HHERA and the terrestrial and aquatic assessments; and the approach is consistent with other uranium mines in the area.	<b>Addressed.</b>

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75	BNDN (February 28, 2023)	Appendix 6-C Climate Baseline and Greenhouse Gas Emissions Report	<p>Comment #75: Carbon dioxide emissions related to air travel for Project personnel were not included in the GHG emissions calculations. Project related emissions from air travel would be significant source due to the remote nature of the site. The GHG emission estimate included in EIS Appendix 6-C does not provide a fulsome representation of Project related GHG emissions.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>Denison must include emissions from air travel for project personnel in the GHG emissions calculations. This will provide a more accurate representation of project-related GHG emissions.</li> </ul> <p>See Section 4.6 for additional information on this topic (p. 67-71).</p>	Assessment of upstream or Scope 3 GHGs under Environment and Climate Change Canada's Strategic Assessment of Climate Change guide are only required for projects that are likely to exceed the upstream threshold of 500 kt of CO <sub>2</sub> e per year. The upstream GHG emissions for the Project are expected to be well below this threshold (draft EIS Section 2.5) and in the range of 25 to 31 kt of CO <sub>2</sub> e.	<b>Addressed.</b>
76	BNDN (February 28, 2023)	Section 6.0	<p>Comment #76: Denison acknowledges the Project's contribution to climate change through GHG emissions but does not outline a plan to offset GHG emissions. Other mines in Canada, including the Canadian Malartic Mine in Quebec have GHG offset plans in which carbon emissions are tracked and offsetting activities are developed in collaboration with</p>	Denison anticipates being subject to ECCC's reporting requirements for emitters over 10,000 tonnes CO <sub>2</sub> e and the information is collected under section 26 of the Canadian Environmental Protection Act. In order to meet these reporting requirement, Denison will be tracking Scope 1 and 2 GHG emissions. Options to offset the Project's GHG emissions will be considered as the Project advances. In draft EIS Section 2.5 Greenhouse Gas Emissions Denison has committed to looking for opportunities to optimize energy management and	<b>Addressed.</b>



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			<p>local First Nations (Canadian Malartic, 2014).</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>Denison must develop a GHG/Carbon offsetting plan to mitigate potential impacts of the Project to climate change. Denison could work with BNDN and other local First Nations on initiatives that help to offset the Project's GHG emissions (e.g., tree planting, wetland restoration, carbon offsets). This would demonstrate a commitment to corporate social responsibility, climate stewardship and reconciliation on Denison's behalf.</li> </ul> <p>See Section 4.6 for additional information on this topic (p. 67-71).</p>	improve the energy intensity of the Project where practical.	
77	BNDN (February 28, 2023)	Section 6.0	<p>Comment #77: The Project is reliant on burning diesel for construction, supplementary power generation, mine processing activities, and mine equipment. The GHG intensive nature of the Project's construction and operation phases are a concern for BNDN and not consistent with federal or provincial directives to reduce GHGs. Cleaner technology and fuel sources are available to</p>	<p>Thank you for the comment. The EIS is a planning tool and the details of Project design including use of fuels will be evaluated by Denison as the Project advances. However, we note that in Section 2.5 Greenhouse Gas Emissions of the draft EIS that Denison will look for opportunities to optimize energy management and improve the energy intensity of the Project where practical.</p> <p>In terms of EIS scoping for the basis of effects assessments, Denison took a conservative approach to estimating combustion products use by assuming back-up diesel</p>	<b>Addressed.</b>

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			<p>reduce the Project's GHG emissions. For a project based around supplying fuel for the energy transition, a more progressive approach that utilizes Best Available Technology is required in order to reduce GHG emissions.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>Where feasible Denison must implement the use of low carbon technology and fuels in the final Project design to reduce GHG emissions. Specifically, Denison should redesign the Project to: <ul style="list-style-type: none"> <li>Replace all diesel electricity generation with LNG/CNG generators (and add in renewables where feasible) for construction phase.</li> <li>Replace all diesel powered mine equipment and vehicles with electric or LNG/CNG models.</li> <li>Use renewable energy sources for electricity generation (e.g., wind, solar) as early</li> </ul> </li> </ul>	<p>generators were running continually (worst-case scenario). This is expected to bound actual Project fuel use.</p>	

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			in the project lifecycle as possible.  See Section 4.6 for additional information on this topic (p. 67-71).		
78	BNDN (February 28, 2023)	Section 6.0	<p>Comment #78: Denison does not specify how it will monitor air contaminant concentrations during all phases of the Project. Continuous on-site ambient air monitoring for all COPCs (including particulates, metals, and radon) is the only way to truly assess the Project's impact on air quality and compliance with government standards.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>Denison must conduct continuous on-site monitoring for all contaminants of concern (including particulates, metals, and radon) in order to assure regulatory compliance and verify the accuracy of air dispersion models and EIS predictions.</li> </ul> <p>See Section 4.6 for additional information on this topic (p. 67-71).</p>	To confirm the residual effects of the Project on Air Quality and demonstrate compliance with provincial ambient air quality standards, an adaptive air quality management program will be implemented. The air quality management program will contain various plans which will be finalized during permitting and licensing. The plans within the air quality management program will incorporate monitoring requirements directed by provincial and federal regulators and by Indigenous groups and other Interested Parties as requested.	<b>Not Addressed.</b>
79	BNDN (February 28, 2023)	Section 6.0	<p>Comment #79: Denison does not specify how BNDN will be involved in air quality monitoring during</p>	As the Indigenous Communities of Interest with reserves and residential communities most proximal to the Project, Denison has committed to collaborating with English River	<p><b>Not Addressed.</b></p> <p>The response does not adequately address BNDN's concern around the lack of BNDN</p>

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			<p>construction, operations and decommissioning phases of the Project.</p> <p>Request/recommendation:</p> <p>a) BNDN requests the implementation of robust and long-term environmental monitoring to verify protection of the environment, including community-led monitoring during Construction and Operations of the Project.</p> <p>b) Denison must develop specific roles and responsibilities to BNDN members in relation to air quality monitoring and site wide environmental monitoring. This should include, at a minimum, one environmental monitor position for BNDN. This would provide increased transparency and confidence to Denison's environmental management practices and performance.</p> <p>See Section 4.6 for additional information on this topic (p. 67-71).</p>	<p>First Nation and Kineepik Métis Local on a monitoring regime, suited to each of their interests and needs. As part of these programs, Denison and the Indigenous community of ERFN and KML will be sharing information in an agreed-upon fashion. It is expected that the data collected through such monitoring regimes as described above would also be relevant to other Indigenous nations who may have interest in the Project. Denison does not anticipate any funding to BNDN at this time.</p> <p>BNDN will be informed throughout the monitoring program design and implementation process. Monitoring program design and implementation will be guided by the following principles: programs will meet regulatory requirements, programs will confirm the effectiveness of mitigation measures and predictions made in the assessment, programs will be implemented in an adaptive management framework (if/where applicable) to reduce effects during the lifetime of the Project, and programs will have spatial boundaries that are sufficiently extensive to measure EIS predictions.</p> <p>The details of monitoring and follow-up plans are being developed to support the separate process of Project licensing and permitting. The specific means by which provincial and federal authorities, and Indigenous Nations and communities will be engaged in developing the follow-up and monitoring program, including the information-sharing program, are currently under consideration with the Denison project team. It is noted that Section 4.2.1 of the draft EIS provides the variety of ways in which Denison has engaged with Interested Parties to date and it is assumed it would continue to use these means and others that may be identified to fulfil its key corporate principals for developing positive relationships (see draft EIS Section 4.2).</p>	<p>involvement in the design and implementation Denison's air quality monitoring program. Denison does not specify how BNDN will be involved in air quality monitoring during construction, operations and decommissioning phases of the Project. Nor does Denison make any commitments for BNDN involvement in Denison's environmental monitoring programs including air quality monitoring.</p>

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80	BNDN (February 28, 2023)	Section 2.2.2.2.2 Uranium Bearing Solution Holding Area	<p>Comment #80: The Proponent states that the UBS holding area will have leak detection (Figure 2.2-18). The system is shown as a pipe running under the pond.</p> <p>Request/recommendation:</p> <p>a) BNDN requests more details on the leak detection system used for all ponds shown in Figure 2.2-18.</p> <p>b) BNDN requests that Denison respond to all the following questions in writing:</p> <ul style="list-style-type: none"> <li>Is the pipe connected to an automated sensing system?</li> <li>If not, how frequently is the system monitored?</li> <li>What chemical or physical indicator(s) are used to detect a leak?</li> <li>What are the detection limits/thresholds for each indicator?</li> <li>What is the precision of each indicator?</li> <li>Who is notified, and how quickly would a response be mobilized?</li> </ul> <p>See Section 4.7 for additional information on this topic (p. 77).</p>	It is important to note that Denison is completing a sequential EA and licensing process for the Project (see draft EIS Section 1). Denison considers the EA to be a planning and decision-making tool that assesses the potential effects of the Project in a careful and precautionary manner and integrates results of engagement with Indigenous nations and communities. The details requested by BNDN will be developed to support licensing and will be included in Management System programs / plans including for example the Groundwater Monitoring Plan and the Emergency Response and Preparedness Plan.	<p><b>Not Addressed.</b></p> <p>If Denison intends to defer the answering of these important questions to the licensing phase of the Project, BNDN requires a commitment to negotiate a Project Agreement to formalize a process for engagement with BNDN and responding to BNDN concerns on these matters. BNDN requires this commitment for this concern to be addressed.</p>
81	BNDN (February 28, 2023)	Section 2.2.2.2.2 Uranium Bearing	<p>Comment #81: The Proponent states that the UBS holding area will have leak detection (Figure 2.2-</p>	It is important to note that Denison is completing a sequential EA and licensing process for the Project (see draft EIS Section 1). Denison considers the EA to be a planning and decision-making tool that assesses the	<p><b>Not addressed.</b></p> <p>BNDN sees it as a reasonable and necessary precaution to provide additional information on this matter. If Denison wishes to defer</p>

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		Solution Holding Area Section 2.2.4.5 Process Precipitate Pond	<p>18). The system is shown as a pipe running under the pond.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN requests to know what specific containment/restoration methods will be used in the event that a leak is detected, and how quickly they would be implemented. This applies to both the UBS holding area and process precipitate pond.</li> </ul> <p>See Section 4.7 for additional information on this topic (p. 77).</p>	potential effects of the Project in a careful and precautionary manner and integrates results of engagement with Indigenous nations and communities. The details requested by BNDN will be developed to support licensing and will be included in the Project's future Management System documents including for example the Groundwater Monitoring Plan and the Emergency Response and Preparedness Plan.	this to the licensing phase our Nation requires a commitment to negotiate a Project Agreement with our Nation now to have certainty that this will be addressed in a manner that mitigates our Nations concerns.
82	BNDN (February 28, 2023)	Section 2.2.2.2.2 Uranium Bearing Solution Holding Area	<p>Comment #82: The Proponent states that the UBS holding area will be designed as a pond contained by a double composite liner system (Figure 2.2- 18), and that options to use tanks instead of holding area will be evaluated as engineering advances.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN requests that Denison undertake a risk assessment for the design of the UBS holding area. BNDN recommends the safer, less environmentally risky option be selected and that BNDN can review and provide input into the decision that Denison makes.</li> </ul>	Please see Denison's response to BNDN comment #33.	<p><b>Not addressed.</b></p> <p>BNDN sees it as a reasonable and necessary precaution to undertake a risk assessment for this particularly important and risky aspect of the overall operation. BNDN reiterates the request and reminds Denison that this concern would be best addressed through a formalized process for engagement defined in a project agreement between BNDN and Denison for the Wheeler River Project.</p>



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			See Section 4.7 for additional information on this topic (p. 77).		
83	BNDN (February 28, 2023)	Section 2.2.1.4.5	<p>Comment #83: The Proponent states that the wellfield pipelines will be designed to have secondary containment or catchment and have leak detection systems in place at key locations.</p> <p>BNDN requests more details on the leak detection system used for wellfield lines. Specifically, BNDN requests that Denison respond to the following questions:</p> <ul style="list-style-type: none"> <li>• Is an automated sensing system used?</li> <li>• Will automated controls shut off pressure in the event of a significant leak?</li> <li>• If no automation is used, how frequently is the system monitored?</li> <li>• What chemical or physical indicator(s) are used to detect a leak?</li> <li>• What are the detection limits/thresholds for each indicator?</li> <li>• What is the precision of each indicator?</li> <li>• Who is notified, and how quickly would a response be mobilized?</li> </ul> <p>See Section 4.7 for additional information on this topic (p. 77).</p>	<p>Wellfield piping system will transport the mining solution to and from the processing plant. The flow rates and pressures of the individual well lines will be monitored in the pumphouses. This data will be transmitted to the processing plant for remote monitoring through a master control system. Through the master control system, operators will be capable of controlling pumphouse production lines remotely.</p> <p>The specific details requested by BNDN in this comment are not available at this time and will be developed as part of detailed design to support Project licensing and permitting. Denison considers the EA to be a planning and decision-making tool that assesses the potential effects of the Project in a careful and precautionary manner and integrates results of engagement with Indigenous nations and communities. Denison views the EIS as an important planning tool that will be used to support future activities and represents one stage in the rigorous overall approvals process for a uranium mining facility in Canada. Denison completed feasibility designs for the Project in 2023. The engineering design of the wellfield pipelines including control measures to monitor and respond to leaks will be included in the detailed design information provided to the CNSC during Project licensing.</p>	<p><b>Not Addressed.</b></p> <p>If Denison intends to defer the answering of these important questions to the licensing phase of the Project, BNDN requires a commitment to negotiate a Project Agreement to formalize a process for engagement with BNDN and responding to BNDN concerns on these matters. BNDN requires this commitment for this concern to be addressed.</p>

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84	BNDN (February 28, 2023)	Section 2.2.1.4.5 Primary Containment of Mining Solution – Wells	<p>Comment #84: The Proponent states that the well designs and operational monitoring of the wellfield will mitigate accidental release of mining solution or UBS in the sandstone above the mining area.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN requests to know how Denison will monitor the integrity of wells once in production. Will tests be conducted at regular intervals?</li> </ul> <p>See Section 4.7 for additional information on this topic (p. 77).</p>	<p>The well designs and operational monitoring of the wellfield will mitigate accidental release of mining solution or UBS in the sandstone above the mining area. Each well will have double containment: mining solution will travel inside an inner casing with the outer casing acting as secondary containment for the mining fluids. Wells will be continually monitored for operational parameters such as injection pressures, injection flow rates, and recovery flow rates. This data will be transmitted to the processing plant for remote monitoring through a master control system. Through the master control system, operators will be capable of controlling pumphouse production lines remotely. Wellfield monitoring will facilitate detection of any issues with the injection and recovery wells.</p> <p>A network of monitoring wells installed within the freeze wall area will be equipped with pressure instrumentation for the determination of the vertical strain/stresses placed on the formation to do mining zone space creation. This monitoring network is designed to detect if these strains may be approaching their acceptable levels prior to failure. The injection and recovery wells will also be equipped with devices for pressure and temperature that can detect a breach in the well casing if one were to occur. As a preventative measure, annual mechanical integrity testing is conducted on the wells to ensure their containment and compliancy.</p> <p>Active monitoring will allow for operational shutdown if a scenario is approaching a failure mode.</p>	<b>Addressed.</b>
85	BNDN (February 28, 2023)	Section 2.2.1.4.5 Fuel Storage and Dispensing Facility	<p>Comment #85: The Proponent states that fuels will be stored in approved, above-ground, 25,000 L double-walled storage tank(s) equipped with secondary containment in accordance with</p>	<p>Details on when Denison will construct the permanent fuel storage facility or precisely where temporary fuel storage tanks will be located are not available at this phase of the Project and these details are not required to support EIS review. However, at the EIS stage it is important to note that Denison is committed to construction and operating all fuel storage and distribution infrastructure in</p>	<b>Addressed.</b>

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			<p>provincial regulations and standards.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN requests to confirm when the permanent fuel storage facility will be constructed. If temporary fuel storage for construction is required, indicate how much, how it will be stored and dispensed, and show on a sketch where it will be located. Construction fuel requirements for site development may be significant.</li> </ul> <p>See Section 4.7 for additional information on this topic (p. 77).</p>	<p>accordance with applicable legislative requirements. Fuels will be stored in approved, above-ground, double-walled storage tank(s) equipped with secondary containment in accordance with provincial regulations and standards. In Saskatchewan, the permitting process for hazardous substances including above ground storage tanks for diesel, propane, gas, and jet fuel are governed by The Hazardous Substances and Waste Dangerous Goods Regulations; Environmental Code Chapter E-10.2 Reg 3 (HSWDG). Denison will need to apply for an Approval to Construct, Install, Alter and Expand a Storage Facility and Store Hazardous Substances and/or Waste Dangerous Goods and secure an approval from the Ministry of Environment pursuant to The Environmental Management and Protection Act, 2010, and The Hazardous Substances and Waste Dangerous Goods Regulations. Denison will have to adhere to the Terms and Conditions of the approval, complete regular inspections of the facilities, and maintain an Emergency Response Contingency Plan. The Ministry of Environment staff also conduct regular inspections to ensure the conditions of the approval are being followed.</p>	
86	BNDN (February 28, 2023)	Section 2.2.4.5 Process Precipitate Pond	<p>Comment #86: The Proponent states that process precipitates may be stored in totes inside the process precipitate pond.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN requests details on the procedures for placement and handling of precipitate totes within the pond. Care should be taken to ensure that equipment and totes do not compromise the pond lining. Totes should be sealed and</li> </ul>	<p>The precipitate pond is proposed as a lined area with berms (as shown in Section 2, Figure 2.2-18) and may be more clearly described as being a lined pad. As such, process precipitates can be placed into totes, which can be placed on the lined area ('pond') for containment during storage. Details on the plans for precipitate management, placement and handling will be developed to support Project licensing and permitting. Denison agrees the integrity of the liner and totes are important considerations which will be factors in the plans. We also refer BNDN to the following draft EIS sections and comments responses:</p>	<b>Addressed.</b>

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			<p>transport of totes from the plant to the pond should be carefully planned to minimize the risk of a spill, and in the event of a spill ensure that runoff is captured on the site.</p> <p>See Section 4.7 for additional information on this topic (p. 77).</p>	<ul style="list-style-type: none"> <li>Waste Management: Waste management is described in Section 2.2.4 of the draft EIS and includes discussion of all waste types that will be generated by Project-related activities. The following is noted in Section 2.2.4 for reference, "Conventional waste, radiologically contaminated waste, and hazardous waste will be managed at the Project. Denison is committed to conducting stringent waste characterization throughout the life of the Project. This includes physical, radiological, and chemical characterization to maintain accurate waste inventories and determine how wastes will be dispositioned through either re-use, recycling, temporary storage, or permanent disposal (on or off site). This includes clearance of material that meets unconditional release requirements and can be safely removed from site. A waste management program will be developed for the Project to support licensing and permitting. The waste management program and associated plans developed to support licensing will be based on the 4 R's: Reduce, Reuse, Recycle, and Recover, and will detail how each type of waste generated on site will be managed. Resources used to develop the waste management program will include, but are not limited to, the CNSC's REGDOC-2.11 series, related Canadian Standards Association (CSA) standards, and the Hazardous Substances and Waste Dangerous Goods Regulations (Government of Saskatchewan 2000)."</li> <li>Water Management: Water management is described in Section 2.2.3 of the draft EIS and includes Denison's commitment to capturing any contact water. Clean, non-contact runoff will be diverted around Project components where possible. Contact water, including, for example, runoff from the wellfield and around the processing plant, will be</li> </ul>	

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				<p>collected in various ponds and eventually routed through the IWWTP for treatment prior to release to Whitefish Lake. Refer to Figure 2.2-17 for runoff collection assumptions.</p> <ul style="list-style-type: none"> <li>Emergency Preparedness and Response Program: Please also see Denison's response to BNDN comments 87 and 88 below for information on the Emergency Preparedness and Response Program.</li> </ul>	
87	BNDN (February 28, 2023)	Section 2.8 Project Design Features	<p>Comments #87 and 88: Denison states that they will maintain an up-to-date record of the various hazardous substances on site and will maintain Safety Data Sheets and appropriate procedures for spill management, handling, and clean up in an accessible location.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN requests a description of the safety and spill response training programs that employees will undergo. What is the duration of each training program and how often will retraining be conducted?</li> <li>BNDN requests to know what resources will be kept on site for management and clean-up of spills, for example spill kits, absorbents, neutralization agents, vacuum trucks, PPE, hand tools, etc.</li> </ul> <p>See Section 4.7 for additional information on this topic (p. 77).</p>	<p>The details requested related to the Emergency Preparedness and Response Program are being developed to support licensing efforts. The EIS is a planning tool to provide an assessment of the potential Project effects on the human and biophysical environment; at the EIS stage a detailed Management System is not required.</p> <p>A brief description of the Emergency Preparedness and Response Plan is provided in the draft EIS, Section 2.9.1.3.5: and included below for reference. Please also refer to draft EIS, Section 14 Accidents and Malfunctions for an assessment of the potential accidents and malfunctions that could occur in association with the Project and a description of the potential effects on human health or the biophysical environment, considering environmental design features and mitigation measures that would be implemented to reduce such effects.</p> <p>2.9.1.3.5 Emergency Preparedness and Response Program</p> <p>The Emergency Preparedness and Response Program would identify how the Project will prepare for and addresses emergencies that may affect the health and safety of persons, the environment, and the protection of property. The objectives of the program would include the following:</p> <ul style="list-style-type: none"> <li>identification of accidents and emergencies and the actions and responsibilities in the event of an emergency;</li> </ul>	<b>Addressed.</b>

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				<ul style="list-style-type: none"> <li>• Project requirements for emergency response equipment and personnel;</li> <li>• internal incident command structure to effectively manage complex, lengthy, and large-scale emergencies;</li> <li>• required communications with external emergency services, statutory bodies, and public, Indigenous groups, and regulatory agencies;</li> <li>• development of appropriate emergency procedures; and</li> <li>• assurance of availability of vital information during an emergency.</li> </ul> <p>Emergency Preparedness and Response Program would be developed consistent with guidance provided by CNSC in REGDOC-2.10.1, Nuclear Emergency Preparedness and Response.</p>	
88	BNDN (February 28, 2023)	Section 2.2.2.2.4 Yellowcake drying and packaging	Comment #89: The Proponent describes various measures used to mitigate yellowcake dust emissions: the yellowcake drying and packaging area will be outfitted with hygiene systems to capture dust generated during the material handling of the yellowcake product and sent to either the dryer or calciner venturi scrubbers. All equipment located after the dewatering of the yellowcake will be selected to provide minimal dust generation and outfitted with dust collection systems where required. The ventilation system in this area of the processing plant will also be adequately designed to provide safety of workers and control fugitive dust emissions.	Should dust collection systems in the yellowcake drying and packaging area fail and generate a hazard for the workers, the plant will be shut down until repairs are completed. A redundant hygiene system is not economical to implement. Hygiene scrubbers are typically very reliable and can be repaired in short time frames.	<b>Addressed.</b>



## Denison's Responses to Comments from BNDN on the Wheeler River Project draft EIS

Denison Response – November 29, 2023

Ref. No.	Source	Reference to EIS, appendix, or supporting documentation	Comment Summary (all original submissions can be found on Canadian Impact Assessment Registry reference: 80171)	Denison Response	
			<p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN recommends redundant hygiene systems be installed (n+1 units) to ensure continuity of air filtration in the event of equipment failure.</li> </ul> <p>See Section 4.7 for additional information on this topic (p. 77).</p>		
89	BNDN (February 28, 2023)	Draft EIS 9.3.5.1 Project Design Measures	<p>Comment #90: The Proponent states that all contaminated areas will be fenced to avoid contact with workers and wildlife. Fences will be monitored and maintained.</p> <p>Request/recommendation:</p> <ul style="list-style-type: none"> <li>BNDN requests to know the size and type of fence considered for each project area.</li> <li>Confirm if the wellfields will be fenced. Show all fences on a site layout drawing like Figure 2.2-1.</li> </ul> <p>See Section 4.7 for additional information on this topic (p. 77).</p>	Access to the property will be controlled by both a north and south security gate. In the draft EIS, Denison has committed to fencing the domestic landfill (Section 2.2.4.3.1) and having a fenced storage area near the operations centre. Details on the size and type of fencing are not defined at this stage of the Project, but will meet the criteria outlined in the EIS. The wellfield is not proposed to be fenced. For the wildlife-specific mitigation measures, refer to Section 9.3.5.2.5 Wildlife Deterrence and Prevention of Wildlife Entrapment and Section 9.3.5.2.8 Waste and Hazardous Materials Management.	<b>Addressed.</b>

June 3, 2025

Métis Nation – Saskatchewan  
310-20<sup>th</sup> Street East  
Saskatoon, SK S7K 0A7

Attention: Brent Laroque, Director of Environment

**Re: Denison MN-S Joint Working Group Meeting (April 30, 2025)**

Dear Mr. Laroque,

We are writing to express our thanks to the Métis Nation – Saskatchewan (the “**MN-S**”) for attending a joint working group meeting with Denison Mines Corp. (“**Denison**”) on April 30, 2025 (the “**JWG Meeting**”) at the MN-S office in Saskatoon. We are grateful for the opportunity to continue our discussions with the MN-S regarding its questions related to the potential impacts of the Wheeler River Project (the “**Project**”) on Métis rights and title, as further expressed in the MN-S’ March 31, 2025 letter to the Canadian Nuclear Safety Commission.

This letter summarizes the key points of our discussion at the JWG Meeting and includes our thoughts on how such matters can be appropriately addressed in the near future. We also provide additional information in response to certain concerns expressed by the MN-S regarding the Project. For clarity, we have attached the agenda from the JWG Meeting in Appendix A.

## **1. Concerns about Stigma, Contamination and Residual Impacts**

In the JWG Meeting, we discussed the concerns expressed by members of the Métis community regarding their perceptions of potential contamination from the Project. We understand that these include concerns related to groundwater, drinking water quality, and the disposal of radioactive waste. The MN-S also expressed that stigma from the Project’s perceived contamination and residual impacts may affect Métis citizens’ use of the Métis Homeland.

To respond to the MN-S’ concerns, we have included information relevant to these matters in addition to summarizing our discussion at the JWG Meeting.

### ***(a) Assessed potential impacts to groundwater***

Throughout the environmental assessment (“**EA**”) of the Project, Denison conducted extensive environmental and technical studies to evaluate the potential adverse impacts of the Project. These studies, which are integrated into the Project’s final Environmental Impact Statement (“**EIS**”),

demonstrate the Project can be constructed, operated, and decommissioned in a manner that is not likely to cause significant adverse effects to the surrounding biophysical or human environments.<sup>1</sup>

In support of this conclusion, and as explained at the JWG Meeting by Janna Switzer (Denison's Vice President Environment, Sustainability & Regulatory), Denison undertook numerous studies related to potential Project impacts on groundwater. In particular, Denison assessed the potential impacts of the Project on groundwater as a pathway to surface water, and the associated potential for changes in groundwater inputs to surface water to influence fish and fish habitat, sediment quality, vegetation, wildlife, human health, and Indigenous land and resource use (including Métis land and resource use).<sup>2</sup>

To evaluate how constituents of potential concern ("COPC") dissolved into groundwater may interact with the environment after remediation of groundwater in the mining area, Denison applied a rigorous numerical model of groundwater flow and chemical COPC behaviour along the groundwater flow path as a predictive tool.<sup>3</sup> As Ms. Switzer shared at the JWG Meeting, the results supported the conclusion that, with the implementation of appropriate mitigation, the potential impacts of the Project on groundwater are not expected to cause adverse residual effects.<sup>4</sup> Further, concentrations of COPCs are predicted to remain at levels that would not result in environmental risk.<sup>5</sup>

Changes to groundwater as a result of increases in constituent concentrations are predicted to be negligible to low in magnitude and limited to the local study area.<sup>6</sup> Accordingly, Denison has concluded the Project would not result in significant residual effects to groundwater.

Denison understands and respects the interests and concerns of the MN-S regarding the potential impacts of the Project on groundwater. As part of our response to these concerns, Denison is committed to providing the MN-S with the outcomes of monitoring data in respect of this area and engaging with the MN-S on such information.

***(b) Assessed potential impacts to human health as a result of surface water ingestion and use***

Denison assessed the potential impacts of the Project regarding the ingestion of surface water as part of the human assessment in the EA. The main input into the aquatic environment which could affect human health is the release of treated effluent into Whitefish Lake. To measure these

<sup>1</sup> Denison Mines Corp. "Wheeler River Project Final Environmental Impact Statement" accepted by the Canadian Nuclear Safety Commission on December 24, 2024 ("Final EIS"), p. 16-32, available [online](#).

<sup>2</sup> Final EIS, p. 7-122.

<sup>3</sup> Final EIS, p. 7-123.

<sup>4</sup> Final EIS, p. 7-123.

<sup>5</sup> Final EIS, p. 7-123.

<sup>6</sup> Final EIS, p. 7-106.

potential impacts, Denison undertook a conservative screening of predicted reasonable upper bound treated effluent concentrations against surface water quality guidelines. The screening values in the EIS are based on the most restrictive provincial or federal surface water quality guidelines (to the extent these guidelines exist for the COPCs).<sup>7</sup> Based on these and other studies, and the implementation of mitigation measures, we concluded that the Project could be constructed, operated, and decommissioned without compromising safety to human health.

Further, changes to surface water levels and flows were assessed to be well below criteria identifying a residual effect during all phases of the Project.<sup>8</sup> Interactions of the Project with surface water were highly localized to the local study area, specifically to Whitefish Lake. Project-related interactions do not extend beyond the local study area into the regional study area.<sup>9</sup>

Denison understands and respects the interests and concerns of the MN-S regarding the potential ingestion and use of surface water in and around the Project area. As part of our response to these concerns, Denison is committed to providing the MN-S with the outcomes of monitoring data in respect of this area and engaging with the MN-S on such information.

### ***(c) Disposal of radioactive waste***

The MN-S has expressed concern that the EA did not include an assessment of decommissioning plans for radioactive waste stored at the Project.

Radioactive waste that is composed of special waste (drill cuttings) and/or precipitate is expected to be sent off site for processing at an eligible licensed facility.<sup>10</sup> Other Project-related materials which are contaminated from operational activities that cannot be cleaned to pass standard radiological clearance will remain on-site in an industrial landfill or will be transported in accordance with appropriate regulations and disposed off-site at an approved facility. The industrial landfill would continue to hold such materials during and potentially following decommissioning. Denison will install a double lined pad with leak detection and collection system between the primary and secondary geosynthetic composite liners.<sup>11</sup> This design is the best available technology and can safely operate for several hundred years with the proper installation and maintenance.<sup>12</sup> Upon closure of the Project-site, the industrial landfill will be covered with an engineered impermeable liner system to minimize infiltration of precipitation into the containment

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<sup>7</sup> Final EIS, p. 10-25.

<sup>8</sup> Final EIS, p. 7-106.

<sup>9</sup> Final EIS, p. 7-106.

<sup>10</sup> Final EIS, p. 10-93.

<sup>11</sup> Final EIS, p. 2-54.

<sup>12</sup> Final EIS, p. 2-54.

system.<sup>13</sup> Performance of the containment system will be monitored through a network of groundwater monitoring wells located around the industrial landfill.<sup>14</sup>

Denison understands and respects the interests and concerns of the MN-S regarding the disposal of radioactive waste from the Project. As part of our response to these concerns, Denison is committed to providing the MN-S with the outcomes of monitoring data in respect of this area and engaging with the MN-S on such information.

***(d) Potential stigma and Métis use of land in and around the Project***

In the JWG Meeting, we discussed the MN-S' concerns regarding potential stigma from the Project and the related impacts to Métis citizens' use of lands and waters in and around the Project. We understand that the MN-S has requested funding from the Province of Saskatchewan (the "**Province**") to carry out additional studies to identify and discuss opportunities to help minimize potential stigma, such as through Project changes, Métis involvement in Project operations and monitoring, and Métis involvement in closure processes and decisions.

Denison collected information from Métis and other Indigenous peoples over the course of the EA to understand traditional and ongoing uses of areas in and around the Project. As discussed further below, the MN-S identified Whitefish Lake as an area potentially impacted by the Project and has expressed concerns related to Métis' fishing activities in the lake and the potential associated stigma therein.

The information shared with Denison during the EA and incorporated into the final EIS demonstrates there is only occasional, and no consistent, use of Whitefish Lake. Nevertheless, Denison took a conservative approach in the EA and conducted its assessment of Project-related effects to Whitefish Lake as if it was an actively-used area. Even with this approach, as Ms. Switzer explained at the JWG Meeting, Denison concluded the potential effect to fishers (if any) would be undetectable because there are no predicted Project-induced changes to the abundance and distribution of fish, or indications of potential radiological exceedances.<sup>15</sup>

Denison understands that perceptions around the quality of the resource could still change Métis behaviour.<sup>16</sup> At the JWG Meeting, Denison reaffirmed the importance of continuing to assess how the Project may affect Métis citizens' behaviour in and around the Project area, and how the perception of risk and impressions of past mining projects in the region generally impact pre-existing conceptions of the Project.

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<sup>13</sup> Final EIS, p. 2-54.

<sup>14</sup> Final EIS, p. 2-54.

<sup>15</sup> Final EIS, p. 11-59.

<sup>16</sup> Final EIS, p. 11-69.

Denison factored such potential impacts into its residual effects assessment in the EA and integrated mitigation and monitoring measures to address these concerns. The monitoring programs are ongoing and facilitate the sharing of information relevant to potential Project impacts, including qualitative and quantitative assessments. Throughout the EA, as well as in response to the MN-S' comments on the Project's draft EIS, Denison has committed to sharing this monitoring information with the MN-S for its review and for its potential distribution to Métis citizens. To this end, information from these monitoring programs will be shared with the MN-S.

At the JWG Meeting, Denison and the MN-S discussed the value in making information from these monitoring programs more accessible to MN-S citizens. Denison looks forward to collaborating with the MN-S to develop the best method to continue sharing such monitoring information.

## **2. Basement Rock Permeability**

In the JWG Meeting, we discussed the questions shared by MN-S regarding the permeability of the basement rock under the Project and whether hazardous materials will be fully contained by the frozen curtain walls. Further, the MN-S expressed that one or more Métis elders' understanding indicates basement rock may be permeable.

As Chad Sorba (Denison's Vice President Technical Services & Project Evaluation) explained during the JWG Meeting, the Project's freeze wall will be keyed into the basement rock to avoid faults, fractures, or other avenues that would otherwise allow contaminants to travel under the freeze wall. As outlined in the final EIS, the freeze wall will be established by drilling vertical holes from the surface into the basement rock (over 400 m below surface). The freeze holes will be spaced approximately 5 to 10 m apart. Over 300 freeze holes are estimated for the Project. The ground will be frozen from the surface down into the low permeability basement rock to create a continuous wall around the mining area that is completely contained from the surrounding regional groundwater.<sup>17</sup> The result is a closed-loop system that prevents the freeze wall brine from entering the environment.

The foundation of the basement rock is composed of thick, ancient rocks (e.g., metamorphic and igneous), which form the crust of continents. A substantive testing regime conducted by Denison demonstrates that the basement rock below the uranium deposit at the Project serves as a natural aquitard.<sup>18</sup> An aquitard is a geologic formation that may contain groundwater but is not capable of transmitting significant quantities of groundwater under normal hydraulic gradients, and that may function as a confining bed.<sup>19</sup>

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<sup>17</sup> Final EIS, p. 2-ix.

<sup>18</sup> Final EIS, pgs. 2-19 and 14-12.

<sup>19</sup> Final EIS, p. 7-vi.



In the JWG Meeting, we discussed additional opportunities to incorporate traditional knowledge perspectives into technical understandings of the freeze wall mining process. Denison would be pleased to receive relevant Métis traditional knowledge in addition to the information already provided by the MN-S in its Métis knowledge study for the Project. To this end, we encourage the MN-S to share the traditional knowledge possessed by Métis elders which relates to the basement rock, to the extent the MN-S is interested in doing so. We can then consider that traditional knowledge in the context of the information presented in the EIS.

We remain committed to collaborating with the MN-S to support its understanding of the Project and the freeze wall technology. To assist the MN-S and its citizens' with this process, we would be pleased to arrange a meeting between the MN-S and Greg Newman - the Project's freeze wall subject matter expert.

### **3. Losses to Métis Title, the Value of the Uranium Resource, and the Socio-Economic Value through the Extraction of that Resource**

In the JWG Meeting, we discussed concerns expressed by the MN-S in relation to potential losses to Métis title resulting from the development of the Project. In particular, that by Denison advancing the Project, we are depriving the MN-S of the socio-economic value which would otherwise be realized if the Métis land claim were resolved in favour of the Métis. While we are unable to comment on the Province's position regarding this matter, we note that as part of the final EIS, Denison completed a socioeconomic study to assess broader socioeconomic value impacts of the Project including the potential loss of resources.<sup>20</sup>

Further, as you are aware, Denison and the Métis represented by MN-S entered into a Negotiation Protocol on November 21, 2024, which includes a process and timeline for the parties to negotiate a consent-based commercial agreement in respect of the Project. Since then, Denison and the MN-S have been negotiating such an agreement in good faith. If the parties enter into a consent-based commercial agreement, our expectation is that the consent provided by the Métis represented MN-S in consideration for certain financial and other benefits will accommodate Métis' interests and concerns regarding the Project, including the economic component.

We are hopeful that an agreement can be reached in the near future to the mutual satisfaction of the parties.

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<sup>20</sup> Final EIS, p. 3-4.

#### **4. Effects on Harvesting, Particularly Fishing, though Impacts to Whitefish Lake and Russell Lake**

In the JWG Meeting, we discussed the MN-S' questions regarding potential impacts of the Project on the animals, lands and waters within the Métis Homeland.

Denison started collecting data in the Project area and the Whitefish Lake and Russell Lake areas prior to the initiation of its EA in 2019, as early as 2016. To this end, Denison assessed commercial activity from fishers in the area and the potential impacts of the Project on commercial fishers. Based on these assessments, we determined the Project would not result in significant adverse effects to Whitefish Lake or downstream in Russell Lake.<sup>21</sup> However, Denison still factored the Project's potential impact on harvesting activities into its mitigation planning.<sup>22</sup>

With respect to woodland caribou, the Project is located in a provincially defined caribou range where the population is deemed to be stable and caribou habitat disturbance is within the federal threshold.<sup>23</sup> Studies conducted and integrated into the EIS support the conclusion that effects of the Project on woodland caribou will be not significant. The residual effects of alteration and/or loss of available habitat and of change in mortality are not expected to affect the sustainability or integrity of the regional woodland caribou population.<sup>24</sup> To this end, Projects impacts to caribou from the removal of habitat will not increase disturbance beyond the federal threshold and caribou populations will continue to be self-sustaining. Our evaluations indicate that effects from the Project would be an avoidance of use by caribou to other forested areas within the range, and the only possible direct mortality impact for woodland caribou may result from collision with a vehicle.

Denison has committed to offset the habitat removed (with a buffer) and is developing a caribou management plan with the Province. As part of the Province's boreal woodland caribou management efforts, it is working with industry to develop effective and practical approaches to mitigate potential impacts to woodland caribou. In the Province's hierarchy of controls for caribou habitat management, "offset" is the restoration of habitat outside a project's footprint which is used to compensate project impacts where such impacts result in a loss of functional habitat for an extended period of time.

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<sup>21</sup> Final EIS, s. 13.5-4.

<sup>22</sup> Final EIS, p. 11-69.

<sup>23</sup> Environment and Climate Change Canada, "Report on the Progress of the Recovery Strategy Implementation (Period 2017 - 2022) and the Action Plan Implementation (Period 2018 - 2023) for Caribou (*Rangifer tarandus*), Boreal Population, in Canada" dated 2024, available [online](#).

<sup>24</sup> Final EIS, p. 9-313.

As stated in the EIS, Denison and the Province will develop a Draft Caribou Mitigation Plan, which will include a detailed assessment of the necessary habitat offset.<sup>25</sup> This offset has not been settled. The EIS outlines the engagement activities Denison has undertaken with regulatory agencies to determine the woodland caribou habitat offset calculation framework.<sup>26</sup> Denison understands the MN-S has been invited to be a part of the Province's advisory committee to develop the woodland caribou mitigation framework but has not yet participated. Denison encourages the MN-S to participate with the Province in this process so that its input can be considered in the development of this framework.

During the JWG Meeting, we asked the MN-S whether there are any obstacles to rehabilitating caribou habitat which Denison can address, to which the MN-S did not provide an answer at the time. We remain open to receiving feedback from the MN-S on this matter. As noted above, Denison is currently engaging with the Province to develop the Project's Draft Caribou Mitigation Plan. We would be pleased to receive input from the MN-S regarding the development and implementation of this plan.

## **5. Monitoring of Ongoing Impacts**

In the JWG Meeting, we discussed opportunities for Denison and the MN-S to collaborate regarding the Project's monitoring programs.

Denison understands the importance of undertaking monitoring at the Project and enabling access to information which is discernable and transparent. This includes facilitating a process to discuss challenges and concerns of Métis citizens. The need for an effective communication process between the parties was a common theme at the JWG Meeting. From our perspective, Denison and the MN-S share the desire to collaboratively develop such a process to effectively communicate monitoring and other important information and to bridge scientific and traditional knowledge perspectives. At the JWG Meeting (and in prior engagement meetings with MN-S), we have discussed options to achieve this goal. Denison has also implemented a variety of communication and engagement methods in the development of the EIS and on an ongoing basis, to make information about the Project accessible to Métis citizens and others.

Denison appreciates the feedback shared by the MN-S regarding the importance of developing an effective method to communicate Project monitoring information to Métis citizens. Denison is committed to developing this process within the first year of Project construction. We look forward to collaborating with the MN-S on this matter.

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<sup>25</sup> Final EIS, p. 9-311.

<sup>26</sup> Final EIS, Table 4.5-1, Appendix 9-E.



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345 4<sup>th</sup> Avenue South  
Saskatoon, SK S7K 1N3  
T: 306-652-8200  
[www.denisonmines.com](http://www.denisonmines.com)

## 6. Consent Process

As we discussed in section 3 above, in parallel to the ongoing discussions regarding the potential impacts of the Project on Métis rights and title, the MN-S and Denison continue to advance commercial negotiations to provide the consent of the MN-S to the Project.

Denison has been seeking the free, prior and informed consent of the MN-S to the Project since 2019. Throughout this time, we have worked collaboratively with the MN-S to develop a process which satisfies the goals of reconciliation and respects the rights of the MN-S to work towards reaching consensus and agreement on the Project. In doing so, we have meaningfully engaged with the MN-S to support its understanding of potential Project impacts to Métis traditional land use and rights.

We look forward to continuing our engagement with the MN-S to seek reconciliation of both parties' rights and interests in relation to the Project and surrounding lands and waters.

Sincerely,

A handwritten signature in black ink that reads 'Carolanne Inglis-McQuay'.

Carolanne Inglis-McQuay  
Director, Corporate Social Responsibility

cc: David Cates, President & Chief Executive Officer, Denison Mines Corp.  
Janna Switzer, Vice President, Environment, Sustainability & Regulatory, Denison Mines Corp.



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## **Appendix A**

(See attached)

# Agenda

## Joint Working Group: MN-S and Denison Engagement

### Outstanding Issues (per corr. to CNSC March 31, 2025)

1. Introductions
2. Concerns about stigma, contamination and residual impacts
3. Basement rock permeability
4. Losses to Metis title, the value of the uranium resource and the socio-economic value of that resource
5. Effects on harvesting, particularly fishing, though impacts to Whitefish Lake and Russell Lake
6. Monitoring of ongoing impacts
7. Consent process







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July 7, 2025

Chief Jonathon Sylvestre  
Birch Narrows Dene Nation  
Turnor Lake, Saskatchewan S0M 3E0

Sent via email: [chief1@birchnarrows.ca](mailto:chief1@birchnarrows.ca)

**Re: Response to Letter from Birch Narrow Dene Nation dated May 26, 2025**

Dear Chief Sylvestre:

On behalf of Denison Mines Corp. (“**Denison**”), I write in response to your letter dated May 26, 2025 addressed to the Canadian Nuclear Safety Commission (“**CNSC**”) and copied to Denison regarding Birch Narrow Dene Nation’s (“**BNDN**”) change in position regarding the Wheeler River Project (the “**Project**”).

We write to address the key issues raised by your letter.

**1. Further Technical Concerns**

We are in receipt of Appendix A to your letter, which provides BNDN’s further comments on the Project Technical Review Table. We are pleased that Denison has fully, provisionally or partially addressed 42 of those comments. Our technical team is actively reviewing and working to respond to your comments and will provide those responses as soon as practicable.

**2. Assessment Record Should Reflect Change in Position**

On January 18, 2024, BNDN sent correspondence to Denison advising that Denison’s detailed technical responses to BNDN’s public comments on the draft Environmental Impact Statement (EIS) were adequate. Since that time, Denison has worked to ensure that BNDN is informed about the progress of the Project. Until your recent correspondence, Denison had not received any comments on the Project from BNDN since that date.

On March 3, 2025, Denison was advised that BNDN had unresolved environmental concerns with respect to the Project. Denison responded to your letter on March 12, 2025 and requested an opportunity to meet with you to understand the details of your concerns and to identify ways they can be addressed as the Project moves forward. We have enclosed copies of this correspondence

for reference.<sup>1</sup> We have not yet received a response from you to this March 12, 2025 offer to meet to discuss BNDN's interests in respect of the Project.

Your May 26, 2025 letter requests that CNSC remove any past correspondence indicating BNDN support for the Project from the public registry. We are not aware of any CNSC policy or direction which would permit comments submitted as part of the environmental assessment of a project to be removed from the record. The Impact Assessment Agency is required to maintain the Canadian Impact Assessment Registry and to facilitate timely access to project files and records, including "any public comments received during the impact assessment,"<sup>2</sup> while CNSC is obligated to keep a record of all documentary evidence and written submissions filed.<sup>3</sup> These statutory obligations are reflected in CNSC's Indigenous Engagement guidance document, which directs proponents to "document all Indigenous engagement activities."<sup>4</sup> In light of these obligations, it would be inappropriate for BNDN's previous correspondence to be removed from the registry or the Indigenous Engagement Record.

We note that your letter specifically disclaims "letters submitted by the Birch Narrows Dene Development Inc. (BNDDI), which were issued without undergoing any process that appropriately considered the concerns and interests of BNDN members." As far as Denison is aware, no comments or letters have been submitted by BNDDI as part of the environmental assessment. All correspondence written on behalf of BNDN and addressed to Denison has been received from Chief or council members and Denison has not described that correspondence as indicating support for the Project in any of the EIS materials.

While we are disappointed that BNDN has reversed its earlier position on Denison's responses to BNDN's technical comments, Denison acknowledges and respects BNDN's governance structures and that perspectives within the BNDN community in respect of the Project have shifted. Denison is committed to continuing its ongoing engagement with BNDN and our team remains available to meet with you at a mutually agreeable time to better understand your concerns.

### **3. Denison's Approach to Indigenous Engagement**

We understand that BNDN is concerned that it has not been identified as an Indigenous Community of Interest in respect of the Project. By way of background, Denison has been the operator of the Wheeler River property since 2004, and its predecessors have been in the area since the 1980s. Denison followed a systematic and comprehensive process to identify Indigenous communities who may be impacted by the Project, informed by a wide variety of information, such as the wildlife and fur block management administration areas, existing traditional land use information (particularly information made available through the Key Lake and McArthur River public review processes), access restrictions on Highway 914 north of Key Lake, anticipated impacts to water, anticipated transportation routes, and publicly available

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<sup>1</sup> We understand this correspondence was intended to be attached to your letter of May 26, 2025, but it does not appear those attachments were included.

<sup>2</sup> *Impact Assessment Act*, S.C. 2019, c. 28, s. 1 (Sections 104, Section 112(1)(f)).

<sup>3</sup> Canadian Nuclear Safety Commission Rules of Procedure, SOR/2000-211, s. 15.

<sup>4</sup> Canadian Nuclear Safety Commission, REGDOC-3.2.2, Indigenous Engagement, s. 4.2.2.

descriptions of Indigenous Nations' traditional territories, including that of BNDN. Our approach was further informed by our discussions with those Indigenous Nations with the potential to be adversely by Project activities and supported by information from and interactions with representatives of the Saskatchewan Ministry of Environment and CNSC.

All of this information, along with our long experience in the region, has informed our approach, to identifying Indigenous communities to whom a level of deep consultation or engagement is owed. This approach has been confirmed by both regulators.

This approach does not, and has not, precluded Denison from engaging and sharing information with Indigenous Nations. Denison has continued to engage with all interested Indigenous Nations and to tailor our approach to engagement based on new or updated information regarding the potential for adverse impacts to the Indigenous and Treaty rights of Indigenous communities.

Denison remains committed to advancing the Project in a manner respectful of BNDN, its relationship with its traditional lands and the environment, and its governance structures. We are working to understand BNDN's new concerns based on your recent comments on the Project Technical Review Table and look forward to providing BNDN with our responses in the near future.

Sincerely,



Janna Switzer  
Vice President, Environment, Sustainability & Regulatory

cc: David Cates, President & Chief Executive Officer, Denison Mines Corp.  
 Carolanne Inglis-McQuay, Director, Corporate Social Responsibility, Denison Mines Corp.  
 Jessica Way, Environmental Review Specialist, Environmental Review Division, Canadian Nuclear Safety Commission  
 Justin McKeown, Senior Advisor, Indigenous Consultation, Canadian Nuclear Safety Commission  
 Jeff Dereniwski, Senior Environmental Assessment Administrator, Environmental Assessment and Stewardship Branch, Ministry of Environment

Attach: Correspondence BNDN to DEN: March 3, 2025  
 Correspondence DEN to BNDN: May 12, 2025





March 31, 2025

Canadian Nuclear Safety Commission  
Environmental Review Division  
280 Slater Street, P.O. Box 1046, Station B  
Ottawa, ON K1P 5S9

Attention: Jessica Way, Environmental Review Officer

Dear Ms. Way:

**Re: Métis Nation – Saskatchewan Outstanding Issues and Process Requirements Regarding Denison Mines Corp.'s Wheeler River Project**

This letter is being provided by the Métis Nation – Saskatchewan (“**MN-S**”) further to the ongoing consultation process in respect of the Canadian Nuclear Safety Commission’s (“**CNSC**”) duty to consult regarding Denison Mines Corp.’s (“**Denison**”) Wheeler River Project (“**Project**”). In particular, we are following up on our recent discussions regarding outstanding Métis concerns with the Project. As you know, the MN-S has substantial concerns with the Project’s certain and potential impacts to Métis rights and interests. We are providing this letter to outline steps that can be taken to advance consultation in respect of some of the Métis concerns that have been raised to-date.

At this stage, we think it is important to note that recent jurisprudence from the Federal Court has determined that the CNSC must engage in a consent-based discussion aimed at securing the free, prior and informed consent of the Métis in assessing the Project. The MN-S has requested an opportunity to work with the CNSC to craft such a process, and we look forward to discussing that approach.

In the meantime, this email and letter sets out some specific steps that can be taken by the MN-S, in collaboration with the CNSC, to begin addressing concerns that have been raised by the Métis in respect of the Project. We believe those processes can also help lay the foundation of a subsequent consent-based discussion pursuant to the direction of the Federal Court. We have set out key issues for engagement on a topic-by-topic basis below, along with steps that we have identified to advance the engagement.

**1. Concerns regarding stigma, contamination and residual impacts**

- The Métis community has experienced the effects of uranium mining in Saskatchewan for generations. We believe that there is knowledge that can be collected from Métis elders and citizens, regarding their experience with the

effects of uranium mining, that can help us to better predict how Métis land and resource use will change following the development, and eventual reclamation, of the Project. We know from previously held discussions that Métis citizens have avoided harvesting and trapping near Cluff Lake. We would like to engage in a systematic study to help capture these outcomes so that the foreseeable impacts of the stigma associated with the Project can be understood by the CNSC.

- Funding for such a study has also been requested from Saskatchewan, so work could be coordinated. The process for such a study will include the following elements, with appropriate funding to carry them out:
  - community interviews or meetings as appropriate in communities close to existing impacts;
  - community interviews or meetings as appropriate in communities which utilize the Project area, as identified in previous preliminary work by the MN-S; and
  - review of prior research and best practices on managing stigma and risk associated with uranium mining contamination.
- With the proposed study in-hand, we can also work with CNSC and Denison technical staff to identify and discuss opportunities to help minimize stigma (if any), such as through Project changes, Métis involvement in Project operations and monitoring, and Métis involvement in closure processes and decisions. These discussions can be conducted through several channels, including:
  - technical discussions;
  - leadership discussions, involving leadership from the MN-S and the 13 Métis Locals; and
  - community workshops.

## 2. Basement rock permeability

- Métis elders and other Citizens have expressed their concern with Denison's assertion that the basement rock under the Project is impermeable, and that hazardous materials will be fully contained by the frozen curtain walls.
- The MN-S proposes that engagement to address these concerns begin with community meetings or community interviews as appropriate to collect Métis knowledge within the 13 Métis communities relevant to basement rock permeability.
- MN-S will then have time to review the gathered information and meet with CNSC technical staff to evaluate current understandings of basement rock



permeability and mitigation measures. These discussions can include identifying and considering alternative Project design options, such as freezing underneath the ore body.

- Following these discussions and the identification of alternatives, we would propose further meetings:
  - leadership discussions, involving leadership from the MN-S and the 13 Métis Locals; and
  - community workshops.

**3. Losses to Métis title, the value of the uranium resource, and the socio-economic value through the extraction of that resource.**

- As articulated throughout our correspondence to the Crown, the Project will have significant adverse effects on the Métis, and specifically the Métis land claim.
- We would like to inform our discussions with CNSC by undertaking a study on the socio-economic value that the Métis are being deprived of by Denison undertaking the Project, instead of the Métis undertaking the Project once the land claim is settled. This lost socio-economic value includes the loss of the opportunities to alter the Project's scope and operations to maximize capacity development opportunities for the Métis (including through employment, training, and business development), to undertake the Project in a way that seeks to minimize socio-economic stress on our communities, and to minimize the adverse effects on the lands, water and wildlife that occupy our land claim.
- Funding for such a socio-economic study has also been requested from Saskatchewan, so work could be coordinated on this. MN-S is not aware of similar studies being done, so this work may involve several meetings with technical experts, MN-S environment and consultation administrators, and potentially MN-S leadership to discuss the scope and considerations for such a study. The study should also include community feedback to help ensure that the results are accurate and meaningful.
- Once the socio-economic study is available, we would look to engage with CNSC, and potentially Denison, to help inform the Crown of the lost socio-economic potential of the Métis land claim. We would also welcome opportunities to engage with CNSC and Denison to identify appropriate accommodation methods. It is our hope that CNSC and Denison would engage in these discussions with an aim of securing the free, prior, and informed consent of the Métis.

- In addition to the socio-economic study, we would like to work with CNSC and Denison to better understand the lost financial value of the resource that will be extracted from the Métis homeland. Developing this understanding may require the retention of experts, and the disclosure of updated information by Denison regarding its resource modelling. If necessary, we are willing to consider a non-disclosure agreement or similar confidentiality commitments to protect information that Denison deems to be sensitive.
- Once a study on lost economic value is complete, we would look to engage with CNSC and Denison (and potentially Saskatchewan) to understand if there are methods for minimizing the adverse effects on the Métis. Such opportunities may include the provision of guarantees or indemnities of the lost value that can be realized when the Métis establish Aboriginal title. Alternatives, such as resource revenue sharing, may also help to mitigate the adverse effects on the Métis land claim, but the acceptability of any such sharing would be subject to input from the Métis Locals.

#### **4. Effects on harvesting, particularly fishing, through impacts to Whitefish Lake and Russel Lake.**

- We have previously identified our concerns that the Project will adversely affect the animals, lands and waters of the Métis Homeland and land claim.
- Having already expressed our concerns, including with the effective extinguishment of nearby Métis commercial fishing rights, the release of known contaminants into waterways (for example selenium), and the continuing obstacles to rehabilitating the caribou population and the Métis reliance on caribou, we would like CNSC and Denison to come to the table to discuss potential mitigation measures to address these concerns.
- If robust and meaningful mitigation measures can be identified, we would propose an opportunity to bring these measures back to Northern Regions I and III and our 13 Locals, to secure their feedback and further inform our discussions.
- Ultimately, through appropriately resourced discussions, we would like to reach a conclusion on fitting accommodation measures that can help inform a decision by the Métis Nation to provide its free, prior, and informed consent.

#### **5. Monitoring of ongoing impacts**

- The Project will be developed within the Métis Homeland and within the Métis land claim specifically. For this reason, the MN-S seeks to be robustly and meaningfully engaged in the oversight of the Project throughout its operations lifespan and into closure.

- We would like to work with CNSC to discuss CNSC oversight and monitoring structures and opportunities for involvement of Métis in those structures, including participation in decision making and access to Project data, including monitoring data.
- Once there is clarity on the depth of involvement available to the Métis through the lifespan of the Project, we intend to present that material to Northern Region I and III and our 13 Locals, and it can form a part of the free, prior and informed consent process (and ultimately, decision).

## 6. Consent process

- We believe that the above elements are critical to understanding how the Project will adversely affect the Métis and to identifying opportunities for robust, meaningful accommodation.
- With the above processes complete, the MN-S, along with CNSC and Denison, will be positioned to commence a meaningful and robust process of seeking and securing the free, prior, and informed consent of the MN-S, including Northern Region I and III and the 13 Locals, for the Project.

This letter is not intended to be comprehensive, but to identify pathways along which the MN-S, the CNSC, and Denison can advance through the duty to consult process and ultimately address some of the foreseeable issues that will arise in seeking the free, prior, and informed consent of the Métis.

MN-S looks forward to further engagement with the CNSC on this matter.

Maarsii, thank you.



Hillary Peterson,  
Senior General Counsel  
Métis Nation – Saskatchewan

cc: Laura Burnouf, Northern Region I Regional Director, MN-S  
Mervin "Tex" Bouvier, Northern Region III Regional Director, MN-S  
Andrew Spriggs, Lands and Consultation Manager, MN-S  
Brent Laroque, Director of Environment, MN-S



July 31, 2025

Denison Mines Corp.  
345 4<sup>th</sup> Avenue South  
Saskatoon, SK, Canada, S7K 1N3

Attention: Carolanne Inglis-McQuay, Director, Corporate Social Responsibility

Taanishi, Hello Ms. Inglis-McQuay:

**Re: MN-S Comments on Denison Wheeler River Project Final EIS and Indigenous Engagement Report**

The Métis Nation – Saskatchewan (“**MN-S**”) provides this letter to respond to Denison’s latest letter, dated June 3, 2025 (“**June 3 Letter**”), in the ongoing engagement process in respect of the Denison Mines Corp.’s (“**Denison**”) Wheeler River Project (“**Project**”). The June 3 Letter is the latest correspondence in the engagement between Denison and the MN-S. That engagement also includes, most recently, a meeting between Denison and the MN-S on April 30, 2025 (“**JWG Meeting**”), a letter from Denison to Saskatchewan dated May 5, 2025 (“**May 5 Letter**”), and a letter from the MN-S to Saskatchewan dated June 13, 2025, responding to the May 5 Letter.

We appreciate Denison’s engagement in the June 3 Letter and in our meetings and correspondence with Denison to date. However, Métis concerns and the potential impact to Métis rights and interests have not been meaningfully considered, addressed, or accommodated, by Denison or the Crown, to date. Denison’s comments in the June 3 Letter are insufficient to address Métis concerns. Below, the MN-S details some of the insufficient responses in the May 5 Letter and requests additional clarification on several points.

**1. Denison’s Responses to Métis Concerns are Insufficient**

In the June 3 Letter, Denison responds to Métis concerns largely by reiterating the conclusions of the Final Environmental Impact Statement (“**EIS**”) for the Project. Denison relies on the conclusions of the EIS to assert that the Project will not result in significant residual effects to, or compromise, groundwater, human health, safety, fish health and populations, Whitefish Lake or downstream in Russell Lake, or woodland caribou.<sup>1</sup>

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<sup>1</sup> June 3 Letter, PDF 2 of 11.







Denison's approach to addressing Métis concerns is insufficient in several ways, as follows.

Denison cannot rely on the EIS to address Métis concerns because the EIS did not appropriately incorporate Métis knowledge. For instance, the Preliminary Métis Knowledge Study is not cited as a "Source of Indigenous Knowledge" in any technical sections of the updated EIS pertaining to groundwater, terrestrial environment, or aquatic environment.

More than just relying on the EIS however, Denison's response to the MN-S' concerns in the June 3 Letter is insufficient because Denison does not engage with the accommodations which the MN-S has requested:

- (a) The June 3 Letter responds to Métis concerns regarding the permeability of the basement rock<sup>2</sup> but does not directly address Métis knowledge on this topic or discuss the possibility, practicality, and advisability of the MN-S' requested accommodation of freezing under the deposit.
- (b) The Métis have significant concerns with contamination from the Project and the impacts, both real and perceived, on lands, air, water and wildlife of the Métis Homeland, particularly fish. The June 3 Letter responds to these concerns<sup>3</sup> but does not address the feasibility or utility of the accommodations of a "no contaminant increase" standard or "no selenium" standard, both requested by the MN-S.<sup>4</sup>
- (c) In the June 3 Letter, Denison acknowledges that "perceptions around the quality of the resource could still change Métis behaviour."<sup>5</sup> However, Denison does not address the MN-S' requested steps to properly assess stigma impacts, including the importance of undertaking a study on the continuing effects of the Cluff Lake mine site on Métis harvesting and potential methods of mitigating such effects, which may help to assess how the Project may impact Métis land use and connections to the land during operations and after closure.<sup>6</sup>
- (d) In the June 3 Letter, Denison reiterates its offer to consider MN-S input on Caribou mitigation.<sup>7</sup> The MN-S appreciates this offer and is working to develop recommendations on Caribou mitigation. However, as the MN-S detailed in the JWG Meeting, the MN-S cannot develop those recommendations without community engagement. Neither Denison nor the MOE have provided funding for

<sup>2</sup> June 3 Letter, PDF 5-6 of 11.

<sup>3</sup> June 3 Letter, PDF 2-3 and 7-8 of 11.

<sup>4</sup> MN-S Letter to Saskatchewan, December 22, 2024, p 10.

<sup>5</sup> June 3 Letter, PDF 4 of 11.

<sup>6</sup> MN-S and MOE meeting on February 21, 2025; JWG Meeting.

<sup>7</sup> June 3 Letter, PDF 8 of 11.





such engagement. Moreover, Denison “encourages the MN-S to participate” in Saskatchewan’s woodland caribou mitigation framework advisory committee.<sup>8</sup> To date, the advisory committee has not addressed distinct Métis challenges (and instead seeking to integrate Métis input into the current framework designed for First Nations). Denison should not seek to rely on the provincial caribou mitigations frameworks as effective mitigation for the Project’s impacts on caribou.

In addition to failing to engage with the MN-S requested mitigations, Denison’s statements in the June 3 Letter understate Project impacts on Métis rights and interests. Denison’s statements in the May 5 Letter were significantly more detailed than those it has now made in the June 3 Letter. As a result, the June 3 Letter omits the context behind several of Denison’s assertions. The May 5 Letter details the facts underlying the MN-S’ concerns:

- (a) The May 5 Letter confirms that Project effluent will contain a number of constituents above background levels, and these constituents will, in initial mixing, exceed respective water quality objectives.<sup>9</sup> It also confirms that “the Project will release small quantities of selenium.”<sup>10</sup>
- (b) The May 5 Letter acknowledges “that both Project-related and cumulative effects would accrue to Woodland Caribou (and its habitat)” and that the MN-S has accurately described the sources of those impacts.<sup>11</sup>

Denison has omitted these facts from the June 3 Letter. The MN-S has legitimate Project-related concerns that must be appropriately considered and accommodated.

## 2. Denison and the Crown’s Engagement to date is Insufficient

In the June 3 Letter, Denison reiterates its common assertion that it “has been seeking the free, prior and informed consent of the MN-S to the Project since 2019.”<sup>12</sup> The MN-S has comprehensively demonstrated that the history of engagement between Denison and the MN-S is complex and not always as described by Denison. The MN-S will not retread that ground here except to say that there are many instances when delays in engagement were caused by Denison.

More important than that history of engagement however is the fact that Denison, Saskatchewan and the Canadian Nuclear Safety Commission (“**CNSC**”) have not yet provided the MN-S with the opportunity and resources to engage in a consent-based process of the sort described in *Kebaowek First Nation v. Canadian Nuclear Laboratories*,

<sup>8</sup> June 3 Letter, PDF 8 of 11.

<sup>9</sup> May 5 Letter, PDF 14-15 and 18 of 37.

<sup>10</sup> May 5 Letter, PDF 15 of 37.

<sup>11</sup> May 5 Letter PDF 21 of 37.

<sup>12</sup> June 3 Letter, PDF 9 of 11.







2025 FC 319. Such a consent-based process would require, among other things, meaningfully engaging with the 13 Locals of Northern Regions I and III, collecting important data regarding Métis attitudes towards the Cluff Lake mine site, and advancing a robust traditional knowledge inventory. We have requested the funding and opportunity for this consent-based process from Denison, Saskatchewan and the CNSC.

The MN-S acknowledges that Denison and the MN-S have, since the June 3 Letter, identified a potential approach to securing Métis consent in a manner which is distinguishable from the process contemplated in *Kebaowek First Nation v. Canadian Nuclear Laboratories*, and which the parties intend to explore over the next few months.

MN-S recognizes that Denison has been delegated certain procedural elements of consultation, however these elements have been complicated by, among other factors, a lack of clarity from, and a failure to meaningfully engage by, Saskatchewan. Saskatchewan has not provided the preliminary basis for deep consultation. Deep consultation requires that the Crown be clear on what rights it understands to be affected, how strong it believes the claims to those rights are, and what communities hold those rights.<sup>13</sup> Most significantly, Saskatchewan has failed to specify which MN-S communities it believes may be impacted by the Project and is therefore consulting in relation to the Project.<sup>14</sup>

The Crown is responsible for fulfilling the duty to consult, and Saskatchewan and the CNSC's actions to date have not been sufficient to fulfill that duty.

### 3. The MN-S Requests Clarity on Outstanding Items

In addition to the ways described above that the June 3 Letter is insufficient, the June 3 Letter also creates uncertainty in several places. The MN-S requests that Denison remedy these areas of uncertainty to allow the parties to move forward.

#### a. The MN-S Requests that Denison Confirm its Views on Permeability

Denison appears to disagree with itself between the May 5 Letter and the June 3 Letter regarding testing for basement rock permeability. The MN-S requests that Denison clarify the following apparent inconsistency.

In the June 3 Letter, Denison confidently asserts that "A substantive testing regime conducted by Denison demonstrates that the basement rock below the uranium deposit at the Project serves as a natural aquitard." [emphasis added]<sup>15</sup> The May 5 Letter however

<sup>13</sup> For instance, *Gitxaala Nation v. Canada*, 2016 FCA 187, para 309; *Fort Chipewyan Métis Nation of Alberta, Local 125 v. Alberta (Minister of Aboriginal Relations)*, 2016 ABQB 713, paras 148-149.

<sup>14</sup> MN-S Letter to Saskatchewan, February 3, 2025, pp 18-19.

<sup>15</sup> June 3 Letter, PDF 5.





confirmed that such testing is “challenging” or “technically challenged” and accordingly Denison could only state that “limited groundwater is expected” [emphasis added].<sup>16</sup>

Denison’s apparently contradictory statements regarding the basement rock permeability assessment conducted by Denison are concerning. The MN-S requests further clarity on Denison’s position on basement rock permeability.

#### **b. The MN-S Requests that Denison Confirm its Commitment to Collaborative Monitoring**

In the June 3 Letter, Denison makes commitments to collaborative monitoring development it did not commit to when writing to Saskatchewan in the May 5 Letter. The MN-S requests that Denison confirm its commitments to monitoring in collaboration with the MN-S.

In the May 5 Letter, Denison committed only to “sharing information related to monitoring program and development, seeking feedback from the MN-S with the intent on discussing questions, concerns and opportunities and incorporating such feedback as appropriate.”<sup>17</sup> Now, in the June 3 Letter, Denison commits to “providing the MN-S with the outcomes of monitoring data”, to “collaborate regarding the Project’s monitoring programs” and to “collaboratively develop” methods for communicating monitoring information, within the first year of Project operations.<sup>18</sup>

The MN-S welcomes these more detailed and effective commitments. Denison did not however confirm these commitments in writing to the Saskatchewan Crown. The MN-S therefore requests that Denison clarify its planned approach to collaborative monitoring with the MN-S and invites Denison to negotiate binding commitments that can be relied upon by the MN-S.

In any event, monitoring alone is not sufficient to address MN-S concerns about the effects of the Project on the lands, waters, plants and animals of the Métis Homeland and the exercise of Métis rights.

#### **c. The MN-S Requests that Denison Confirm its Socioeconomic Study did not Assess the Loss to the Métis from the development of the Project**

In the June 3 Letter, Denison states that it “completed a socioeconomic study to assess broader socioeconomic value impacts of the Project including the potential loss of

<sup>16</sup> May 5 Letter, PDF 11-13 of 37.

<sup>17</sup> May 5 Letter, PDF 15 and 17, 19, 23, 26 of 37.

<sup>18</sup> June 3 Letter, PDF 8 of 11.





resources".<sup>19</sup> However, the reference provided, to the EIS, p. 3-4, addresses Denison's approach to Indigenous knowledge and only refers to a socioeconomic study conducted by English River First Nation. The MN-S is not aware of Denison conducting a socioeconomic study which included Métis involvement. The MN-S also not aware of any socioeconomic study being done for the Project, with or without Métis involvement, which calculated the loss to the Métis title claim from the Project proceeding. The MN-S requests that Denison clarify what socioeconomic studies it has conducted, with the involvement of which parties, and whether these studies assessed lost value to the Métis title claim and lost socio-economic opportunities by the Métis as a result of the Project advancing while the title claim remains outstanding.

#### 4. Conclusion

The issues the MN-S has detailed with the design of the Project must be addressed to meaningfully consider Métis concerns in respect of the Project. To date, Denison's engagement and the Crown's consultation has been insufficient to appropriately consider, address or accommodate Métis concerns. The MN-S looks forward to further engagement with Denison on the Project.

In terms of the form of that engagement, at the JWG Meeting, the MN-S committed to developing a further community engagement plan in relation to the Joint Working Group. The MN-S's work on this plan is ongoing but has been delayed by the wildfire situation this spring. The MN-S' communities will also be facing multiple project related engagement demands this summer. Meanwhile, in the most recent correspondence of which the MN-S is aware on the topic, on April 2, 2025, Denison indicated that your counsel would be in contact to advance the Terms of Reference for the Joint Working Group. To our knowledge, we have received no recent contact regarding the Terms of Reference. The MN-S will remain in communication with Denison to advance the Joint Working Group and looks forward to further communication from Denison's counsel on the Terms of Reference.

Maarsii, thank you.

A handwritten signature in blue ink, appearing to read "Brent Laroque".

Brent Laroque  
Director of Environment  
Métis Nation – Saskatchewan

Cc: Hilary Peterson, Senior General Counsel, MN-S  
Arend Hoekstra, Cassels Brock & Blackwell LLP

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<sup>19</sup> June 3 Letter, PDF 6 of 11.

