



## **Wheeler River Project**

Indigenous Engagement  
Appendix B Part 2

**August 2025**

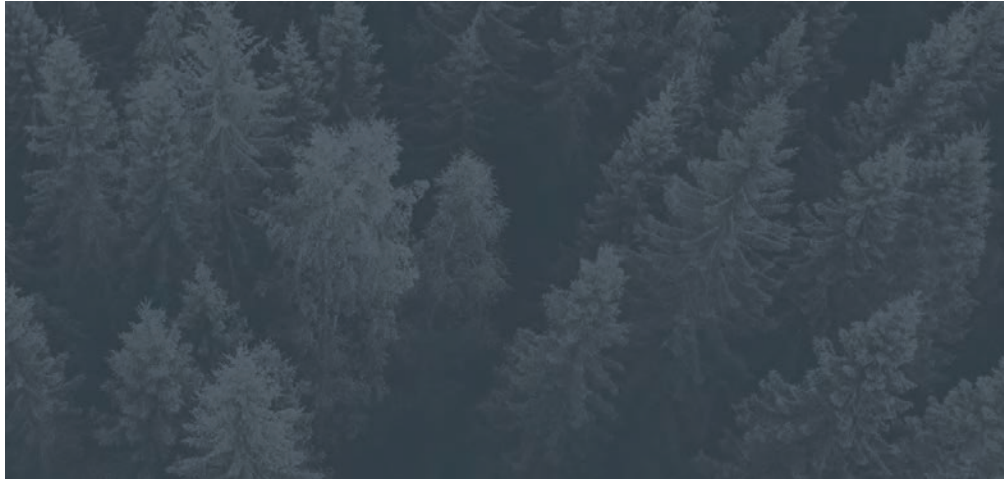
*Powering*  
**PEOPLE, PARTNERSHIPS  
AND PASSION.**





## Uranium Development & Exploration The Wheeler River Project

April 22, 2021 Ya'thi Néné Lands and Resources Staff



### Agenda

- **Wheeler River Project**
  - Brief overview
  - Update to Project
  - Geotechnical drilling program (2021)
- **Status of Wheeler River Environmental Assessment**
  - Environmental Assessment process to date
  - Valued Components
- **Next Steps with Athabasca Basin**
  - Overview of virtual meetings

## Cautionary Statements & References

This presentation and the information contained herein is designed to help you understand management's current views, and may not be appropriate for other purposes. This presentation contains information relating to the uranium market, third party and provincial infrastructure, and the plans and availability thereof, derived from third-party publications and reports which Denison believes are reliable but have not been independently verified by the Company.

**Certain information contained in this presentation constitutes "forward-looking information", within the meaning of the United States Private Securities Litigation Reform Act of 1995 and similar Canadian legislation concerning the business, operations and financial performance and condition of Denison.** Generally, these forward-looking statements can be identified by the use of forward-looking terminology such as "plans", "expects", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates", or "believes", or the negatives and/or variations of such words and phrases, or state that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur", "be achieved" or "has the potential to". In particular, this presentation contains forward-looking information pertaining to the results of, and estimates, assumptions and projections provided in, the Wheeler PFS and the Waterbury PEA, including future development methods and plans, market prices, costs and capital expenditures; assumptions regarding Denison's ability to obtain all necessary regulatory approvals to commence development at Wheeler; Denison's percentage interest in its projects and its agreements with its joint venture partners; and the availability of services to be provided by third parties. Statements relating to "mineral resources" are deemed to be forward-looking information, as they involve the implied assessment, based on certain estimates and assumptions that the mineral resources described can be profitably produced in the future.

**Forward looking statements are based on the opinions and estimates of management as of the date such statements are made, and they are subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of Denison to be materially different from those expressed or implied by such forward-looking statements.** Denison faces certain risks, including the current and potential impacts of the COVID-19 pandemic, use of mining methods which are novel and untested in the Athabasca basin, the inability to permit or develop its projects as currently planned, the inability to secure sufficient financing to pursue its business objectives, the unpredictability of market prices, events that could materially increase costs, changes in the regulatory environment governing the project lands, and unanticipated claims against title and rights to the project. Denison believes that the expectations reflected in this forward-looking information are reasonable but there can be no assurance that such statements will prove to be accurate and may differ materially from those anticipated in this forward looking information. For a discussion in respect of risks and other factors that could influence forward-looking events, please refer to the "Risk Factors" in Denison's Annual Information Form dated March 13, 2020 available under its profile at [www.sedar.com](http://www.sedar.com) and its Form 40-F available at [www.sec.gov/edgar.shtml](http://www.sec.gov/edgar.shtml). These factors are not, and should not be construed as being exhaustive.

**Readers should not place undue reliance on forward-looking statements.** The forward-looking information contained in this presentation is expressly qualified by this cautionary statement. Any forward-looking information and the assumptions made with respect thereto speaks only as of February 8, 2021. Denison does not undertake any obligation to publicly update or revise any forward-looking information after such date to conform such information to actual results or to changes in its expectations except as otherwise required by applicable legislation.

**Cautionary Note to United States Investors Concerning Estimates of Mineral Resources and Mineral Reserves:** This presentation may use terms such as "measured", "indicated" and/or "inferred" mineral resources and "proven" or "probable" mineral reserves, which are terms defined with reference to the guidelines set out in the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") CIM Definition Standards on Mineral Resources and Mineral Reserves ("CIM Standards"). The Company's descriptions of its projects using CIM Standards may not be comparable to similar information made public by U.S. companies subject to the reporting and disclosure requirements under the United States federal securities laws and the rules and regulations thereunder.

#### Qualified Persons

The disclosure of a scientific or technical nature within this presentation, including the disclosure of mineral resources, mineral reserves, as well as the results of the Wheeler PFS and Waterbury PEA, was reviewed and approved by David Bronkhorst, P.Eng., who is a Qualified Person in accordance with the requirements of NI 43-101.

#### Technical Reports

- For further details regarding the Wheeler River project, please refer to (a) the Company's press releases dated December 1, 2020, regarding the adoption of the freeze wall design for ISR at Phoenix, and September 24, 2018, regarding the Prefeasibility Study, and (b) the technical report titled "Prefeasibility Study for the Wheeler River Uranium Project, Saskatchewan, Canada" with an effective date of September 24, 2018 ("Wheeler PFS").
- For further details regarding the Waterbury Lake project, please refer to the Company's press release dated November 17, 2020 and the technical report titled "Preliminary Economic Assessment for the The Heldereth Tûé (J) Zone Deposit, Waterbury Lake Property, Northern Saskatchewan, Canada" with an effective date of October 30, 2020. ("Waterbury PEA"). The Waterbury PEA is a preliminary analysis of the potential viability of the Project's mineral resources, and should not be considered the same as a Pre-Feasibility or Feasibility Study, as various factors are preliminary in nature. There is no certainty that the results from the PEA will be realized. Mineral resources are not mineral reserves and do not have demonstrated economic viability. Scheduled tonnes and grade do not represent an estimate of mineral reserves.

For a description of the data verification, assay procedures and the quality assurance program and quality control measures applied by Denison, please see Denison's Annual Information Form dated March 13, 2020. Copies of the foregoing are available on Denison's website and under its profile on SEDAR at [www.sedar.com](http://www.sedar.com) and on EDGAR at [www.sec.gov/edgar.shtml](http://www.sec.gov/edgar.shtml).

## Denison Team

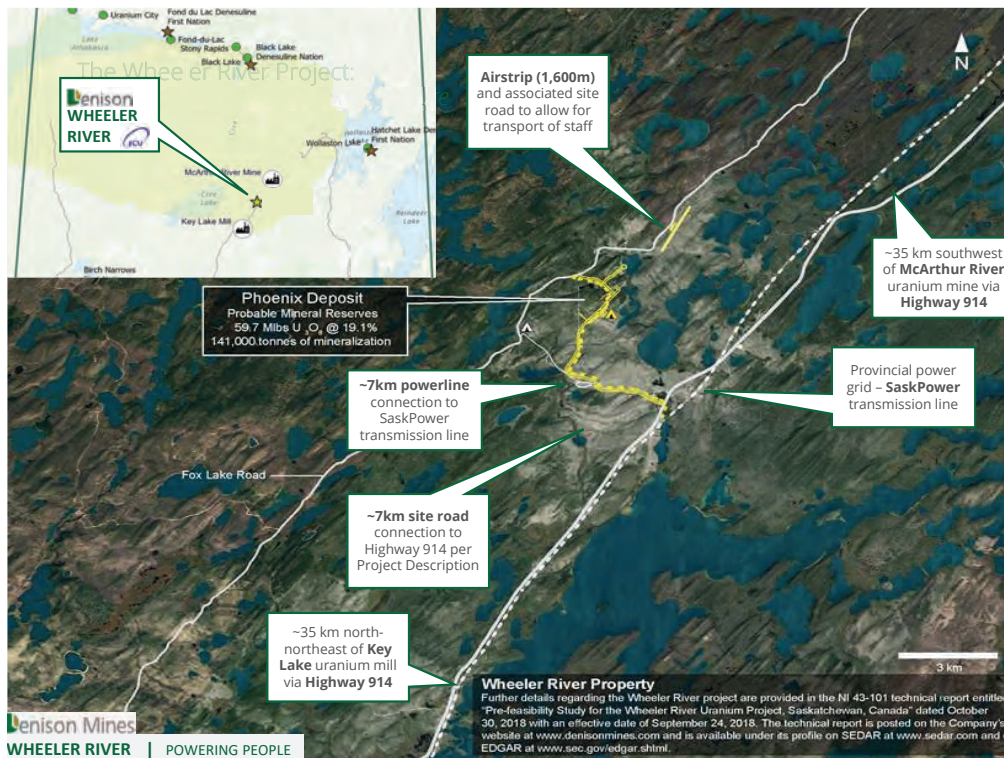
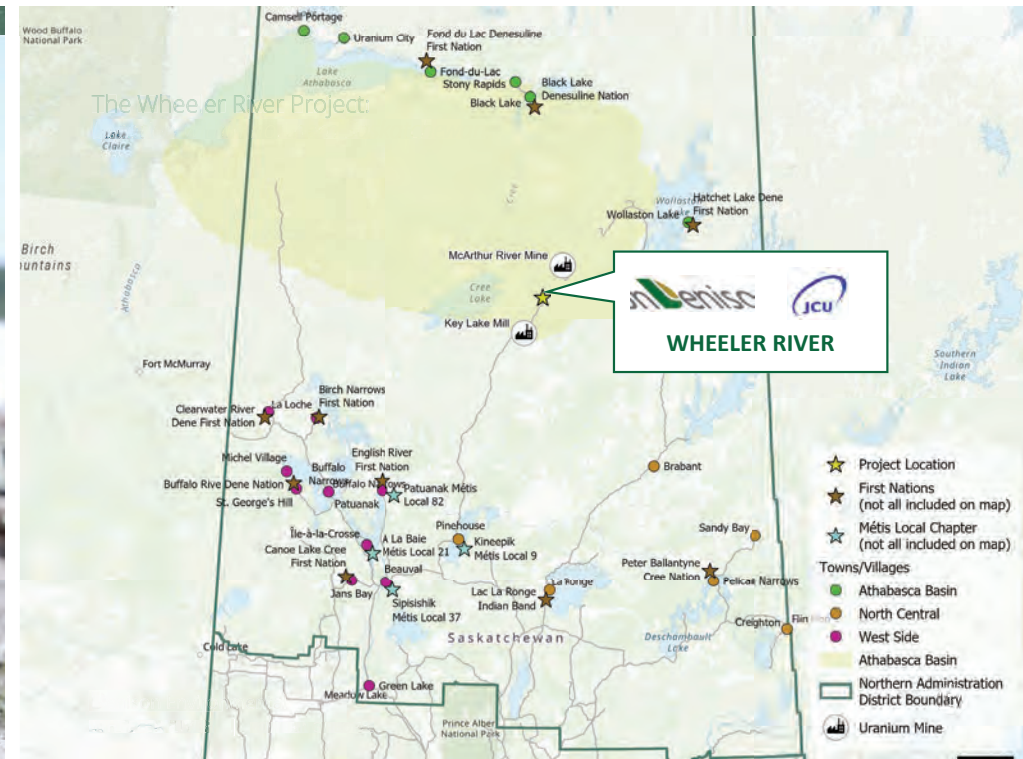
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- Janna Switzer, Environment Manager
- Chad Sorba, Technical Manager
- Carolanne Inglis-McQuay, CSR Manager
- Xavier Lu Dac, Senior Engineer
- Dana Harris, Project Services Coordinator
- Mike Dawe, Environment and CSR Coordinator
- Jenn Skilnick, Environment Coordinator





*Denison is focused on opportunities in northern Saskatchewan*

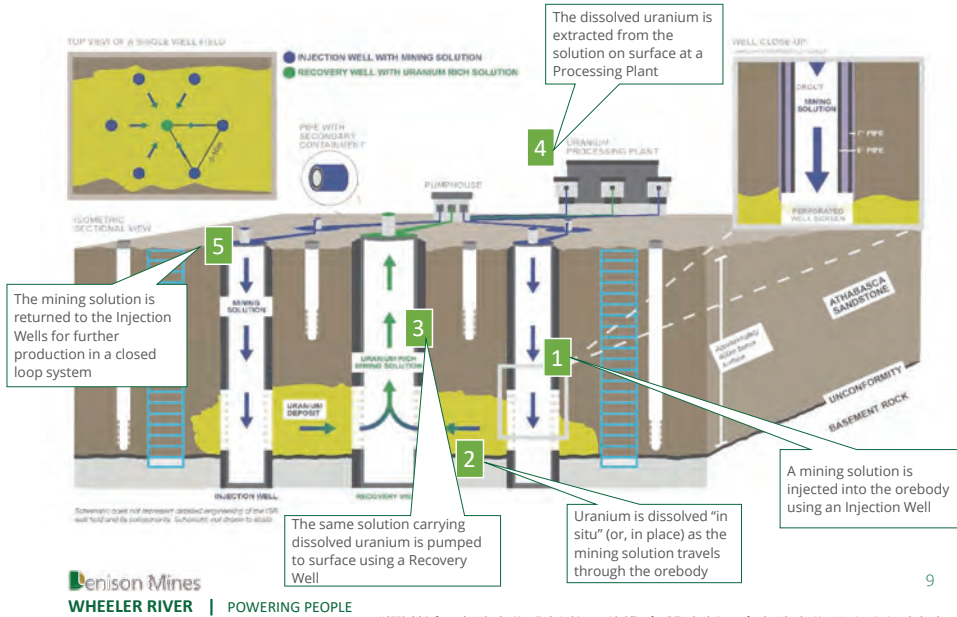
- 22.5% interest in **McClellan Lake Uranium Mill**
- 90% interest in Flagship **Wheeler River** project
  - Advancing through development process
  - Largest undeveloped uranium project in the infrastructure rich eastern Athabasca Basin
  - Environmental Assessment ("EA") initiated
  - Progressive approach to mining using In Situ Recovery ("ISR") method
- 66.9% in the **Waterbury Lake Property**, hosting the THe Heldeth Tué (formerly J Zone) deposit
  - Recently completed Preliminary Economic Assessment ("PEA")<sup>1</sup>
  - Amenable to ISR mining method
- Several other interests in the Athabasca Basin region
  - **McClellan Lake, Midwest, and Waterbury Lake** properties, all in close proximity to McClellan mill
  - **+250,000 hectares** of exploration ground





## In Situ Recovery ("ISR") Mining<sup>1</sup>:

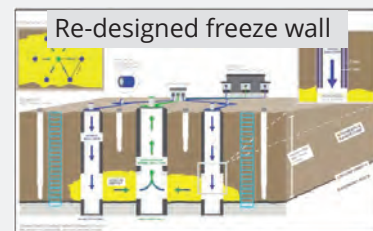
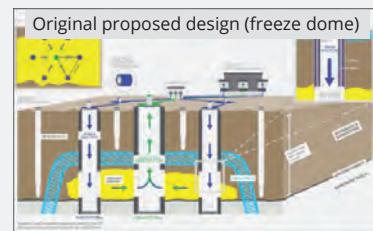
Introducing a proven mining technique to the Athabasca Basin



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## Freezing Containment Improvements:

Adapting to freezing configuration commonly used in the Athabasca Basin



### Freezing Concept Exists in Athabasca Basin

- Freezing from surface is used at Cigar Lake and McArthur River to enable safe mining activities
- Standard exploration drill is used
- Freezing technology well understood in the Athabasca Basin

### What Does Freezing do for the ISR Operation?

- A freeze wall or dome creates a barrier between solution in the mining chamber and the receiving environment; creates a contained cavity for the mining solution to extract the uranium from the ore
- Freeze containment is an additional layer of protection to the controls in place of: water pressure above, pumping controls, double-walled pipes and monitoring wells
- ISR is new to uranium mining in Canada and the freeze containment provides an additional layer of protection

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## ISR Mining:

A progressive approach to uranium mining in the Athabasca Basin

### How is ISR Different?

- All activities occur at surface; there are no traditional underground workings
- The ISR mining area has only wells and pipes to plant; no open pits, head-frame, or major earthworks
- There is no tailings production or long-term tailings storage, plus no large waste rock piles

### Waste Management Vision

- Two main waste streams expected:
  - Gypsum (non-radioactive) – remediated on site
  - Radium/Iron precipitates (radioactive) – removed from surface
- No long term waste management expected to be required after mine closure

Summer 2019 ISR Field Program  
Overpack drums in yellow

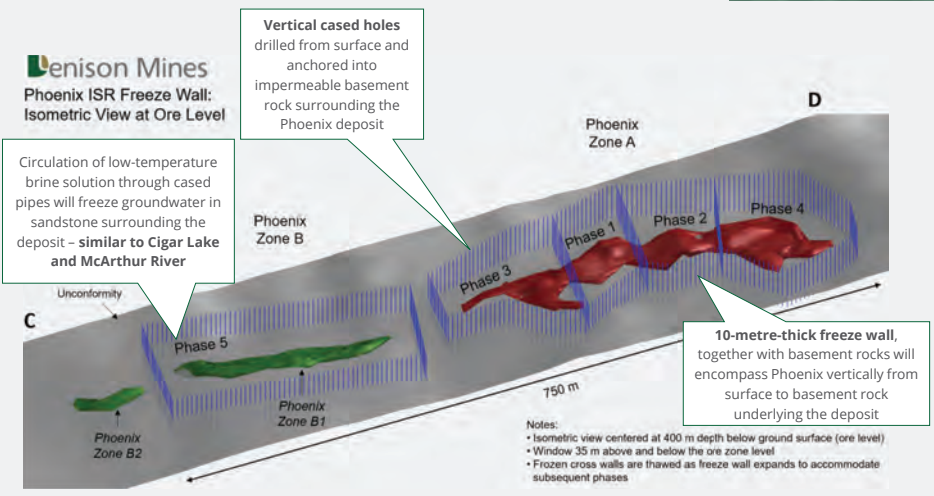


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## Freeze Containment :

Established method to create frozen barrier around mining area<sup>1</sup>

### Key Components for the Project



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## Video



## 2021 Geotechnical Drilling Program

**Action:** Denison sent YNLR the *draft* application for the permit for advanced review

**Location:** Wheeler River Project site

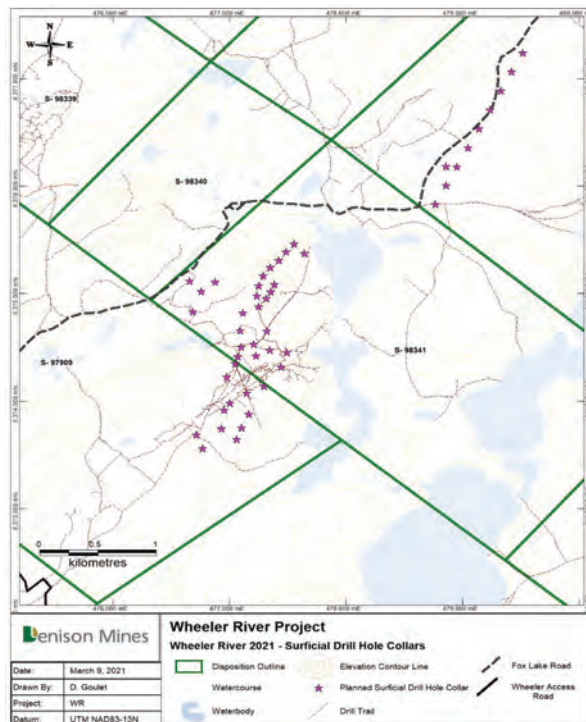
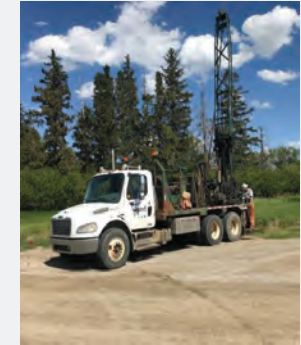
**Purpose of Activities:** Shallow drilling to understand the ground conditions in the area to advance infrastructure site design

**Total Number of Permitted Drill Holes:** 48, ranging in depth from 3m to 15m; 50% of drilling is anticipated to occur in previously disturbed area; drill pads no to exceed 6m by 15m (significantly smaller than diamond drilling); no core recovered; completed holes to be back-filled unless monitoring of water levels occurs

**Proposed Timing:** 2 weeks, end of summer, early fall (should no other delays occur)

**Trail and Water Crossings:** Existing to be used wherever possible; approximately 2km may be required; no need to install new permanent water crossings

Example Truck-Mounted Drill Rig



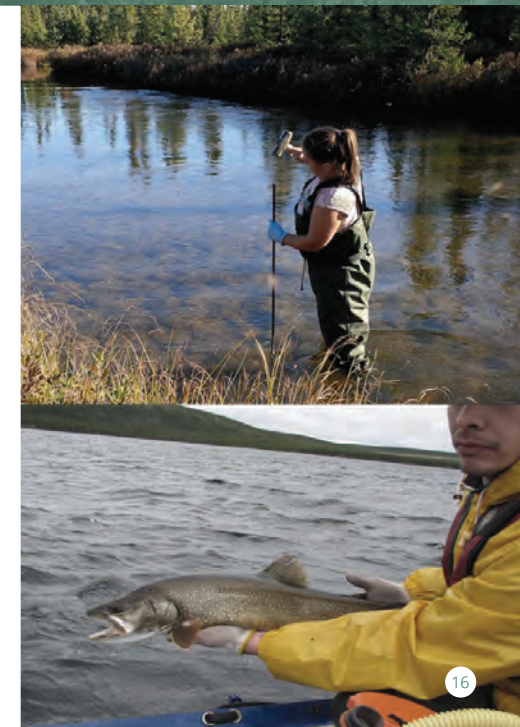
### Environmental Assessment: *Understanding the Project's interactions with human and biophysical environment*

#### Baseline Studies

- Environmental baseline studies have been ongoing since 2012
- Denison needs to understand the current environmental conditions within and around the Wheeler River Project area

#### Environmental Assessment

- Initiated the federal and provincial environmental assessment processes in May 2019 with the Wheeler River Project Description
  - Lead federal regulator:** Canadian Nuclear Safety Commission
  - Lead provincial regulator:** Saskatchewan Ministry of Environment, Environmental Assessment Branch
- Technical studies designed to understand potential effects of the Project on the biophysical and human environments





### Valued Components:

Understanding effects on the things that are important

- **Gain an understanding** of what is important to the people who use the area and to the people who may be affected by project activities.
- **Gather information** through research, from regulator feedback and through engagement with communities and Indigenous groups communities
- **Design the environmental** studies to predict how the VC's may change and what measures can be put in place to minimize and monitor the changes
- **Monitoring and reporting** of the changes to VC's will carry on throughout all phases of the project into decommissioning and post closure



## Economy



## Land and Resource Use, Cultural Continuity

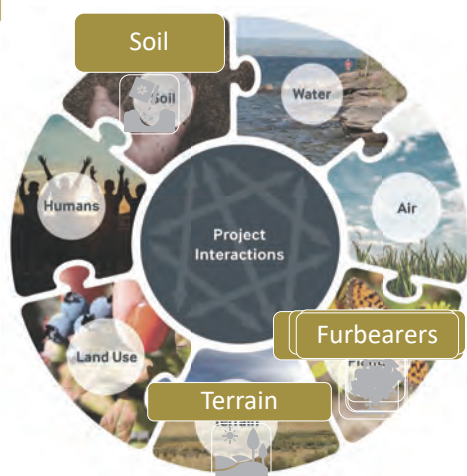


## Quality of Life



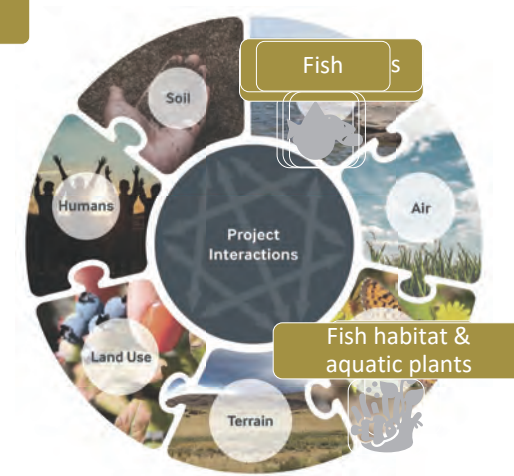


## Terrestrial



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## Aquatic



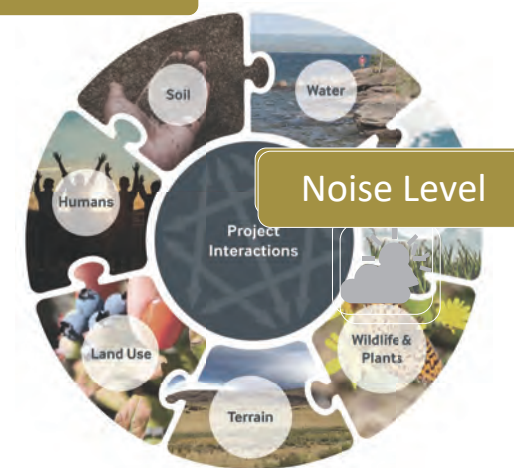
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## Groundwater



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## Atmosphere & Acoustic



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## Upcoming Denison Virtual Meetings

- All leadership / all Athabasca Residents
- Use of Zoom
  - Mute / video disabled
  - Chat function used extensively
  - Denison team answers all questions
- Link to YNLR Facebook page?
- Translations
- Online survey
- Donations to high schools
- Local door prizes
- Local MC





**Ya' thi Néné Meeting**

**Date:** April 22, 2021

**Attendees:**

**Denison:** Dave Bronkhorst, Carolanne Inglis-McQuay, Janna Switzer, Chad Sorba, Xavier Lu Dac, Mike Dawe

**YNLR:** Staff

**Notes:**

- General introductions
- Presentation
- Denison ISR video

**Questions:**

***ISR***

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- Where would you be pulling the water from, and how much?
  - Displacing current groundwater, pulling UBS back to surface, refortify and push back underground in a closed loop
  - 30m<sup>3</sup> per/hr (?) need confirmation on that number
  - Water will be pulled from either an underground aquifer, the other is white fish lake, near site
  - The goal is to minimize discharge

***Environmental***

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- Uranium process at McClean?
  - Processed at site





- **Prayer / Introductions**
- **Overview of Committee**
- **Wheeler River Project**
  - Brief overview
  - Update to Project
  - Geotechnical drilling program (2021)
- **Status of Wheeler River Environmental Assessment**
  - Environmental Assessment process to date
  - Valued Components
- **Next Meeting Date and Topics**



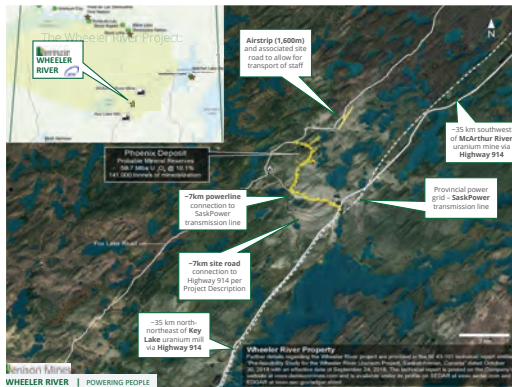
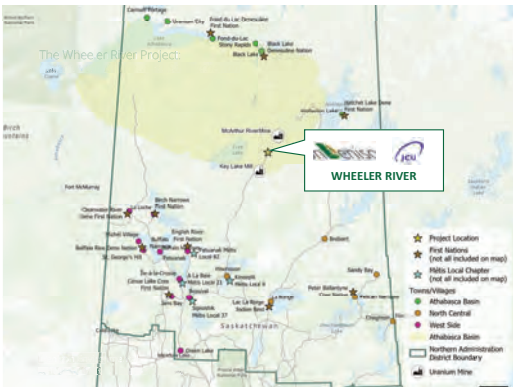
- Purpose
- Vision
- Expectations
- House-keeping
- Logo Contest?



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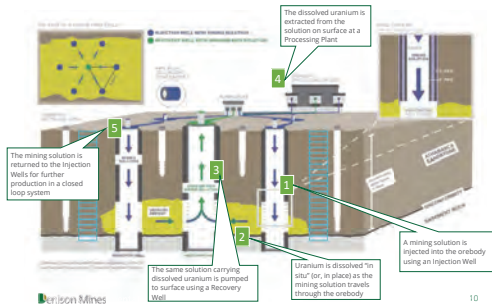
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**Denison Mines**  
WHEELER RIVER | POWERING PEOPLE



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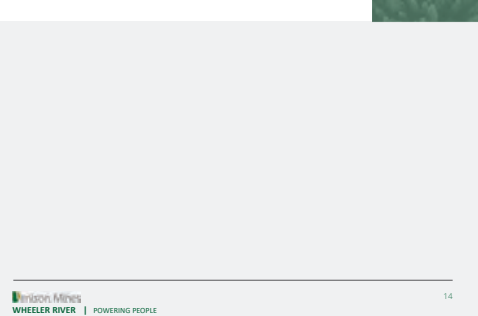
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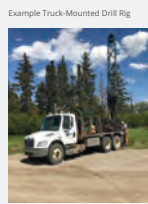
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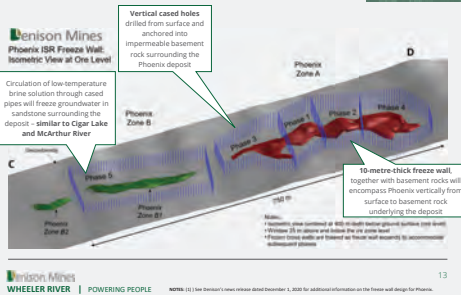
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## Environmental Assessment:

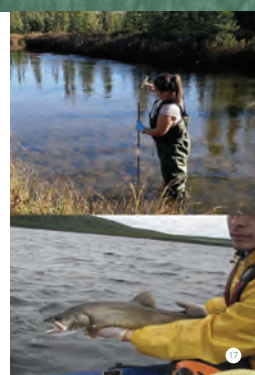
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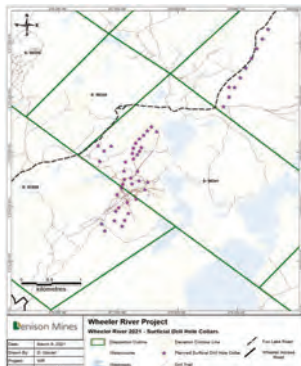
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## Economy



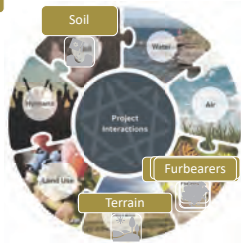
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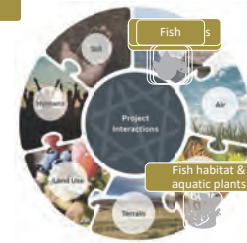
## Quality of Life



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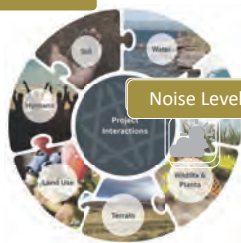
## Aquatic



## Groundwater



## Atmosphere & Acoustic





**Event:** Nuhtsiye-kwi Benéne Committee (Ancestral Lands Committee) Zoom Meeting

**Date:** April 22, 2021, 1:30pm to 3:30pm

**Info:** Meeting called by Denison and English River First Nation. Denison's presentation on Wheeler River was shared in advance. Zoom meeting recorded.

**In Attendance:** **Denison** Carolanne Inglis-McQuay, Janna Switzer, Chad Sorba  
**Committee Members and Invited Guests** 6 attendees

### Opening in a Good Way

*Prayer offered by Committee Member- Introductions*

**Committee Member:** shared the pronunciation of the committee's name in Dene.

**Group discussed:** Adding the name of the committee and description to the website. Can also introduce over Facebook.

**Committee Member** suggested incorporating a youth component that another Committee Member could lead to share words in Dene and Cree related to the committee's process and learnings.

*Overview of Committee – Gain Perspectives of Committee Members on Purpose, Vision, Expectations*

### Brainstorm/Open Discussion

*Committee Member (CM) and Denison (DEN):*

CM- Shared that the intention of the committee is to respect the land. *If you respect the land – the land will respect you. ERFN holds the land in high regard.*

CM- Said the committee needs to represent the nation with and its varied perspectives...leadership, youth, Elder/Lands, land-user.

CM- *Our purpose is to let Denison know how we feel, giving a voice to the people in a community in a respectful way, share information – two-way sharing.*

CM- *We are a land use nation – land base and traplines that have been used for generations and is still being used...it has changed over the years, and we want to share how that change impacts us – but realizing that land use does change. ERFN still uses the land as a mode of subsistence. Hunters and trappers are still ways of living for some. Denison is visitors of our land. The land is here for us to use and respect. We are here to make sure everyone respects the land.*

CM- *There were no committees back then when McArthur and Key started – and that area is quite demolished. We used to meet with the Ministry of the Environment and there was no regard. We have built a good relationship with Denison – and we must continue to talk. We might have some disagreements. I feel strongly about the land – moose, berries, etc. The way you did it last year – worked well. You came to the camp and we shared whatever you wanted to know. That was a good way. Companies must realize this – this is part of our lives and how we teach our children. It is a lot to keep giving the information over and over, but I appreciate there is a better of understand. We have been here for generations, and we want the land to be here for our children.*

CM- *I'm concerned about the forest fires. I was told if a fire goes through companies don't need to get a permit. Dufferin (exploration area) + [other comments made, hard to hear]*

DEN- We want to understand your perspective and how we can work together. I've heard this from many that Province's burn policy is deeply concerning to many.

CM- *It is great we have a youth because we will be the voice of the community. Our youth rep can help educate the youth. And having an Elder and land-user is valuable too – having a variety of concerns and perspectives means we can do better.*

CM- *The Chief and Council asked me, and I felt like I need to speak for my peers. I've been to the area before.*

DEN- My perspective on these committees has changed. I used to think it was about giving information out and trying to prove the safety. I do want to build this mine with the least impact to the environment, but I am here to learn to. I do not live in the area and I want it to be equal sharing. I want you to feel comfortable and trust that we will answer questions.

CM- *Government policies have really hindered our lifestyles and rights. We might object to certain things and that's because of the land use in certain areas.*

DEN- Active listening is really important – I'm trying to do more of that – to really take what I hear and incorporate into the project.

CM- *I like that we have technical people (Denison) on this committee. I want scientific information presented in a way that is easy to digest and understand. ISR is super confusing, and it hasn't been done in the basin. It sounds super cool, and too good to be true in a way. I don't want these meetings to be a social gathering – or a reassurance committee – but real meat and potatoes.*

### Discussion Surrounding Access

DEN- What do we consider about having access to site for ERFN members and non-members. What would you recommend that show respect for the land and the Nation?

CM- *That super important – especially during hunting season. We want you to be mindful of your activities during critical times for us.*

CM- Gate check-in works for ERFN (Fox Lake Road). We have a lot of lessons learned already to draw on. Should be able to think of things that are easier

DEN- Right now, our access road goes right through, but the old road might work to go around. We want people to be able to have access to what they need to but be safe. It would be good to look at map and those plans together and talk through to get your feedback.

**NEXT MEETING: Discussion about Access to the site (generally) for inclusion into decision-making about final access roads, locations, policies, etc**

**Housekeeping (honoraria, etc.)**

CM- provided an update to committee. Honoria will be paid by ERFN/DNG and will be in touch to set up either cheque payments or direct deposits.

**Logo Contest:** Brief discussion about a logo contest being launched to help share more about the committee and the negotiation process during this announcement phase to the community. A Committee Member suggested having posters at the school, announcing it on the radio station and through Facebook would be an effective way to share the contest details. Committee Members will work together on the details.

**Wheeler River Project 101 (Who, what, where, when, why?)**

DEN- shared Power Point slides to walk through the basics of the project made of Griffin/Phoenix deposits, with a focus on the Phoenix deposit. Griffin is in the long-term plans. The deposit is in between Key Lake and McArthur. About 100kms from camp. The deposit is 2kms long, 20kms wide. It is a compact site, a lot smaller than the traditional frame of reference. The freeze wall contains the operation and prevents leaching to groundwater. Monitoring wells are planned on all sides of the operation. With this method, no tailings facility is needed.

CM - *What is the life span of Phoenix?*

DEN-About a ten-year mine life.

CM - *ERFN has 19 reserves, would be nice to see those shown on the map as well.*

**ACTION: Denison to update map with all ERFN Reserves on it - i.e., Slush Lake reserve, Haultain, etc.**

CM - *Is the rock all the same between zones? The effect the same?*

DEN-The rock changes ever so slightly, but drilling is the same. Once the holes are installed the change comes with the time for the freeze wall to develop. IE. One year to 14 months.

CM - *Does the freezing change the rock?*

DEN-It changes the water in the rock, freezing it – to create the wall. The sandstone is permeable.

CM - *When you fill the holes, it will be the same as before?*

DEN-The solution will be taken out and backfilled so there is no connection to groundwater.

*Are the holes lined?*

DEN-They are standard diamond drill holes – steel casings, capped after. The drilling is done by companies owned by northern communities. It will take one year to drill and one year to freeze. This means sustainable business opportunities over an eight-year period. This is a lot more sustainable than one big job. This change came about when plans moved from a freeze dome to a freeze well. moved from dome to wall. It's not fracking, we have heard people are worried about this.

CM - *I didn't realize there was these outside tines coming in (permeability enhancement). When you are reclaiming, will there still be open holes?*

DEN-They will be closed. We will fill the main drill holes and that will cut off the tines (permeability enhancement).

CM - *What is the name of the solution?*

DEN-Lixiviant. It is a combination of peroxide, iron, and sulphuric acid. It was important to [ERFN member] that we are clear about the fact that it is an acidic mining solution – to be transparent with people about the nature of the solution. When you inject it into the ground, as part of the process, it dissolves. We use the acidic solution to extract uranium, and it's recovered when you pull it up to recover the uranium. It is described as a leaching process, similar to what is done at the front-end of the mill at McClean Lake.

CM - *What do the monitoring wells do?*

DEN-They are an extra layer of protection. We have the recovery well that is double lined with two layers of steel, and a layer of cement, then a freeze wall – same technology as Cigar and McArthur – freezes water in the rock.

CM - *Why hasn't it been used elsewhere?*

DEN-We have a better understanding of ISR now. This technology has advanced over time. You have to have the right conditions to use ISR.

CM - *Has uranium been mined with ISR in other places?*

DEN-Yes, it has been used in several places, including the US, Kazakhstan and Mongolia. It has also been used with copper and other deposits. However, we are looking at a much higher grade, 19%, compared to other operations. In other operations they have been working with an aquitard (impermeable layer on the top and bottom of the deposits). In this case we are creating an aquitard with a freeze wall on the sides and using pumping pressures to keep the lixiviant at depth at the ore body.

CM - *Has it gone sideways other places?*



DEN-No, I'm not aware of other ISR projects failing. There are pump and injection tests with groundwater to understand the deposit and where the water goes before introducing acid. It takes a lot of baby steps over many years. The Environmental Assessment (EA) focuses on what happens outside the freeze walls. That includes looking at what comes to the surface with the groundwater. We are more concerned about the freeze wall getting too big versus it not working. We will run it to see what happens if it came down. But what we are hearing is it's a 0% chance. The monitoring wells exist so everything can be tracked. You can also install pumps to draw anything out should something break down which allows us to flush the system. So, what we are planning is above and beyond what traditional ISR sites have for safety.

CM - *Although it hasn't been done here, I agree with this kind of mining. I feel it is a better method. The only thing is that our youth – is there training for the types of jobs that will be there? I like it*

#### **Brief overview of the Environmental Assessment Project**

Discussion of Valued Components – tabled for next meeting.

#### **Permits for the Geotechnical Drilling for the Project (summer 2021)**

Permit up to 48 small holes (won't do that many); small program over two weeks to test the ground conditions at Wheeler for the planning process related to the infrastructure (like the process plant, the airstrip, etc)

#### **Environmental and Cultural Monitor (Summer position)**

Would like the monitor to be part of the test this summer.

**Committee Member** would like the committee to meet at the site this summer if all is well.

**Denison** would like to include Chief and Council too in the site visit.

**Committee Member** would like to see that Denison team have vaccines before visiting community/camp or ERFN going to the site.

Would like to talk about decommissioning -not just underground but from on top too. What will the land look like? Will trees be back in the air strip?

**NEXT MEETING:** Include discussion about decommissioning process – surface and subsurface; include discussion about the studies recently conducted on ore body collapse and / or subsidence

#### **Next Meeting Date and Topics**

Set next meeting date – June 8, 2021 (1:30 to 3:30) via Zoom

Zoom Link: <https://us02web.zoom.us/j/81163352282?pwd=YUJUTkxvTE2S1JXeERnOFgxdjNKQT09>

Topics to discuss:

- Heritage management
- Access to site
- Decommissioning concepts

<b>Action Items</b>		
<b>Action</b>	<b>Responsibility</b>	<b>Timing</b>
Logo Contest for committee to engage community members	ERFN Communications [redacted]	May
Add committee description to website including pronunciation	ERFN Communications [redacted]	Beginning of May
Share name with community via FB post	ERFN [redacted]	Align with website – so post can direct people to the site for more information
Add all 19 reserve lands to project map	Denison	ASAP
Provide Denison vaccine policy to committee	Denison	Prior to summer camp/site visits
Align on agenda/topics for June 8 meeting	Denison to provide to ERFN for review	Mid May

**Meeting adjourned at 3:45 p.m.**



## Uranium Development & Exploration

### The Wheeler River Project

June 15, 2021 Nuhtsiye-kwi Benéne Committee (Ancestral Lands Committee)

## Cautionary Statements & References

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**Forward looking statements are based on the opinions and estimates of management as of the date such statements are made, and they are subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of Denison to be materially different from those expressed or implied by such forward-looking statements.** Denison faces certain risks, including the current and potential impacts of the COVID-19 pandemic, use of mining methods which are novel and untested in the Athabasca basin, the inability to permit or develop its projects as currently planned, the inability to secure sufficient financing to pursue its business objectives, the unpredictability of market prices, events that could materially increase costs, changes in the regulatory environment governing the project lands, and unanticipated claims against title and rights to the project. Denison believes that the expectations reflected in this forward-looking information are reasonable but there can be no assurance that such statements will prove to be accurate and may differ materially from those anticipated in this forward looking information. For a discussion in respect of risks and other factors that could influence forward-looking events, please refer to the "Risk Factors" in Denison's Annual Information Form dated March 13, 2020 available under its profile at [www.sedar.com](http://www.sedar.com) and its Form 40-F available at [www.sec.gov/edgar.shtml](http://www.sec.gov/edgar.shtml). These factors are not, and should not be construed as being exhaustive.

**Readers should not place undue reliance on forward-looking statements.** The forward-looking information contained in this presentation is expressly qualified by this cautionary statement. Any forward-looking information and the assumptions made with respect thereto speaks only as of February 8, 2021. Denison does not undertake any obligation to publicly update or revise any forward-looking information after such date to conform such information to actual results or to changes in its expectations except as otherwise required by applicable legislation.

**Cautionary Note to United States Investors Concerning Estimates of Mineral Resources and Mineral Reserves:** This presentation may use terms such as "measured", "indicated" and/or "inferred" mineral resources and "proven" or "probable" mineral reserves, which are terms defined with reference to the guidelines set out in the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") CIM Definition Standards on Mineral Resources and Mineral Reserves ("CIM Standards"). The Company's descriptions of its projects using CIM Standards may not be comparable to similar information made public by U.S. companies subject to the reporting and disclosure requirements under the United States federal securities laws and the rules and regulations thereunder.

#### Qualified Persons

The disclosure of a scientific or technical nature within this presentation, including the disclosure of mineral resources, mineral reserves, as well as the results of the Wheeler PFS and Waterbury PEA, was reviewed and approved by David Bronkhorst, P.Eng., who is a Qualified Person in accordance with the requirements of NI 43-101.

#### Technical Reports

- For further details regarding the Wheeler River project, please refer to (a) the Company's press releases dated December 1, 2020, regarding the adoption of the freeze wall design for ISR at Phoenix, and September 24, 2018, regarding the Prefeasibility Study, and (b) the technical report titled "*Prefeasibility Study for the Wheeler River Uranium Project, Saskatchewan, Canada*" with an effective date of September 24, 2018 ("Wheeler PFS").
- For further details regarding the Waterbury Lake project, please refer to the Company's press release dated November 17, 2020 and the technical report titled "*Preliminary Economic Assessment for the Tte Heldeth Tûé (J Zone) Deposit, Waterbury Lake Property, Northern Saskatchewan, Canada*" with an effective date of October 30, 2020. ("Waterbury PEA"). The Waterbury PEA is a preliminary analysis of the potential viability of the Project's mineral resources, and should not be considered the same as a Pre-Feasibility or Feasibility Study, as various factors are preliminary in nature. There is no certainty that the results from the PEA will be realized. Mineral resources are not mineral reserves and do not have demonstrated economic viability. Scheduled tonnes and grade do not represent an estimate of mineral reserves.

For a description of the data verification, assay procedures and the quality assurance program and quality control measures applied by Denison, please see Denison's Annual Information Form dated March 13, 2020. Copies of the foregoing are available on Denison's website and under its profile on SEDAR at [www.sedar.com](http://www.sedar.com) and on EDGAR at [www.sec.gov/edgar.shtml](http://www.sec.gov/edgar.shtml).



## Agenda

- **Prayer / Introductions**
- **Wheeler River Project**
  - Geotechnical drilling program (2021)
- **Update on Environmental & Cultural Monitor**
- **Site Access Considerations**
- **Surface Subsidence Assessment**
- **Linear Feature Reclamation Pilot Program**
- **Next Meeting Date and Topics**



## 2021 Geotechnical Drilling Program

**Action:** Denison sent ERFN the *draft* application for the permit for advanced review

**Location:** Wheeler River Project site

**Purpose of Activities:** Shallow drilling to understand the ground conditions in the area to advance infrastructure site design

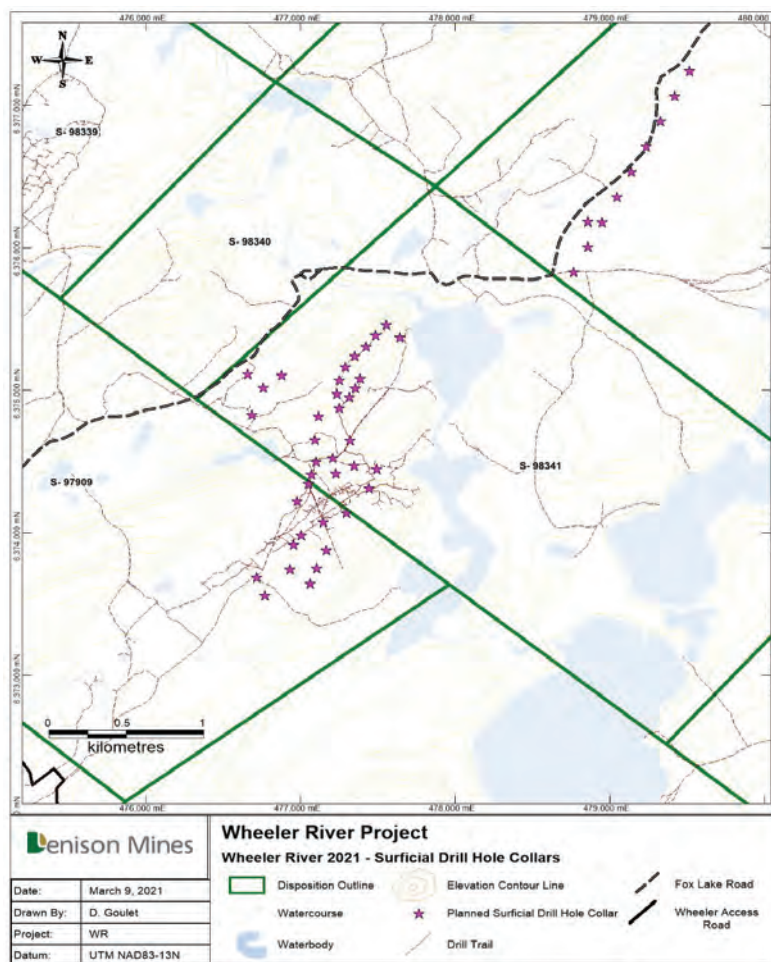
**Total Number of Drill Holes:** 48, ranging in depth from 3m to 15m; 50% of drilling is anticipated to occur in previously disturbed area; drill pads no to exceed 6m by 15m (significantly smaller than diamond drilling); no core recovered; completed holes to be back-filled unless monitoring of water levels occurs

**Proposed Timing:** 2 weeks, end of summer, early fall (should no other delays occur)

**Trail and Water Crossings:** Existing to be used wherever possible; approximately 2km may be required; no need to install new permanent water crossings

Example Truck-Mounted Drill Rig





## Environment & Cultural Monitor – Update



- Job Description – Advertised for May 5 to May 21
- 8 Applicants
- Denison and ERFN collectively reviewed the applicants information and selected Walter Janvier
- He happily accepted the offer
- Currently:
  - Working on a contract
  - Providing Walter with overview of exploration activities and associated requirements
  - Planning for his presence this summer at Wheeler and other sites

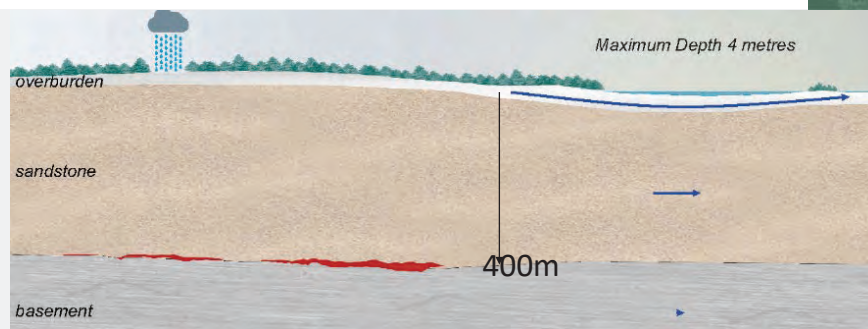




## Site Layout Considerations



## Decommissioning Planning and Approach: Considering Potential Surface Disturbance



For planning purposes, Denison wished to understand:

- 1) if there might be any potential surface subsidence (sinking) due to the removal of the uranium from the ore body and
- 2) The risk of mining cavity collapse during operations

Third party expert undertook this assessment:

- 1) The maximum potential surface subsidence would be 7.5cm (shorter than a pencil)
- 2) The risk of mining cavity collapse during operations is minimal

## Linear Feature Reclamation Pilot Program

- The Wheeler River Project falls within the Boreal Shield Region of Saskatchewan - for Saskatchewan woodland caribou planning this is the SK1 unit
- In 2018, Environment Canada (ECCC) indicated that total buffered anthropogenic disturbance should not exceed 5% and total disturbance (natural + buffered anthropogenic) should not exceed 40%
- The idea is that < than this = sustainable caribou populations



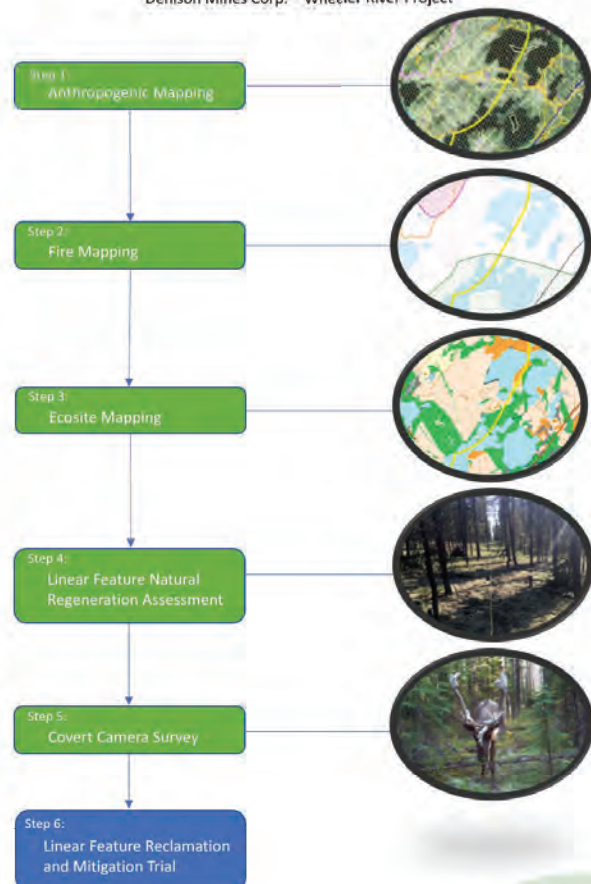
## Linear Feature Reclamation Pilot Program

The best guidance available for northern Saskatchewan (SK1) can be derived from the SK2 West Draft Range Plan, where five land management strategies have been outlined:

- avoidance
- reclamation/restoration
- mitigation offsets for new disturbances
- forest harvesting patterns
- access management

Several steps to the baseline data collection have brought us to this point.

Figure 1. Completed and Planned Baseline Surveys  
Denison Mines Corp. – Wheeler River Project





## Linear Feature Reclamation Pilot Program



Photograph 2.3-1 Area burned after line creation.



Photograph 2.3-2 Area burned before line creation.

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## Linear Feature Reclamation Pilot Program

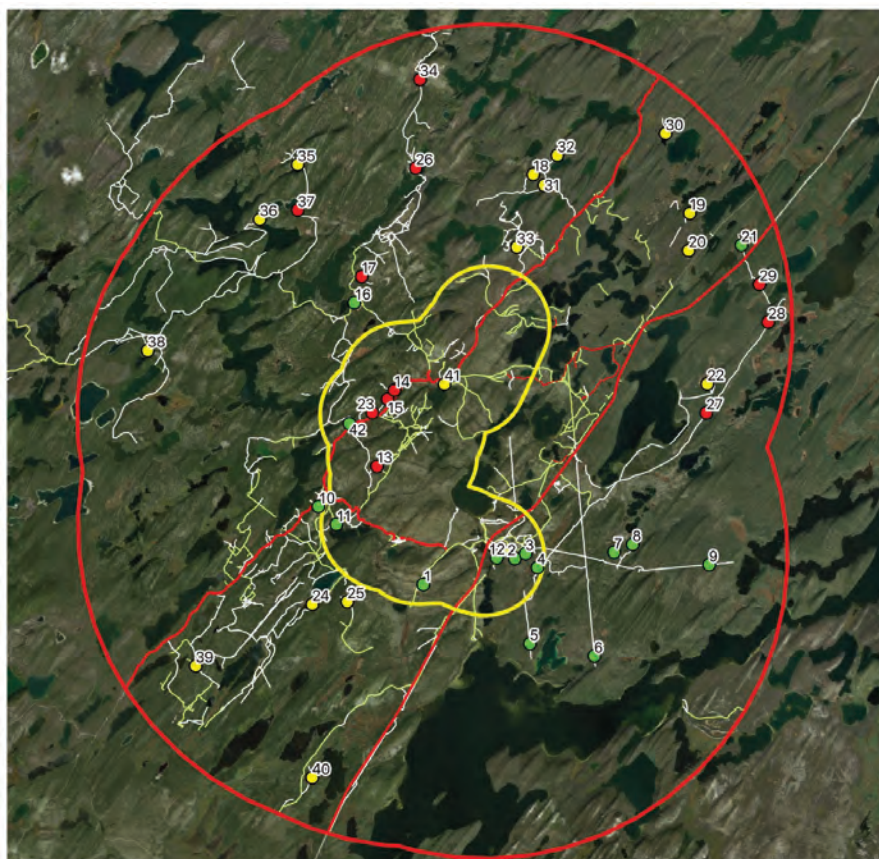
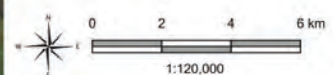


Figure 4. Assessed Candidate Sites for the Linear Feature Reclamation and Mitigation Trial. - Denison Wheeler River Project



April, 2021  
 Omnia Project # 2103-01  
 www.omniaeco.ca

**OMNIA**  
 ECOLOGICAL SERVICES

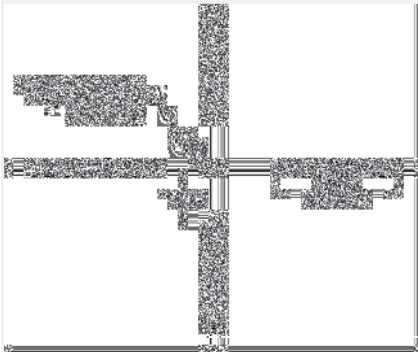
Linear Feature Reclamation Pilot Program



Suggested treatment types.			
Type	Treatment 1	Treatment 2	Treatment 3
Seeding/planting	✓	✓	✓
Coarse Woody Debris*	✓	✓	
Tree Tipping**	✓	✓	
Fencing		✓	✓
Mounding			✓

\* Ease of installation (i.e. lots of potential CWD), repeat methods proposed by Keim et al. 2019.

\*\* When tree buffer height to feature width ratio is > 0.5 (Jean 2017).





**Event:** Nuhtsiye-kwi Benéne Committee (Ancestral Lands Committee)

**Date:** June 15, 2021, 1:30pm to 3:30pm

**In attendance:** **Denison** Carolanne Inglis-McQuay, Janna Switzer, Xavier Lu Dac  
**Committee Members and Invited Guests** 12 attendees (ERFN, SVS, Omnia)

#### Introductions:

Elder prayer

**Committee Member:** proposed using the Dene name for the committee to avoid white-washing; get in habit of pronouncing it.

**Denison:** Agreed

#### Geotechnical Permit Conclusion

**Denison:** Reviewed the pending permit that was discussed last meeting. *It involves shallow drilling to better understand the nature of the ground conditions. 48 holes are planned to be completed for the end of summer. The permit will be filed towards the end of the week, so can expect to see it coming from the Ministry.*

**Committee Member:** Asked about the timeline.

**Denison:** The drilling program for this permit will be two weeks long at the end of summer or early fall.

A map was displayed.

**Committee Member:** Requested to have the reserve communities overlayed. She asked if this planned activity could it impact or disturb game – where we will be hunting during the cultural camp.

Janna clarified that this is right at the Wheeler River site where the work will be done. The camp is Kilometer 167, and the site is Kilometer 232. She also noted that the map is a small area, 5kms across.

**Committee Member:** Would like to see traditional lands areas included as well on the maps.

**SVS:** That will come out in the SVS work and that drafts will be coming out from [redacted].

#### Actions from Last Meeting

The ERFN reserves were laid over the map. This will be good to share with the community.

One video clip was filmed on the pronunciation – working through a few technical issues.

#### Update on Environmental and Cultural Monitor

Nine applications were received (one late); eight were reviewed. The committee landed on an individual to hire– this person has accepted the offer. Once everything is finalized it will be good to introduce the hired person's position publicly.

#### Site Access Considerations

Denison has several factors to be considered related to access to the Wheeler River site so wanted to present to the committee to get feedback and address questions and concerns.

- Fox Lake Road is the existing access road that comes out of the 914 highway – currently it is not in great shape. Denison is proposing straightening and extending it a little to access the airstrip.

It was explained that Denison would prefer to work with Cameco and not build this airstrip with two others being in the area. But right now, Denison must prepare the assessment with the airstrip going in. This means there is a need to re-establish the Fox Lake Road and upgrade it. Restrictions to access at the active well would occur for safety reasons only, as well as A restriction to the north end as well.

**Committee Member–** is there any area not in green that's restricted?

**Denison–** no, the green shows the industrial machinery. If they are in the area, we'd be happy to have them check in just to alert to areas of concern – especially in the winter.

**Committee Member-** there hasn't been a problem with the access set-up with Cameco, so I don't anticipate one with this. I know a few areas where there is a good hunting and berry picking. I don't go through the gate, I go via the old Fox Lake road – you wouldn't even know I was around there. I don't think there will be a problem.

**Denison:** given that these 2 bridges don't currently exist, do people use this segment of road?

**Committee Member -**we do, but we don't go further – we use that trail to Cree Lake. It goes right by a little cabin at Calhoun Lake. We go around that area – but we try to stay out of the old Fox Lake Road.

**Denison:** if these bridges go back in, which we would need to for the airstrip, would it be an opportunity or concern, or both for ERFN? We want to design to your interests and also for being safe. This won't be the only time we talk about it – but it's the point of the committee is that we can bring it to you early.

**Denison-** we can alter the gatehouse plans as needed.

**Denison:** you don't need to have the answers now, just something to keep in mind as we go.

#### Subsidence Study

**Denison:** said Denison wanted to make sure they responded to the concerns about surface disturbance due to activities underground. *Subsidence occurs when ground shifts due to activity underground. We've worked with third-party experts to help determine what is happening because what we are doing underground is quite different with our mining method. What we are taking out is quite minimal. Max amount of subsidence is 7.5 cms – shorter than a pencil. The third-party also found that the risk of mining cavity collapse is minimal. A graphic was shown as part of the presentation to illustrate what it would look like underground.*

**Committee Member** -thank you for that. It is a lot less of anthill maze than what we had envisioned.

#### Linear Feature Reclamation Pilot Program

**Denison:** introduced attendees from Omnia.

**Omnia:** Explained the government is guiding the planning to make sure caribou habitat is reclaimed.

Said Omnia's role in mapping was to understand the wildlife elements. Said it's known that disturbance to the environment is a determinant to cows and calves in particular. This includes natural disturbance and people-created influences. Environment Canada has provided some guidance for thresholds: disturbance, including buffers – should not exceed 5% of the area (anthropogenic), specific calving areas have not been incorporated

**Committee Member** – that might be something we'd like to see added, we've done some of that work – there is a little pocket that is for calving specifically. Even though you are following the guidelines, we'd like to see the pocket included – so, there's less disturbance in that particular area. Always better to go beyond the standard.

**Omnia**- calving is important part of the life cycle as is strong access to lichen etc. in the winter.

**Committee Member** – I'd like to see something a little more tailored to the area and review the maps developed with MLTC, ERFN and the government.

**Committee Member** -There is a calving pocket in there.

**Omnia**- that information would be helpful. And what you will see in the next slide is a test pilot program aimed at mitigating any negative impacts. That information could guide us and help us target areas.

**Denison**: this likely won't be in the EA – but it is happening in parallel, as early work, pre-licensing.

**Committee Member** - as long as work doesn't happen, before this work is done.

**Denison**: we want to have that information for sure, I am just wanted to be clear you might not see the results in the EA because the work will continue over the next couple of years.

**SVS**- we will go back and look, and we will be asking these questions in the land use study too to support this work.

**Omnia**: moved to the next study and explained it as a refining of the province's work around fire mapping. Said they are trying to understand how the wolves, bears and caribou are using the land features and different habitats to help set up the mitigation trial – trying to "fix" the landscape to support caribou population – i.e., avoid what you can that's important to caribou, adapting footprint, and customizing reclamation. **Omnia**: Not all areas need help – but [redacted] said they will look at areas with the best aspects without blocking areas for travel. Block one line, monitor the other in terms finding a balance. Plan to implement mitigation and monitor by using cameras to see how well the features are working. We want to discourage predators from using the features to restore the balance – studies show that wolves travel 2-3X faster on trails.

**Committee Member** - how long does the lichen grow back post fire?

**Omnia**: We found that a lot of the regrowth happens quite early – very slow in the first ten years, then really fast, peaking at about 25 years until the blanket of pine trees get denser making for less lichen. After 70,80,90 years you are back to full thick lichen map. This can take 100 years.

**Committee Member** - Elders said after natural disasters it could take 35 years. This land that Denison is on is pretty burnt except for some patches that are areas for caribou. The moose are coming back slowly. Would be easier to see the habitats marked on a map to play it safe. We can keep it simpler than what you are proposing.

**Omnia**: it will have to coincide with the ore. Historically there have been a lot of fire, but there has always been caribou. We found they still do use burned areas, sometimes they will access muskeg or fingers of land that were missed. They come in and pick the residual areas – and this is even in very recent burns, like a year later. They must be somewhat adapted. But as soon as we put a road in etc., that changes the balance. I'm just saying I'm not sure how bad the fire is for caribou.

**Denison**: Have you noticed certain areas the caribou are using?

**Committee Member** - I've seen a couple in the patches not burned.

**Denison**: The lines that are cut, that essentially make a highway for the wolves to chase down caribou, has that been a concern?

**Committee Member** - We hunt around that Brown Lake area – we have seen wolf tracks but there is caribou there because of the green areas. We haven't been concerned about the wolves. Moose is more our mainstay.

**Committee Member** - That's what we have in our freezer. Moose has the same concern and affect for ERFN – not just the government protected caribou. We want to know how moose would be impacted.

**Omnia** - part of our baseline studies took pictures of all wildlife. So, we have a baseline of which animals are using the trails and how much compared to each other. Now want to block some of the trails to monitor results. The results will let us know how bears, wolves, caribou, and moose are reacting. Predators can travel more ground – so it increases their odds of them coming across something – moose or caribou.

**Omnia** – We will see the effect on moose, but the study is still on caribou. (Showing on map – sites visited.) Green – ones they could access Yellow-not accessed, Red-not suitable. Have 12-13 good sites they can set up in. Have tried to evaluate the best approach given the area – dragging deadfall in to block lines, tree tipping next to line, biodegradable fence (burlap) – more of visual barrier than physical, and if close to the mine site could do some pitting to make it hard to access the area.

Seeding or planting is last on the list to form a longer-term natural barrier. The intention is to be practical, something that can be done by hand. The expectation will be if you disturb you will have to mitigate. This is a very local, small sample sites to see what works first before being employed on a larger scale.

**Denison**: Can you speak about your conversation with ERFN member.

**Omnia**- We don't want to cause conflict with people. We are biologists and we sometimes get buried in that and we don't want to block someone like ERFN member, so we sat down and talked. ERFN member helped sketch out people's trapping areas, cabins, etc. The why, where, and where not to.

**Denison**: This is the science side – but we want to capture more Elder and land user information too – we want to combine it all into something that really works.

**Omnia** exited the line



## Denison Mines

### Uranium Development & Exploration The Wheeler River Project

June, 2021 English River First Nation / Shared Value Solution

## Denison's Guiding Principles

- Denison recognizes and is deeply respectful of the fact the that Wheeler River project is located within the boundaries of **Treaty 10**, and is in the heart of the **traditional territory of the English River First Nation**, and in the **homeland of the Métis of Saskatchewan**
- Denison understands the importance of **protecting the area** in which we are working

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## Denison Team

- Dave Bronkhorst, VP Operations
- Janna Switzer, Environment Manager
- Chad Sorba, Technical Manager
- Carolanne Inglis-McQuay, CSR Manager
- Xavier Lu Dac, Senior Engineer
- Dana Harris, Project Services Coordinator
- Mike Dawe, Environment and CSR Coordinator
- Jenn Skilnick, Environment Coordinator



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**Qualified Person:** The disclosure of a scientific or technical nature within this presentation, including the disclosure of mineral resources, mineral reserves, as well as the results of the Wheeler PFS and Waterbury PFA, was reviewed and approved by David Bronkhorst, P.Eng., who is a Qualified Person in accordance with the requirements of NI 43-101.

**Technical Reports:** For further details regarding the Wheeler River project, please refer to (a) the Company's press releases dated December 1, 2020, regarding the adoption of the freeze wall design for ISR at Phoenix; and September 24, 2018, regarding the Pre-Feasibility Study; and (b) the technical report titled "Pre-Feasibility Study for the Wheeler River Uranium Project, Saskatchewan, Canada" with an effective date of September 24, 2018 ("Wheeler PFS").

For further details regarding the Waterbury Lake project, please refer to the Company's press release dated November 17, 2020 and the technical report titled "Preliminary Economic Assessment for the Tibeitah Tail (J) Zone Deposit, Waterbury Lake Property, Northern Saskatchewan, Canada" with an effective date of October 30, 2020 ("Waterbury PEA"). The Waterbury PEA is a preliminary analysis of the potential viability of the Project's mineral resources, and should not be considered the same as a Pre-Feasibility or Feasibility Study, as various factors are preliminary in nature. There is no certainty that the results from the PEA will be realized. Mineral resources are not mineral reserves and do not have demonstrated economic viability. Scheduled tonnes and grade do not represent an estimate of mineral reserves.

For a description of the data verification, assay procedures and the quality assurance program and quality control measures applied by Denison, please see Denison's Annual Information Form dated March 13, 2020. Copies of the foregoing are available on Denison's website and under its profile on SEDAR at [www.sedar.com](http://www.sedar.com) and on EDGAR at [www.sedg.gov/edgar.shtml](http://www.sedg.gov/edgar.shtml).

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### Company Overview:

*Denison is focused on opportunities in northern Saskatchewan*

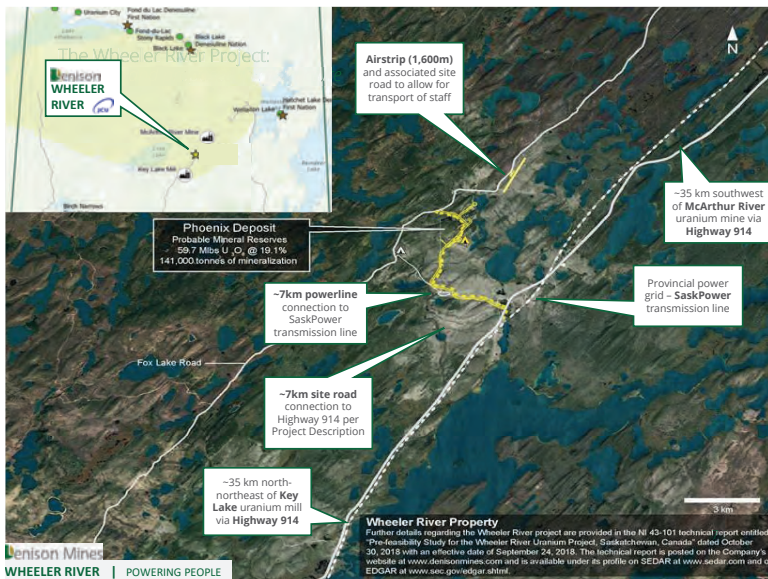
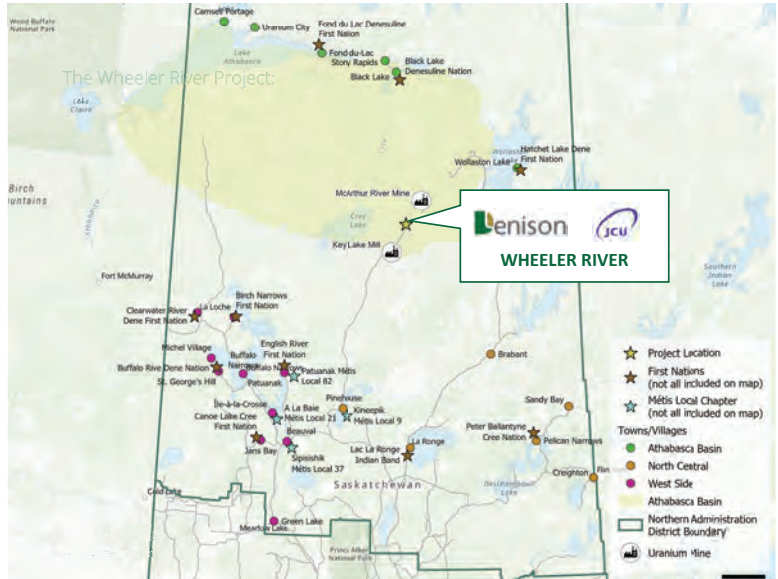
- 22.5% interest in **McClean Lake Uranium Mill**
- 90% interest in Flagship **Wheeler River** project
  - Advancing through development process
  - Largest undeveloped uranium project in the infrastructure rich eastern Athabasca Basin
  - Environmental Assessment ("EA") initiated
  - Progressive approach to mining using In Situ Recovery ("ISR") method
- 66.9% in the **Waterbury Lake Property**, hosting the Tłı̨h Haldeth Tłı̨é (formerly J Zone) deposit
  - Recently completed Preliminary Economic Assessment ("PEA")
  - Amenable to ISR mining method
- Several other interests in the Athabasca Basin region
  - **McClean Lake, Midwest, and Waterbury Lake** properties, all in close proximity to McClean mill
  - +250,000 hectares of exploration ground

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NOTES: (1) See Denison's news release dated Nov. 11, 2020. The PEA is a preliminary analysis and should not be considered the same as a Pre-Feasibility or Feasibility Study. See Cautionary Statements slide for details.



ISR field testing at Wheeler River Phoenix Deposit, Summer 2019



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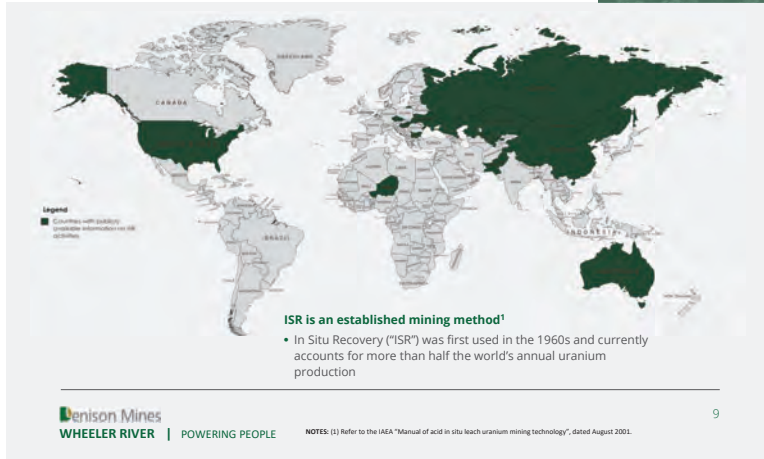
NOTES: Phoenix Site Layout (Rev. 04-2020)  
Source: Wheeler River Internal Records  
Subject to Environmental Assessment and Company Approval



## In Situ Recovery ("ISR") Mining:

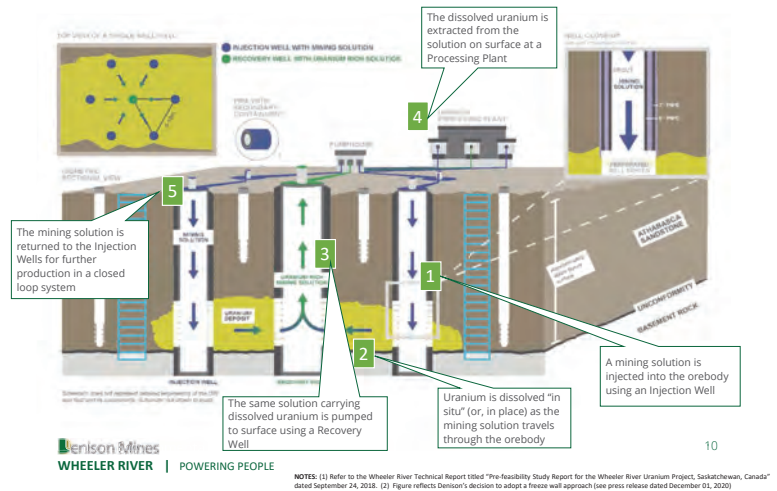
*Introducing a proven mining technique to the Athabasca Basin*

## Key Components for the Project



## In Situ Recovery ("ISR") Mining<sup>1</sup>:

*Introducing a proven mining technique to the Athabasca Basin*



## ISR Mining:

*A progressive approach to uranium mining in the Athabasca Basin*

### How is ISR Different?<sup>1</sup>

- All activities occur at surface; there are no traditional underground workings
- The ISR mining area has only wells and pipes to plant; no open pits, head-frame, or major earthworks
- There is no tailings production or long-term tailings storage, plus no large waste rock piles

### Waste Management Vision

- Two main waste streams expected:
  - Gypsum (non-radioactive) – remediated on site
  - Radium/Iron precipitates (radioactive) – removed from surface
- No long term waste management expected to be required after mine closure

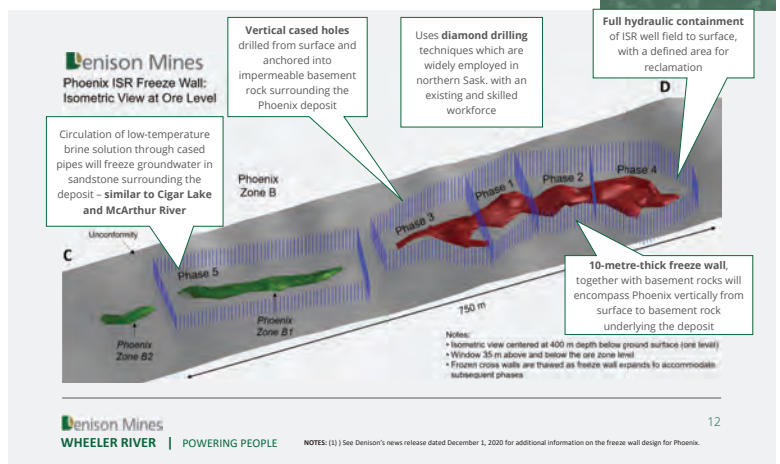
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## Freeze Containment:

*Established method to create frozen barrier around mining area<sup>1</sup>*

## Key Components for the Project





## Denison 2021 Phoenix



### Athabasca Basin Ground Water Modelling: *Ground water at depth stays at depth<sup>1</sup>*

### Key Components for the Project



- ✓ The ore body (i.e. Phoenix) is more than 400 metres below the surface / lakes and river systems
- ✓ Groundwater in the sandstone around the ore body **is not directly** connected to surface water bodies
- ✓ Field testing in 2019 and 2020, as well as detailed hydrogeologic modelling shows that ground water stays at depth – it doesn't move upward towards surface, and only moves laterally (at a very slow rate) at the depth of the ore body
- ✓ The freeze wall / fence is the ultimate contingency method to contain mining solution within mining area

### Wheeler River / Phoenix ISR: *Different mining method and a different type of operation<sup>1</sup>*

### Key Components for the Project



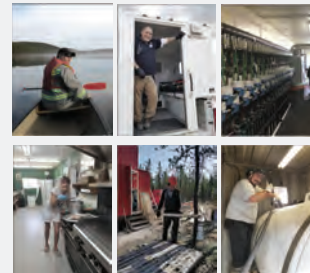
#### Advantages of ISR mining compared to existing uranium mining in Canada:

- ✓ Small surface footprint
- ✓ Lower water consumption
- ✓ Lower energy consumption
- ✓ Lower CO<sub>2</sub> emissions
- ✓ Small volume treated effluent released to surface water bodies
- ✓ Potential for lower radiation doses to workers
- ✓ No tailings production; storage of precipitated by-products
- ✓ Very small volumes of clean waste rock (sandstone core from wellfield development)

### Socio-economic Considerations:

*Relatively small operation with opportunity to use existing skills*

### Key Components for the Project



#### Denison is committed to maximizing opportunities

- Up to **300 jobs during ~2 years of construction**
- Approximately **100 jobs during operation for 10 years**
- Targeted efforts to **Communities of Interest**, with a broad focus on northern Saskatchewan and Indigenous communities
- **Similar job types** to those at existing uranium operations
  - Trades, surface, environment, radiation, safety, camp, security
  - ISR operators are similar to process operators (training can be done in Meadow Lake)
- **Specific ISR training will be provided**
- Pre-requisite training will include **diploma or technical certification available in Saskatchewan**. Examples:
  - Process Operation Technician (SIIT in Meadow Lake)
  - Chemical Technology (Sask. Polytechnic)
- Construction and operation activities targeted to **Northern Saskatchewan / Indigenous-owned businesses**

# *Wheeler River Project*

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*Economy*

*Land and Resource Use*

*Quality of Life*

June 30, 2021



## **Wheeler River Project** *Study Areas*

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- **Project Area:** the area within which the Project and all components/activities are located (i.e., the Project footprint; the area of maximum physical disturbance). This area is not VC-specific, but consistent throughout the EA for all VCs.
- **Local Study Area:** the area that surrounds the Project Area where both direct and indirect effects resulting from Project activities can be reasonably measured. The LSA is established to assess the potential, largely direct effects of the Project and represents the extent to which there is a reasonable potential for the Project or Project-related activities to interact with and potentially adversely effect the VC.
- **Regional Study Area:** the area that surrounds and includes the LSA, established to assess the potential, largely indirect effects of the Project 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).



## Wheeler River Project

### Scoping of Studies

#### *Consideration of future project interactions:*

- Changes to the biophysical environment associated with project activities (e.g., changes to vegetation, wildlife, water quality or quantity);
- Changes associated with participation in a fly-in/out commuter rotation system;
- Changes associated with project employment and contracting (e.g., changes to the local labour force, income levels, opportunities for training);
- Changes associated with project-related investments or other commitments to communities; and
- Project-related traffic.



## Wheeler River Project

<b>Economics</b>		
VC	Rationale	Linkages to other VCs
Economy	The Project may affect current income levels and/or revenues to the local and provincial economies. The Project may affect current employment, training, and educational opportunities. The Project may affect current business levels and opportunities that would affect local communities and potentially provincial market sectors.	Indigenous Land and Resource Use Other Land and Resource Use Transportation Infrastructure and Services Community Well-being Human Health and Safety





## Wheeler River Project

<b>Land and Resource Use</b>		
VC	Rationale	Linkages to other VCs
Indigenous Land and Resource Use	Project activities may result in a real or perceived change of the natural landscape which may affect how the area in proximity to the Project is used for current traditional land use and resource use by Indigenous people.	Fish Habitat Fish Health Aquatic Habitat Wetlands Vegetation and Ecosystems Plant Species at Risk Ungulates Furbearers Woodland Caribou Small Mammals Raptors Migratory Breeding Birds Bird Species at Risk Community Well-being Human Health and Safety
Other Land and Resource Use	Project activities may result in a real or perceived change of the natural landscape which may affect additional resource uses, such as tourism, guided outfitting, protected areas, mining, and forestry. Navigation could be altered as a result of the Project.	
Heritage Resources	Project activities may result in a real or perceived change of the natural landscape which may affect how the area in proximity to the Project is used for current traditional land use and resource use by Indigenous people.	



## Wheeler River Project

<b>Quality of Life</b>		
VC	Rationales	Linkages to other VCs
Community Infrastructure and Services	Project activities may affect demands on local infrastructure (e.g., roads/highways) and services.	Economy Indigenous Land and Resource Use Other Land and Resource Use
Community Well-being	Project activities may affect changes in community cohesion and population demographics.	



## Wheeler River Project

### *Valued Components*

Category	Valued Component	Key Indicator
Economic	<ul style="list-style-type: none"> <li>Economy</li> </ul>	Income Government Revenues Employment and Training Business Opportunities
Land and Resource Use	<ul style="list-style-type: none"> <li>Indigenous Land and Resource Use</li> </ul>	Resource availability Land availability Perceived suitability
	<ul style="list-style-type: none"> <li>Other Land and</li> <li>Resource Use</li> </ul>	Resource availability Land availability Perceived suitability
Quality of Life	<ul style="list-style-type: none"> <li>Community Infrastructure and Services (including traffic)</li> <li>Community Well-being</li> </ul>	Community Infrastructure and Services Community Well-being

## Meeting with Intergroup / Shared Value Solutions

June 30<sup>th</sup>, 2021

- Presentation on Project Scope by Denison
- Presentation by Intergroup on Socioeconomic Valued Components

### Attendees

**Denison:** Carolanne Inglis-McQuay, Janna Switzer, Chad Sorba

**Intergroup(IG):** 3 attendees

**Shared Value Solutions(SVS):** 2 attendees

**English River First Nation(ERFN):** 1 attendee

### Dialogue

**SVS-** Any differences on spills for ISR relative different from other standard mining operations?

**Response-** Spill monitoring points at the connection points. Spill assessment will be determined on the effects assessment - developed in response to what the EA shows. Four layers of containment. Monitoring wells outside can also pump to surface

**SVS-** Turbo prop or Jet aircraft and proposed fuel storage?

**Response-** Just like Key Lake

### Intergroup Presentation

**SVS-** Looking at the interactions from all communities and reflecting Indigenous perspective?

**Response:** Yes, on a community-by-community basis.

**SVS-** Perceived use of land? What do you mean by this?

**Response:** Perception vs actual scientific data

**ERFN-** Profile information - could be included into economic assessment. Can you integrate Indigenous land use into economic assessment? Find a value to put this into income? Fit within?

**Response:** Traditional economy could be included into the regular economic section. Integration into EIS; add this as a Valued Component. IG to connect with SVS on this.

**SVS-** Can we review the supporting information that is being used by Intergroup? Community Vitality studies?

**Response:** Yes

**SVS-** Gender-based analysis at this point?

**Response:** Not from a methodological perspective, but do understand that different workers feel things differently





## Birch Narrows Dene Nation

General Delivery  
Turnor Lake, SK  
S0M 3E0

May 10, 2021

Marcelle Phaneuf  
Environmental Assessment Officer, Environmental Assessment Division  
Canadian Nuclear Safety Commission  
[marcelle.phaneuf@canada.ca](mailto:marcelle.phaneuf@canada.ca)

### **Re: Denison Mines Wheeler River Project**

Dear Ms. Phaneuf:

I am writing on behalf of Birch Narrows Dene Nation (BNDN) regarding the proposed Wheeler River Project (the Project) by Denison Mines (Denison). Since the Project falls within our Traditional Territory, BNDN must be meaningfully consulted and accommodated by the Crown and Denison. BNDN has concerns related to environmental, cultural, and socioeconomic impacts associated with the Project. BNDN is interested in engaging with the Crown in the Environmental Assessment (EA) and licensing process under the Nuclear Safety and Control Act (NSCA) for the Wheeler River Project. This will help us to understand the potential impacts of the Project and work to mitigate those impacts with Denison and the Crown.

Our ancestors have lived on our Traditional Territory since time immemorial; there are cultural sites and artifacts left throughout the region that are significant for our members. Our community continues to hunt, fish, gather and trap on the lands throughout our Traditional Territory where the impacts of this Project will occur. Any direct or cumulative impacts from this Project could negatively affect our ability to exercise Aboriginal and Treaty rights, including the livelihoods of those who live off the land. We wish to participate in the regulatory process to gain an understanding of how we can be involved in the process so that meaningful consultation and accommodation can occur.

Our first priority is to make sure that this Project will not adversely impact the environment or our rights. BNDN has recently developed a Consultation Protocol which outlines the steps required for the Crown and proponents to engage with BNDN. This document will be shared with CNSC and Denison in the coming months. CNSC and Denison will need to work with BNDN to develop a Consultation Process Agreement so the terms for consultation are clear for all parties. In order to facilitate our meaningful participation in the regulatory process it is critical that BNDN be provided resources to support BNDN's ability to participate, gather traditional knowledge and land use data, and review technical documents. This work should occur as early as possible so that mitigation and accommodation strategies can be considered during the EA process to protect culturally or ecologically sensitive sites.

Based on the level of detail included in the Project Description it is not possible to fully evaluate BNDN's concerns or the degree of potential impacts associated with the Project. Based on a preliminary review of Denison's Project, we would like to highlight the following areas of interest to BNDN:

- Impacts to surface water quality/quantity from effluent release and water taking
- Impacts to groundwater quality
- Hazardous waste storage on-site
- Impacts to wildlife and wildlife habitat from construction and operations, caribou in particular are at risk from loss of habitat and disturbance
- Impacts to fish and fish habitat
- Impacts to vegetation and wetlands, including overprinting
- Increased air contaminant emissions including greenhouse gases from Project-related infrastructure (e.g., mill, power generating equipment and vehicles)
- Impacts to Aboriginal and Treaty rights
  - Exclusion of BNDN members from the Project site
  - Avoidance of the Project site from BNDN members due to disturbance and fears
  - Impacts on hunting, trapping and gathering and the availability of traditionally important species
  - Impacts to Aboriginal fisheries associated with changes to the existing aquatic ecosystem including potential disruption of spawning sites
- Cumulative effects associated with the construction of a processing facility and the potential to accept material from other deposits or companies
- Ensure adequate consideration of BNDN Indigenous Knowledge and Traditional Ecological Knowledge
- Ensure that Denison provides business and procurement opportunities to BNDN members and businesses
- Ensure that training and employment opportunities for BNDN members are available and accessible
- Ensure adequate consideration of socioeconomic effects related to the Project that may impact BNDN (e.g., work camp, temporary workers, increased traffic, etc.)

We will be submitting a participant funding program application to support our involvement in the EA and NSCA licensing processes. Thank you for your time and the opportunity to participate, we look forward to your response. Please include Eric Sylvestre and Vern Bachiu on all communications related to this file. Note that we are including Denison Mines in this communication.

Respectfully,



Chief Jonathon Sylvestre

cc:

Eric Sylvestre, [eric.sylvestre@birchnarrows.ca](mailto:eric.sylvestre@birchnarrows.ca)

Vern Bachiu [vern.bachiu@triallconsulting.com](mailto:vern.bachiu@triallconsulting.com)

Carolanne Inglis-McQuay [cinglismcquay@denisonmines.com](mailto:cinglismcquay@denisonmines.com)

May 19, 2021

Chief Jonathon Sylvestre  
Birch Narrow Dene Nation  
General Delivery  
Turnor Lake, SK S0M 3E0

Sent via email: [chief1@birchnarrows.ca](mailto:chief1@birchnarrows.ca)

**Re: Birch Narrows First Nation Correspondence to Canadian Nuclear Safety Commission (May 10, 2021)**

Dear Chief Sylvestre:

Denison Mines Corp. ("Denison") is in receipt of the copy of your letter sent to the Canadian Nuclear Safety Commission ("CNSC") expressing Birch Narrow Dene Nation's (BNDN) interest in the Wheeler River Project ("the Project").

Denison has been working on the Project and in the area since 2005 and has worked hard to understand the Aboriginal and / or Treaty rights and interests currently being exercised in the local and regional study area by various Indigenous communities, with the goal being to design the Project in such a manner that the potential for adverse impacts to Aboriginal and / or Treaty rights is minimized. Denison originally reached out to BNDN on December 16, 2019 notifying BNDN of the Project's development, including the status of the Project in relation to the environmental assessment process with CNSC and the Province of Saskatchewan. In March 2020 Denison notified BNDN of the temporary suspension of the Project's environmental assessment owing to the global crisis caused by the COVID-19 pandemic, and more recently on January 20, 2021, we advised BNDN of the formal restart of the environmental assessment process for the Project.

As expressed in previous correspondence, Denison remains interested in meeting with you and your leadership team to provide an overview of the Project, in order to better understand your interests in relation to the Project, and more specifically, whether or not there is the potential for the Project to cause adverse impacts to BNDN Aboriginal and / or Treaty rights. Given the continued challenges and concerns related to COVID-19, Denison would be pleased to meet with you virtually, provided this is an appropriate mechanism that works for your community. If this is of interest, please don't hesitate to contact me by phone (306-716-6986) or by email ([cinglismcquay@denisonmines.com](mailto:cinglismcquay@denisonmines.com)).

Sincerely,

Carolanne Inglis-McQuay  
Corporate Social Responsibility Manager

Cc: Vern Bachiu: Triall Consulting  
Eric Sylvestre:  
Marcelle Phaneuf: CNSC



**Event:** Phone Call Discussion between ERFN Trapper and Denison

**Date:** June 4, 2021

**Notes:**

Denison provided ERFN Trapper with an overview of the trail mitigation trial program.

ERFN Trapper provided feedback that was positive overall.

**ERFN Trapper Comments:**

*"...know wolves like to use the lines to hunt caribou. This is concerning because the wolves are becoming a problem. [I] would like to see the wolf numbers reduced"*

*"Any treatment would have to be fairy tall because caribou can jump high."*

*"The number of cutlines in the area (all the way to Cree Lake) is extensive and [I] would like to see more reclaimed."*

**Event:** Site Visit with ERFN Trapper and ERFN Environment/Cultural Monitor

**Date:** August 18, 2021

**Notes:**

Denison received feedback from ERFN Trapper and ERFN Monitory relating to the linear feature restoration trial.

- Mounding Trial
  - Dislikes because of the appearance and because of destruction / movement of earth by machinery.
  - Thinks wolves and caribou will be able to get over them.
  - Suggests one or two big mounds at the entrance of linear features and the planting of trees.
  - Thinks wolves would be dissuaded from using mounds during winter.
  - Interested in trial results.
- Burlap Trial
  - Thinks a better trial area would have a longer line of sight.

## Denison Mines

### Uranium Development & Exploration The Wheeler River Project

September, 2021 Leadership Presentation

## Agenda

- Opening
- Wheeler River Project Overview
- Environmental Assessment Process
- Valued Components

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2

## Denison's Guiding Principles

- Denison recognizes and is deeply respectful of the fact that the Wheeler River project is located within the boundaries of **Treaty 10**, and is in the heart of the **traditional territory of the English River First Nation**, in the **Traditional Territory of the Athabasca Dene**, and in the **homeland of the Métis of Saskatchewan**
- Denison has the utmost **respect** for Indigenous communities, Indigenous Rights, and Indigenous knowledge
- We wish to **share the land** and to work in partnership
- Denison understands the importance of **protecting the area** in which we are working



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### Technical Reports

- For further details regarding the Wheeler River project, please refer to (a) the Company's press releases dated December 1, 2020, regarding the adoption of the freeze wall design for SR at Phoenix, and September 24, 2018, regarding the Pre-Feasibility Study, and (b) the technical report titled "Pre-Feasibility Study for the Wheeler River Uranium Project, Saskatchewan, Canada" with an effective date of September 24, 2018 ("Wheeler PFS").

- For further details regarding the Waterbury Lake project, please refer to the Company's press release dated November 17, 2020 and the technical report titled "Preliminary Economic Assessment for the Heidelet Tui (J Zone) Deposit, Waterbury Lake Property, Northern Saskatchewan, Canada" with an effective date of October 30, 2020 ("Waterbury PEA"). The Waterbury PEA is a preliminary analysis of the potential viability of the Project's mineral resources, and should not be considered the same as a Pre-Feasibility or Feasibility Study, as various factors are preliminary in nature. There is no certainty that the results from the PEA will be realized. Mineral resources are not mineral reserves and do not have demonstrated economic viability. Scheduled tonnes and grade do not represent an estimate of mineral reserves.

For a description of the data verification, assay procedures and the quality assurance program and quality control measures applied by Denison, please see Denison's Annual Information Form dated March 13, 2020. Copies of the foregoing are available on Denison's website and under its profile on SEDAR at [www.sedar.com](http://www.sedar.com) and on EDGAR at [www.sedar.com/edgar.shtml](http://www.sedar.com/edgar.shtml).

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## Denison Team

- Dave Bronkhorst, VP Operations
- Janna Switzer, Environment Manager
- Chad Sorba, Technical Manager
- Carolanne Inglis-McQuay, CSR Manager
- Xavier Lu Dac, Senior Engineer
- Dana Harris, Senior Project Coordinator
- Mike Dawe, Environment and CSR Coordinator
- Jenn Skilnick, Environment Coordinator



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## Company Overview: Denison is focused on opportunities in northern Saskatchewan

- 22.5% interest in **McClean Lake Uranium Mill**
- An effective 95% interest in Flagship **Wheeler River** project

- Advancing through development process
- Largest undeveloped uranium project in the infrastructure rich eastern Athabasca Basin
- Environmental Assessment ("EA") initiated
- Progressive approach to mining using In Situ Recovery ("ISR") method

- 66.9% in the **Waterbury Lake Property**, hosting the **Thie Heidelet Tui** (formerly J Zone) deposit
- Recently completed Preliminary Economic Assessment ("PEA")
- Amenable to ISR mining method
- Several other interests in the Athabasca Basin region

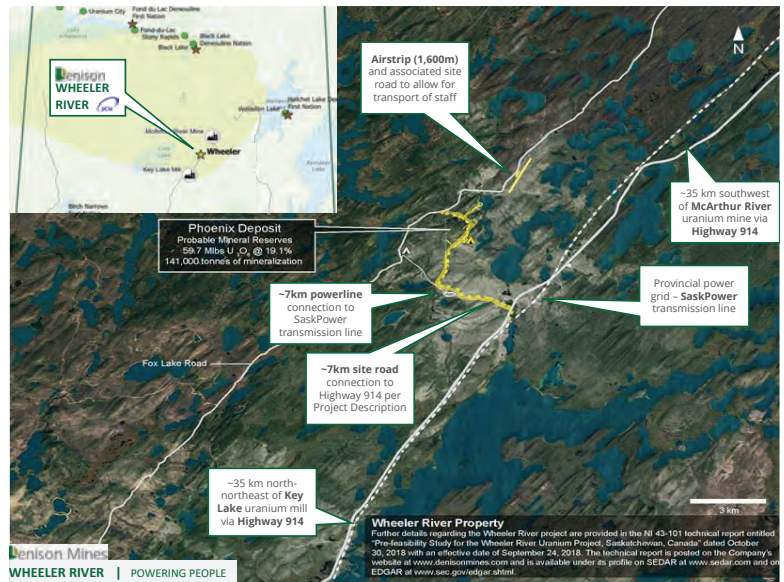
- **McClean Lake, Midwest, and Waterbury Lake** properties, all in close proximity to McClean mill
- **+250,000 hectares** of exploration ground

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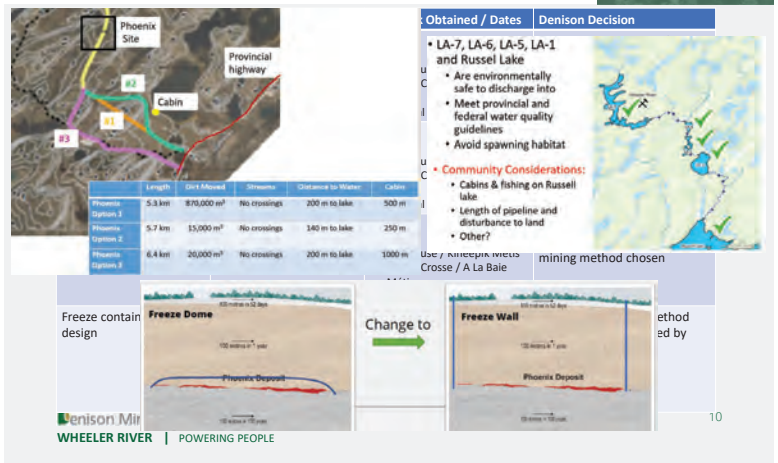
NOTES: (1) See Denison's news release dated Nov. 17, 2020. The PEA is a preliminary analysis and should not be considered the same as a Pre-Feasibility or Feasibility Study, see Cautionary Statements slide for details.





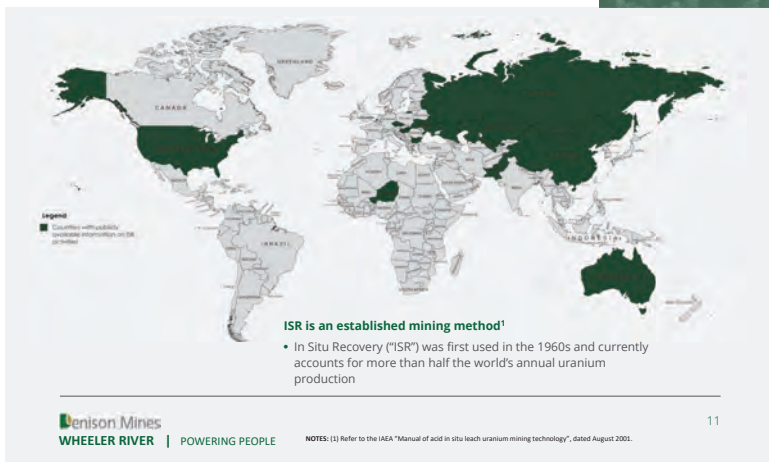


## Alternatives Assessments for the Project: Adapting over the years

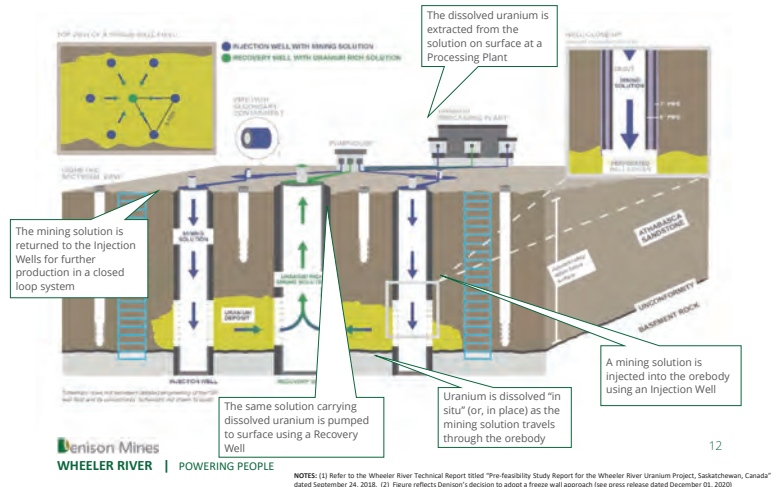


## In Situ Recovery ("ISR") Mining: Introducing a proven mining technique to the Athabasca Basin

## Key Components for the Project



## In Situ Recovery ("ISR") Mining: Introducing a proven mining technique to the Athabasca Basin





## ISR Mining:

A progressive approach to uranium mining in the Athabasca Basin

### How is ISR Different?¹

- All activities occur at surface; there are no traditional underground workings
- The ISR mining area has only wells and pipes to plant; no open pits, head-frame, or major earthworks
- There is no tailings production or long-term tailings storage, plus no large waste rock piles

### Waste Management Vision

- Two main waste streams expected:
  - Gypsum (non-radioactive) – remediated on site
  - Radium/Iron precipitates (radioactive) – removed from surface
- No long term waste management expected to be required after mine closure

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Summer 2019 ISR Field Program  
Overpack drums in yellow

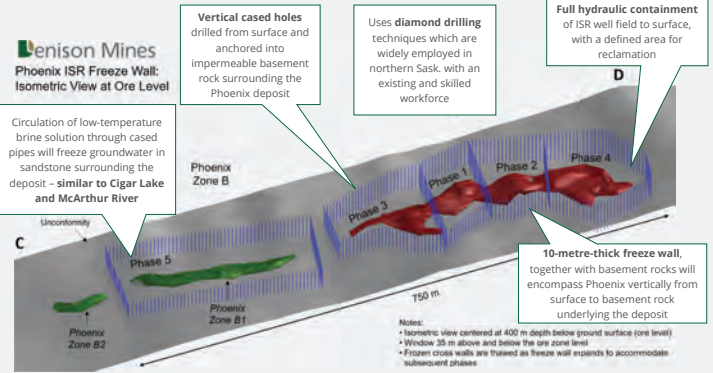


NOTES: (1) Refer to the IAEA "Advanced uranium recovery technology" dated August 2008.

## Freeze Containment :

Established method to create frozen barrier around mining area¹

## Key Components for the Project



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NOTES: (1) See Denison's news release dated December 1, 2020 for additional information on the freeze wall design for Phoenix.

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## Denison 2021 Phoenix

## Athabasca Basin Ground Water Modelling:

Ground water at depth stays at depth¹

## Key Components for the Project



- ✓ The ore body (i.e. Phoenix) is more than 400 metres below the surface / lakes and river systems
- ✓ Groundwater in the sandstone around the ore body is not directly connected to surface water bodies
- ✓ Field testing in 2019 and 2020, as well as detailed hydrogeologic modelling shows that ground water stays at depth – it doesn't move upward towards surface, and only moves laterally (at a very slow rate) at the depth of the ore body
- ✓ The freeze wall / fence is the ultimate contingency method to contain mining solution within mining area

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NOTES: (1) See Denison's news release from June 4, 2020 for details.

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## Wheeler River / Phoenix ISR:

Different mining method and a different type of operation¹

## Key Components for the Project



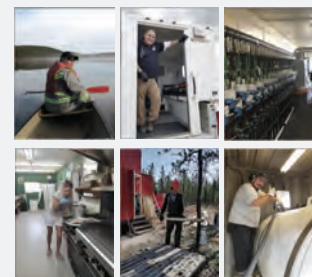
### Advantages of ISR mining compared to existing uranium mining in Canada:

- ✓ Small surface footprint
- ✓ Lower water consumption
- ✓ Lower energy consumption
- ✓ Lower CO<sub>2</sub> emissions
- ✓ Small volume treated effluent released to surface water bodies
- ✓ Potential for lower radiation doses to workers
- ✓ No tailings production; storage of precipitated by-products
- ✓ Very small volumes of clean waste rock (sandstone core from wellfield development)

## Socio-economic Considerations:

Relatively small operation with opportunity to use existing skills

## Key Components for the Project



### Denison is committed to maximizing opportunities

- Up to **300 jobs** during ~2 years of construction
- Approximately **100 jobs** during operation for **10 years**
- Targeted efforts to **Communities of Interest**, with a broad focus on northern Saskatchewan and Indigenous communities
- **Similar job types** to those at existing uranium operations
  - Trades, surface, environment, radiation, safety, camp, security
  - ISR operators are similar to process operators (training can be done in Meadow Lake)
- **Specific ISR training will be provided**
- Pre-requisite training will include **diploma or technical certification available in Saskatchewan**. Examples:
  - Process Operation Technician (SIIT in Meadow Lake)
  - Chemical Technology (Sask. Polytechnic)
- Construction and operation activities targeted to **Northern Saskatchewan / Indigenous-owned businesses**

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NOTES: (1) Refer to the "Wheeler River Project Provincial Technical Proposal and Federal Project Description", dated May 2020.

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## Community Engagement Survey Completion:

*We are looking for your feedback*

### Step 1 – Click link or scan QR code

The survey link will be posted in the chat function of the Zoom meeting, as well as posted on your community Facebook page after the meeting



### Step 2 – Complete the survey by October 7, 2021

### Step 3 – Cross your fingers... for a chance to win 1 of 5 VISA Gift Cards (\$100)

## Community Engagement Survey Completion:

*We are looking for your feedback*



1. Open the camera on your phone or a QR scanning app
2. Hold it over the QR code
3. A link to the online survey online will pop up on your phone
4. Click on the link
5. Complete the survey

Survey closes on  
**October 7, 2021**

## Community Engagement Survey Completion:

*We are looking for your feedback*

<https://www.surveymonkey.com/r/HZCDN2L>

**Wheeler River Project Community Engagement**

Wheeler River Project Survey

The purpose of this survey questionnaire is to inform Denison Mines which components of the environment community members value most, and to identify interests or concerns related to the proposed Wheeler River Project.

Valued components (VCs) refer to environmental biophysical or human features that may be impacted by a project. The value of a component not only relates to its role in the ecosystem, but also to the value people place on it. For example, it may have scientific, social, cultural, economic, historical, archaeological or aesthetic importance.

Reference: 2019 Impact Assessment for the Wheeler River Project Environmental Impact Statement (EIS) and the Wheeler River Project Environmental Assessment (EA), 2019.

This survey is conducted by Denison Mines with support from Canada North Environmental Services.

1. Age:

- ☐ 0-15
- ☐ 16-34
- ☒ 35-64

## Community Engagement Survey Completion:

*We are looking for your feedback*

<https://www.surveymonkey.com/r/HZCDN2L>

7. From the list below, please click on the valued components that you feel are most important for us to study as part of the impact assessment.

<input type="checkbox"/> Local economy	<input type="checkbox"/> Community well-being	<input type="checkbox"/> Surface water
<input type="checkbox"/> Employment	<input type="checkbox"/> Public safety	<input type="checkbox"/> Sediment
<input type="checkbox"/> Business activity	<input type="checkbox"/> Infrastructure and services	<input type="checkbox"/> Invertebrates
<input type="checkbox"/> Training	<input type="checkbox"/> Terrain	<input type="checkbox"/> Fish
<input type="checkbox"/> Industry use	<input checked="" type="checkbox"/> Soil	<input type="checkbox"/> Fish habitat and aquatic plants
<input type="checkbox"/> Outfitting tourism	<input type="checkbox"/> Vegetation	<input type="checkbox"/> Groundwater quality
<input type="checkbox"/> Traditional land and resource use	<input type="checkbox"/> Ungulates	<input type="checkbox"/> Air quality
<input type="checkbox"/> Cultural expression	<input type="checkbox"/> Birds	<input type="checkbox"/> Noise level
<input type="checkbox"/> Heritage resources	<input type="checkbox"/> Farmland	
<input type="checkbox"/> Why did you choose these valued components?		

## Environmental Assessment:

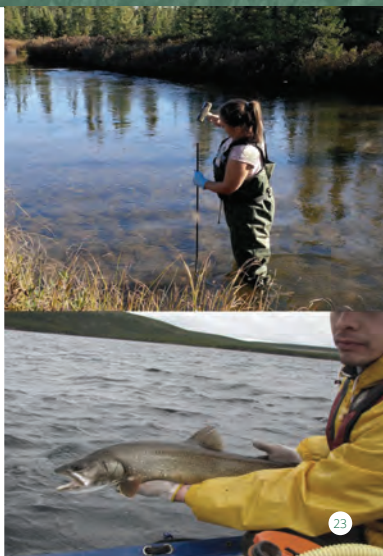
*Understanding the Project's interactions with human and biophysical environment*

### Baseline Studies

- Environmental baseline studies have been ongoing since 2012
- Denison needs to understand the current environmental conditions within and around the Wheeler River Project area

### Environmental Assessment

- Initiated the federal and provincial environmental assessment processes in May 2019 with the Wheeler River Project Description
  - Lead federal regulator:** Canadian Nuclear Safety Commission
  - Lead provincial regulator:** Saskatchewan Ministry of Environment, Environmental Assessment Branch
- Technical studies designed to understand potential effects of the Project on the biophysical and human environments



## Valued Components:

Understanding effects on the things that are important

- Gain an understanding** of what is important to the people who use the area and to the people who may be affected by project activities.
- Gather information** through research, from regulator feedback and through engagement with communities and Indigenous groups communities
- Design the environmental** studies to predict how the VC's may change and what measures can be put in place to minimize and monitor the changes
- Monitoring and reporting** of the changes to VC's will carry on throughout all phases of the project into decommissioning and post closure





## Economy



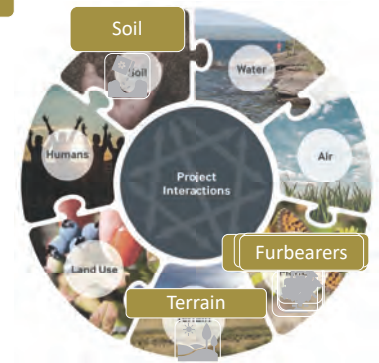
## Land and Resource Use, Cultural Continuity



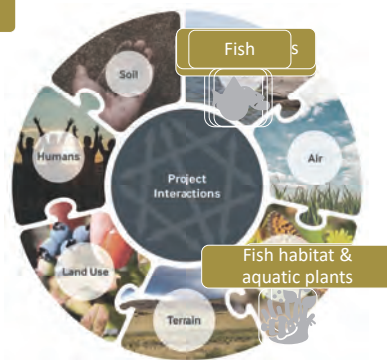
## Quality of Life



## Terrestrial



## Aquatic



## Groundwater



# Atmosphere & Acoustic



**Next Steps:**  
*Keeping conversation going and community informed*



## Conversation Channels

- Denison will be continually improving communication channels
- Denison will use information shared with us to inform environmental assessment
- Denison will share information back with the community and leadership regarding what we heard from these sessions

Contact us at [WheelerRiverInfo@denisonmines.com](mailto:WheelerRiverInfo@denisonmines.com)

**Wednesday September 29, 2021: 10 – 11:30**  
**Virtual Meeting: Leadership of Athabasca Basin**  
**Organized by Ya'thi Nene Lands and Resources Office**  
 Via Zoom

**Attendees:**


---

Dave Bronkhorst	Linda McNabb (YNLR)
Carolanne Inglis-McQuay	Chief Bart Tsannie (Hatchet Lake)
Chad Sorba	Dean Classen (Uranium City)
Xavier Lu Dac	Al Sayne (Stony Rapids)
Janna Switzer	Chief Kevin Mercredi (Fond du Lac)
Garrett Schmidt (YNLR)	Raymond MacDonald (Black Lake)
Shea Shirley (YNLR)	Fred Martin
Ian Donard (YNLR CLT)	Louise Bougie (Uranium City)
Jean Tsannie (YNLR CLT)	Terri Daniels (Wollaston)
Derek Cook (YNLR CLT)	Clare Laroque (Camsell Portage)
Chris Tousaint (YNLR CLT)	Daniel Powder (Stony Rapids)
Elder George St. Pierre (Hatchet Lake)	Freddie Throassie (Black Lake First Nation)
Councillor Peter Gazandlare (Hatchet Lake)	

---

Q: This is a new method of mining, community consultation is important.

A: Denison will be holding a meeting with all the Athabasca Basin, where we will share information. We're also working with YNLR on another round of engagement, virtually.

Q: I suggest that we include the homeland of the Dene and the Metis in the opening acknowledgement. It's important to include both.

Q: The Cluff Lake group came into the community and made promises, but those were not kept. The people in the area do not get jobs and opportunity. I'd like to see that this doesn't happen.

Q: The Key Lake Mine gate access, I had to go through English River and the Saskatoon office to get to Russell Lake. I don't think it should be an issue for the people. Are you going to be using Key Lake Mine gate to access the mine site?

A: We hear your point on the homeland of the Dene, we will include that in the land acknowledgement. Denison's project is quite small, when in operation we will be working with about 150 people, and we'll work hard to employ throughout the north.

A: Denison also has to seek permission to get through the Key Lake gate. The question should be put toward the Province and Cameco.

Q: Are you aware of the Collaboration Agreement with Orano and Cameco?

A: Yes we are familiar with the agreement.

Q: Would the new mine be a part of that?

A: No, the Denison project would not be a part of that agreement, as we are a separate company. We're working with YNLR on various elements, looking to make sure we understand the connection to the area. That helps inform the relationship as we go forward, this is step #1.

Q: Has this kind of mining been done anywhere else? What are the results?

A: ISR is popular in the United States. 50% of all uranium produced is through the ISR method. There are strict rules about where ISR mining can take place, Wheeler has the proper containment (bedrock) to allow for this type of mining.

Q: Regarding the wells and reusing the water, is there a liner in the well?

A: There are double layer in the wells. It's a rigorous design, in total there's triple layer containment. The water is kept within the system.

Q: Hopefully we'll get better royalties, hopefully we can come up with an agreement

A: Thanks for your comments. They have been noted.

Q: Is there going to be any education for the Athabasca people? Or training?

A: Job requirements would be very similar to McArthur River or to be a process operator. A lot of that training is already available in the province. There are a number of people in the north that are already trained, and can adapt to this type of mining.

A: We're actively thinking of making training available when we're closer to production.

Q: It's important to showcase who we are. Miners come from other places, they don't know what's important to us. I hope Denison will do something for the people

A: Noted

Q: How much water is used? How much is used on a daily basis? Is it treated and where does it go?

A: 40 cubic meters is the maximum amount we would use at any time. The water is recycled through the system, anything that cannot be recycled goes to the water treatment plant and is discharged to the environment, white fish lake.

Q: What's the long-term impact to the land?

A: The water that will be released will be treated prior to release. This is to ensure minimal impact.

Q: For employment, is there new types of job we should be training for?

A: One of the benefits of ISR is that the methods (jobs/training) are similar to other mines. There's a work force out there that has already been trained. There are people in the area that already have experience. We will be building out training programs as we advance. That work is ongoing and will be shared with the communities. We'll be preparing for that over the next 4-5 years

Q: Are you Unionized?

A: Because construction is more than 4 years away, we don't have a workforce to do thinking about being unionized.

Q: For opportunities, are we going to be treated the same as other communities? Or will we have first opportunity? How are we justified in those areas, for opportunities? It needs to be fair for the Dene.

*Sent for confirmation on October 1, 2021*



A: We're working with the Athabasca communities in a regional fashion and are working closely with ERFN, Pinehouse, Beauval etc, owing to the nature of the location of our project. We'll assess as we move forward and we understand that there are multiple territories throughout the region. This is something that we're working on. Again, it's a smaller operation and we will insure we are maximizing opportunities to the communities

Q: At what stage is there discussions about exploration agreements and collaboration agreements with the Athabasca communities?

A: We've been in discussion with the YNLR office about exploration agreements. Those are ongoing.

Q: Are you involved with the northern training institutions?

A: Not yet - it's a little too early. We're aware of them.

## Email

Denison to YNLR

September 30, 2021

There are two things I need to clarify in response to our leadership call yesterday. Please see below.

1. Slide 6 had an incorrect ownership amount for Denison of Wheeler River. The slide should have stated that Denison has an effective 95% interest in Wheeler River. This change occurred only very recently and as a result, was missed in updating the slide (updated slide is at the bottom of this email)
2. There were many comments made in respect of Collaboration Agreements, agreements in general, will Denison be negotiating an agreement with us, etc. I want to take a moment to pull all the various answers together and provide your leadership with one answer in respect of this.

Denison intends to advance the Wheeler River Project in a manner which respects Indigenous and Treaty rights and provides economic opportunities and other benefits to impacted Indigenous communities. To that end, Denison is following the following process in respect of determining and / or negotiating agreements with communities:

- a. Understanding the various Indigenous territories in which the Project is located
- b. Conducting an assessment of the potential effects of the Project on the land, water, wildlife, etc. and determining whether those potential effects may cause adverse impacts to the exercise of Indigenous and / or Treaty Rights by local rightsholders
- c. Denison will be seeking to enter into agreements with local rights holders which reflect the degree of potential adverse impacts to Indigenous and / or Treaty Rights and to provide benefits to the communities and peoples who live in close proximity to the Project. Denison has been working with YNLR to fund and facilitate work which will support our assessment of the potential effects of the Wheeler River Project on the Athabasca communities, and we look forward to continuing this important work as we advance the Project.

If you could please share this email with those who were on the call today, I would appreciate it.

## Company Overview:

*Denison is focused on opportunities in northern Saskatchewan*

- 22.5% interest in **McClean Lake Uranium Mill**
- An effective 95% interest in Flagship **Wheeler River** project
  - Advancing through development process
  - Largest undeveloped uranium project in the infrastructure rich eastern Athabasca Basin
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- 66.9% in the **Waterbury Lake Property**, hosting the Tthe Heldeth Túé (formerly J Zone) deposit
  - Recently completed Preliminary Economic Assessment ("PEA")<sup>1</sup>
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  - **+250,000 hectares** of exploration ground



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NOTES: (1) See Denison's news release dated Nov. 17, 2020; The PEA is a preliminary analysis and should not be considered the same as a Pre-Feasibility or Feasibility Study, see Cautionary Statements slide for details



*Sent for confirmation on October 1, 2021*



Wheeler River Project information presentation for the Athabasca Communities of Black Lake, Camsell Portage, Fond du Lac, Hatchet Lake, Stony Rapids, Uranium City and Wollaston Lake

**Sept 29 - On Zoom**

**6:00pm - 8:00pm**

Use the following Zoom Login Information:

**853 7635 7151 - Passcode: 12345**

**Phone: (647) 374-4685 (English only)**

**[www.wheelerriverproject.ca](http://www.wheelerriverproject.ca)**

**Win door prizes! \$100 and \$250 Gift Certificates for your Local Stores!**

Prizes also available for completing the feedback survey provided during the meeting.

Entertainment during meeting breaks.

Wheeler River Project information presentation for the Athabasca Communities of Black Lake, Camsell Portage, Fond du Lac, Hatchet Lake, Stony Rapids, Uranium City and Wollaston Lake

This is a public meeting, which is open to all residents of the Athabasca Basin

This meeting will be translated by Rosalie Tsannie-Burseth

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Entertainment during meeting breaks.

**Sept 29 - Zoom Meeting**

**6:00pm - 8:00pm**

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**853 7635 7151 - Passcode: 12345 Phone:**

**(647) 374-4685 (English only)**

**The Wheeler River Project Team looks forward to seeing you and hearing from you on Zoom.**



**[www.wheelerriverproject.ca](http://www.wheelerriverproject.ca)**



Wheeler River Project information  
presentation for the Athabasca  
Communities of Black Lake, Camsell  
Portage, Fond du Lac, Hatchet Lake,  
Stony Rapids, Uranium City and  
Wollaston Lake



**SEPT 29**  
**On Zoom**  
6:00pm - 8:00pm

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**The Wheeler River Project Team looks forward to seeing you and hearing from you on Zoom.**

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**WHEELER RIVER**

 **lenison Mines**

<https://wheelerriverproject.ca/>

## Agenda

- Opening
- How to Use Zoom
- 'Virtual' Meal – Support to the High Schools
- Introductions (Denison, Province, CNSC)
- Wheeler River Project Overview
- **Door prize draws and entertainment**
- Environmental Assessment Process
- Valued Components
- Questions and Answers
- Next Steps from Denison
- **Final door prize draws and entertainment**

## How to Use the Dené Translation

- Click the Interpretation button
- Select your preferred language, Dené or English

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## How to Participate using Zoom Features

**Chat and Video Function**

- Enter your name and community in the chat function if you'd like to be entered to win a prize for attendance
- The chat function is also where we will have you answer questions we pose throughout the presentation to be entered to win a prize for participation
- The chat function is a place to ask us questions, as the microphones will be muted
- Video – you can turn your video on or off (video off often improves quality of video conference)

## Denison's Guiding Principles

- Denison recognizes and is deeply respectful of the fact that the Wheeler River project is located within the boundaries of **Treaty 10**, and is in the heart of the **traditional territory of the English River First Nation**, and in the **homeland of the Métis of Saskatchewan**
- Denison has the utmost **respect** for Indigenous communities, Indigenous Rights, and Indigenous knowledge
- We wish to **share the land** and to work in partnership
- Denison understands the importance of **protecting the area** in which we are working

## Donations to Support Athabasca High Schools

**\$1,500 Donation to Each School**

- Father Porte (Black Lake)
- Father Megret (Hatchet Lake)
- Father Gamache (Fond du Lac)

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## Cautionary Statements & References

This presentation and the information contained herein is designed to help you understand management's current views, and may not be appropriate for other purposes. This presentation contains information relating to the uranium market, third-party and geoscientific information, and the plans and availability thereof, derived from third-party publications and reports which Denison believes are reliable but have not been independently verified by the Company.

Certain information contained in this presentation constitutes "forward-looking information" within the meaning of the United States Private Securities Litigation Reform Act of 1995 and similar Canadian legislation concerning the business, operations and financial performance and condition of Denison. Generally, these forward-looking statements can be identified by the use of forward-looking terminology such as "plans", "expectations", "objectives", "intentions", "forecasts", "intends", "anticipates", or "believes", or the negatives and/or variations of such words and phrases, or state that certain actions, events or results "may", "could", "might" or "will be taken", "focus", "be achieved" or "be the potential to". In particular, this presentation contains forward-looking information pertaining to the results of, and estimates, assumptions and projections provided in the Wheeler PFS and the Waterbury PEA, including future development methods and plans, market prices, costs and capital expenditures, assumptions regarding Denison's ability to obtain all necessary regulatory approvals to commence development at Wheeler, Denison's percentage interest in its projects and its agreements with its joint venture partners, and the availability of services to be provided by third parties. Statements relating to "mineral resources" are deemed to be forward-looking information, as they involve the implied assumptions, based on certain estimates and assumptions that the mineral resources described can be profitably produced in the future.

Forward-looking statements are based on the opinions and estimates of management as of the date such statements are made, and they are subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of Denison to be materially different from those expressed or implied by such forward-looking statements. Denison faces certain risks, including the current and potential impacts of the COVID-19 pandemic, cost of mining methods which may result and unexpected in the Athabasca basin, the inability to permit or proceed with its projects as currently planned, the inability to secure sufficient financing to pursue its business objectives, the unavailability of market prices, events that could materially increase costs, changes in the regulatory environment governing the project lands, and unanticipated claims against title and rights to the project. Denison believes that the expectations reflected in this forward-looking information are reasonable but there can be no assurance that such statements will prove to be accurate and may differ materially from those anticipated in this forward-looking information. For a discussion in respect of risks and other factors that could influence forward-looking events, please refer to the "Risk Factors" in Denison's Annual Information Form dated March 13, 2020 available under the profile at [www.denison.com](http://www.denison.com) and its Form F-43 available at [www.sedar.com](http://www.sedar.com). These factors are not, and should not be construed as being, exhaustive.

Readers should not place undue reliance on forward-looking statements. The forward-looking information contained in this presentation is expressly qualified by this cautionary statement. Any forward-looking information and the assumptions made with respect thereto speak only as of February 8, 2021. Denison does not undertake any obligation to publicly update or revise any forward-looking information after such date to conform such information to actual results or to changes in its expectations except as otherwise required by applicable legislation.

**Cautionary Note to United States Investors Concerning Estimates of Mineral Resources and Mineral Reserves:** This presentation may use terms such as "measured", "indicated" and/or "inferred" mineral resources and "proven" or "probable" mineral reserves, which are terms defined with reference to the guidelines set out in the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") CIM Definition Standards on Mineral Resources and Mineral Reserves ("CIM Standards"). The Company's descriptions of its projects using CIM Standards may not be comparable to similar information made public by U.S. companies subject to the reporting and disclosure requirements under the United States federal securities laws and the rules and regulations thereunder.

**Qualified Persons**  
The disclosure of a scientific or technical nature within this presentation, including the disclosure of mineral resources, mineral reserves, as well as the results of the Wheeler PFS and Waterbury PEA, was reviewed and approved by David Bronkhorst, P.Eng., who is a Qualified Person in accordance with the requirements of NI 43-33.

**Technical Reports**  
• For further details regarding the Wheeler River project, please refer to (a) the Company's press releases dated December 1, 2020, regarding the adoption of the process design for ISR at Phoenix, and September 24, 2020, regarding the Preliminary Study, and (b) the technical report titled "Pre-feasibility Study for the Wheeler River Uranium Project, Saskatchewan, Canada" with an effective date of September 24, 2020 ("Wheeler PFS").  
• For further details regarding the Waterbury Lake project, please refer to the Company's press release dated November 13, 2020 and the technical report titled "Preliminary Economic Assessment for the Tiber (Healds Tail) (Zone) Deposit, Waterbury Lake Property, Northern Saskatchewan, Canada" with an effective date of October 30, 2020 ("Waterbury PEA"). The Waterbury PEA is a preliminary analysis of the potential viability of the Project's mineral resources, and should not be considered the same as a Pre-feasibility or Feasibility Study, as various factors are preliminary in nature. There is no certainty that the results from the PEA will be realized. Mineral resources are not mineral reserves and do not have demonstrated economic viability. Scheduled tonnes and grade do not represent an estimate of mineral reserves.

For a description of the data verification, assay procedures and the quality assurance program and quality control measures applied by Denison, please see Denison's Annual Information Form dated March 13, 2020. Copies of the foregoing are available on Denison's website and under its profile on SEDAR at [www.sedar.com](http://www.sedar.com) and on EDGAR at [www.sec.gov/edgar.shtml](http://www.sec.gov/edgar.shtml).

## Denison Team

- Dave Bronkhorst, VP Operations
- Janna Switzer, Environment Manager
- Chad Sorba, Technical Manager
- Carolanne Inglis-McQuay, CSR Manager
- Xavier Lu Dac, Senior Engineer
- Dana Harris, Senior Project Coordinator
- Mike Dawe, Environment and CSR Coordinator
- Jenn Skilnick, Environment Coordinator



Canadian Nuclear Safety Commission / Commission canadienne de sûreté nucléaire

**CANADIAN NUCLEAR SAFETY COMMISSION**

- Protect communities and the environment
- Ensure the peaceful use of nuclear energy
- Share information and engage

**Canada's Nuclear Regulator**



## RESPONSIBILITIES

### CNSC Responsibilities:

- Independent, objective, science based and risk-informed decisions
- Set requirements
- Verify compliance

### Licensee Responsibilities:

- Manage regulated activities to protect health, safety, security and the environment, while respecting Canada's international obligations
- Responsible and accountable for the safe operation of facilities and activities

8

## ENVIRONMENTAL ASSESSMENT

- Opportunities for public and Indigenous consultation are continuous
- Federal and provincial agencies are involved and contribute their expertise in Impact Assessments and Environmental Assessments
- Decisions are independent, transparent and evidence-based

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## Province of Saskatchewan

Province of Saskatchewan: Ministry of Environment



Mr. Aimann Sadik: Senior Environmental Assessment Administrator

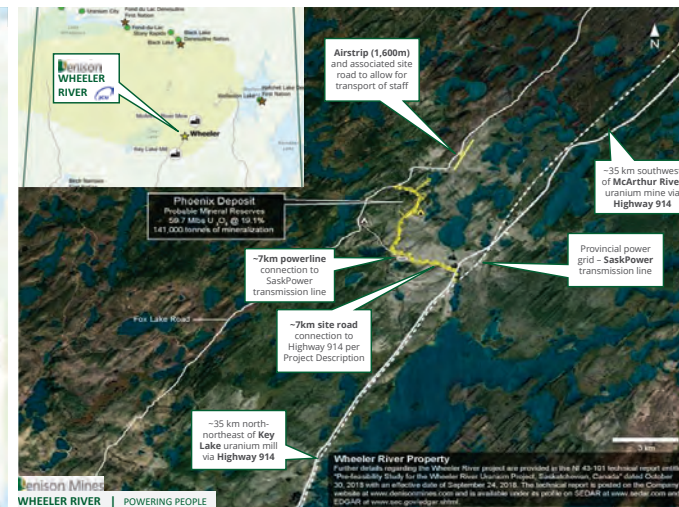
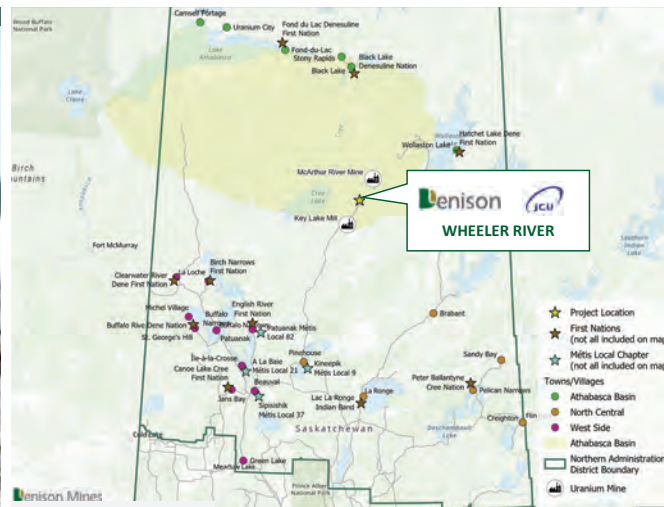
Denison Mines  
WHEELER RIVER | POWERING PEOPLE

12

### Company Overview:

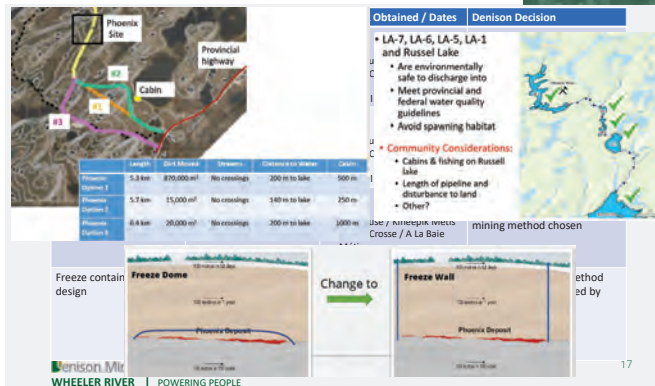
Denison is focused on opportunities in northern Saskatchewan

- 22.5% interest in McClean Lake Uranium Mill
- An effective 95% interest in Flagship Wheeler River project
  - Advancing through development process
  - Largest undeveloped uranium project in the infrastructure rich eastern Athabasca Basin
  - Environmental Assessment ("EA") initiated
  - Progressive approach to mining using In Situ Recovery ("ISR") method
- 66.9% in the Waterbury Lake Property, hosting the The Haldeth Tûé (formerly J Zone) deposit
  - Recently completed Preliminary Economic Assessment ("PEA")
  - Amenable to ISR mining method
- Several other interests in the Athabasca Basin region
  - McClean Lake, Midwest, and Waterbury Lake properties, all in close proximity to McClean mill
  - +250,000 hectares of exploration ground



### Alternatives Assessments for the Project:

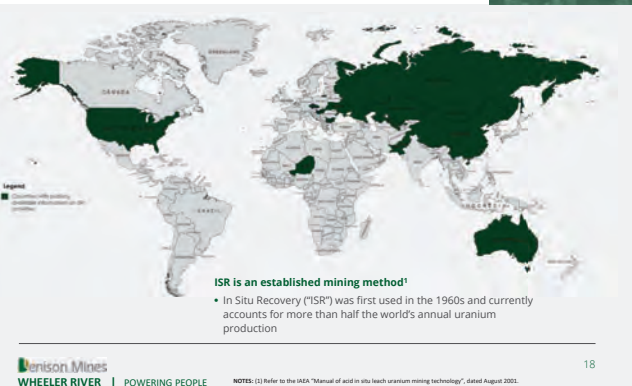
Adapting over the years



### In Situ Recovery ("ISR") Mining:

Introducing a proven mining technique to the Athabasca Basin

### Key Components for the Project



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## Community Engagement Survey Completion:

*We are looking for your feedback*



1. Open the camera on your phone or a QR scanning app
2. Hold it over the QR code
3. A link to the online survey online will pop up on your phone
4. Click on the link
5. Complete the survey

Survey closes on  
**October 7, 2021**

## Community Engagement Survey Completion:

*We are looking for your feedback*

<https://www.surveymonkey.com/r/HZCDN2L>

**Wheeler River Project Community Engagement**

Wheeler River Project Survey

The purpose of this survey questionnaire is to inform Denison Mines which components of the environment community members value most, and to identify interests or concerns related to the proposed Wheeler River Project.

Valued components (VCs) refer to environmental biophysical or human features that may be impacted by a project. The value of a component not only relates to its role in the ecosystem, but also to the value people place on it. For example, it may have scientific, social, cultural, economic, historical, archaeological or aesthetic importance.

Denison Mines is committed to understanding the environment-related challenges and opportunities associated with the project.

This survey is conducted by Denison Mines with support from Canada North Environmental Services.

1. Age:

☐ 0-15

☐ 16-34

☐ 35-44

## Community Engagement Survey Completion:

*We are looking for your feedback*

<https://www.surveymonkey.com/r/HZCDN2L>

7. From the list below, please click on the valued components that you feel are most important for us to study as part of the impact assessment.

<input type="checkbox"/> Local economy	<input type="checkbox"/> Community well-being	<input type="checkbox"/> Surface water
<input type="checkbox"/> Employment	<input type="checkbox"/> Public safety	<input type="checkbox"/> Sediment
<input type="checkbox"/> Business activity	<input type="checkbox"/> Infrastructure and services	<input type="checkbox"/> Invertebrates
<input type="checkbox"/> Training	<input type="checkbox"/> Terrain	<input type="checkbox"/> Fish
<input type="checkbox"/> Industry use	<input type="checkbox"/> Soil	<input type="checkbox"/> Fish habitat and aquatic plants
<input type="checkbox"/> Outfitting tourism	<input type="checkbox"/> Vegetation	<input type="checkbox"/> Groundwater quality
<input type="checkbox"/> Traditional land and resource use	<input type="checkbox"/> Ungulates	<input type="checkbox"/> Air quality
<input type="checkbox"/> Cultural expression	<input type="checkbox"/> Birds	<input type="checkbox"/> Noise level
<input type="checkbox"/> Heritage resources	<input type="checkbox"/> Furbearers	
<input type="checkbox"/> Why did you choose these valued components?		

## Environmental Assessment:

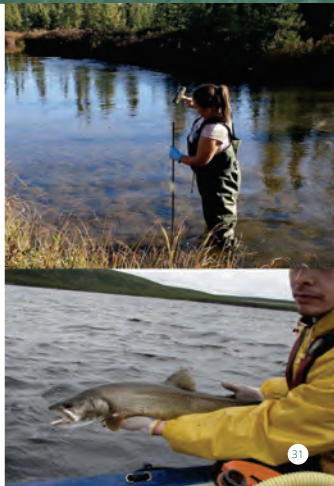
*Understanding the Project's interactions with human and biophysical environment*

### Baseline Studies

- Environmental baseline studies have been ongoing since 2012
- Denison needs to understand the current environmental conditions within and around the Wheeler River Project area

### Environmental Assessment

- Initiated the federal and provincial environmental assessment processes in May 2019 with the Wheeler River Project Description
- Lead federal regulator:** Canadian Nuclear Safety Commission
- Lead provincial regulator:** Saskatchewan Ministry of Environment, Environmental Assessment Branch
- Technical studies designed to understand potential effects of the Project on the biophysical and human environments



### Valued Components:

Understanding effects on the things that are important

- Gain an understanding** of what is important to the people who use the area and to the people who may be affected by project activities.
- Gather information** through research, from regulator feedback and through engagement with communities and Indigenous groups communities
- Design the environmental** studies to predict how the VCs may change and what measures can be put in place to minimize and monitor the changes
- Monitoring and reporting** of the changes to VCs will carry on throughout all phases of the project into decommissioning and post closure



## Economy



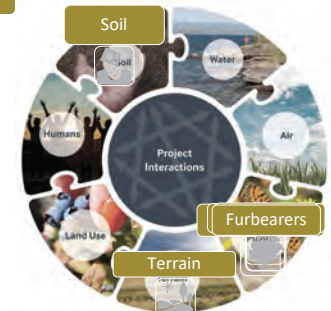
## Land and Resource Use, Cultural Continuity



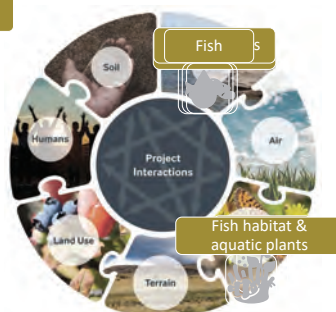
## Quality of Life



## Terrestrial



## Aquatic



## Groundwater



## Atmosphere & Acoustic

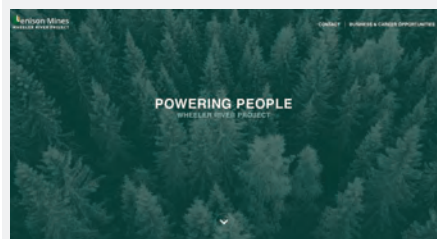


### Questions / Comments

Summary of questions

**Next Steps:**  
Keeping conversation going and community informed

**Conclusion:**  
Thank you for attending!



Contact us at [WheelerRiverInfo@denisonmines.com](mailto:WheelerRiverInfo@denisonmines.com)

### Conversation Channels

- Denison will be continually improving communication channels
- Denison will use information shared with us to inform environmental assessment
- Denison will share information back with the community and leadership regarding what we heard from these sessions

3 x \$100 Gift Certificates to your local store  
2 x \$250 Gift Certificates to your local store

1. Hatchet Lake Band Store
2. Black Lake Northern Store
3. Fond du Lac Northern Store



## Wheeler River Project - Athabasca Basin Members Engagement

## Wheeler River Project Survey

The purpose of this survey questionnaire is to inform Denison Mines which components of the environment community members value most, and to identify interests or concerns related to the proposed Wheeler River Project.

Valued components (VCs) refer to environmental biophysical or human features that may be impacted by a project. The value of a component not only relates to its role in the ecosystem, but also to the value people place on it. For example, it may have scientific, social, cultural, economic, historical, archaeological or aesthetic importance.

Reference: 2016 Generic Guidelines for the Preparation of an Environmental Impact Statement pursuant to the Canadian Environmental Assessment Act, 2012

The survey results will be used to help Denison Mines determine which valued components should be studied in detail as part of the Wheeler River effects assessment. Results of the survey will also help Denison Mines understand which valued components the community would like to receive updates on once the early results of the effects assessment are ready to be shared.

A summary of the survey results will be shared on the Denison Mines website in March 2021. There are several benefits of sharing your thoughts in the survey questionnaire. Your input will help Denison Mines focus on environmental components, concerns or topics that matter most to your community. If you choose to leave your name and contact information at the conclusion of the survey, you will be entered into a prize draw for one of ten \$100 VISA gift cards. Participation in the draw is optional and only those who complete the survey will be entered in the draw. This survey is conducted by Denison Mines with support from Canada North Environmental Services.

Participation in this survey is voluntary. If you agree to participate it will require a minimum of 15 minutes of your time to answer questions about components of the environment that you value, and any interests or concerns you have related to the Wheeler River Project. During the survey we will ask you some questions including your age, residence, if you identify as an Aboriginal person, and how you heard about the survey. Finally in order to be entered into the prize draw, you must provide your name and contact information.

Providing your name and contact information is optional. All information you share in this survey questionnaire will be kept strictly confidential and your name will not be associated with the data we collect. Your identity will remain confidential in all publications and public presentations related to this research.

If you have any questions or concerns about this survey questionnaire, please contact [WheelerRiverInfo@denisonmines.com](mailto:WheelerRiverInfo@denisonmines.com)

\* 1. By checking this box, you confirm that you understand the purpose of the survey, how the information you share will be used, and that participation in the survey is voluntary.

- ☐ I confirm that I understand the purpose of this survey, how the information will be shared, and that participation is voluntary
- ☐ I DO NOT feel comfortable proceeding with this survey and would like to exit

The Fact Sheets below provide a general overview of the of Wheeler River Project

**Denison's Guiding Principles**

- Support and encourage a strong regional economy that is based on the Athabasca Basin's natural resources
- Develop and maintain a strong relationship with the local community
- Develop and maintain a strong relationship with the local community
- Develop and maintain a strong relationship with the local community

**The Wheeler River Project: Location and Proposed Infrastructure**

**Site Location**

- The Wheeler River Project is located in the Athabasca Basin, approximately 100 km north of the town of Grande Prairie, Alberta.
- The project is situated on a 100-hectare site, which is currently used for agriculture and forestry.

**Proposed Infrastructure**

- A new 100-hectare site, which is currently used for agriculture and forestry.
- A new 100-hectare site, which is currently used for agriculture and forestry.

**Key Site Elements**

- A new 100-hectare site, which is currently used for agriculture and forestry.
- A new 100-hectare site, which is currently used for agriculture and forestry.

**Key Components for the Project in Site Recovery**

**ISR Mining**

**ISR mining: A progressive approach to mining uranium in the region**

**How is ISR Different?**

- All uranium is extracted from the ground through a series of wells.
- No open pits or tailings are produced.
- The process is highly controlled and monitored.

**10-metre-Deep Freeze Wall separates mining areas from surrounding groundwater**

- The wall is constructed from a series of concrete pillars.
- The wall is designed to prevent groundwater from entering the mining area.

**Wheeler River / Phoenix ISR: Different mining method and a different type of operation**

**Advantages of ISR mining compared to a mining operation in Canada**

- Small footprint
- Low water consumption
- Low energy consumption
- Low tailings production
- Low environmental impact
- Low greenhouse gas emissions
- Low land disturbance
- Low water consumption
- Low energy consumption
- Low tailings production
- Low environmental impact
- Low greenhouse gas emissions
- Low land disturbance

**Socioeconomic Considerations**

**Environment Assessment**

**Valued Components (VCs)**

**Understanding effects on the things that are important**

**Baseline Studies**

**Environmental Assessment (EA)**

**Lead federal regulation**

**Lead provincial regulation**

**Lead municipal regulation**

**Lead Indigenous regulation**

**Lead federal regulation**

**Lead provincial regulation**

**Lead municipal regulation**

**Lead Indigenous regulation**

community, please fill out the following questions to help us determine if there are any voices we haven't heard from yet.

## 2. Age:

- ☐ 0-15
- ☐ 16-34
- ☐ 35-64
- ☐ 65+

## 3. Do you identify as an Indigenous person (First Nations, Métis, or Inuit)? Answers to this question are entirely voluntary and not required.

## 4. Where do you live most of the year:

- ☐ Hatchet Lake
- ☐ Wollaston Lake
- ☐ Fond du Lac
- ☐ Black Lake
- ☐ Stony Rapids
- ☐ Uranium City
- ☐ Camell Portage
- ☐ Other
- ☐ Prefer not to say
- ☐ Please identify which other community you are from

## 5. How did you hear about this survey?

- ☐ Facebook
- ☐ Radio
- ☐ Posters
- ☐ Word of Mouth
- ☐ Other

## 6. Which of the following presentations did you attend? Check all that apply.

- ☐ Virtual Community Meeting
- ☐ Prefer not to say
- ☐ Virtual Leadership Meeting
- ☐ None of the above
- ☐ Virtual Ya'ni Nene Lands & Resource Office Meeting

## Wheeler River Project - Athabasca Basin Members Engagement

## Section 1: Tell us about yourself!

We want to make sure we are hearing from a diverse group of people from your

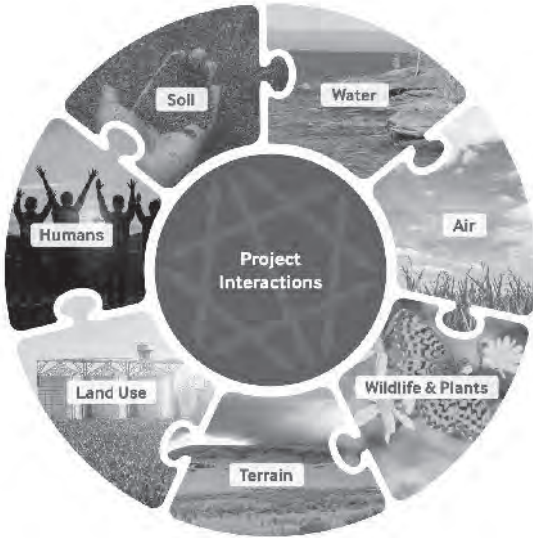
## Wheeler River Project - Athabasca Basin Members Engagement

## Section 2: Valued Components

Valued components (VCs) refer to environmental biophysical or human features that may be impacted by a project. The value of a component not only relates to its role in the ecosystem, but also to the value people place on it.

In previous engagement events, we heard that the valued components provided in the list below are important to community members. During the environmental impact assessment process, we plan to study these valued components to better understand if and how the Wheeler Project may impact them.

Valued Components Circle



7. From the list below, please click on the valued components that you feel are most important for us to study as part of the impact assessment.

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Local economy                     | <input type="checkbox"/> Community well-being        | <input type="checkbox"/> Surface water                   |
| <input type="checkbox"/> Employment                        | <input type="checkbox"/> Public safety               | <input type="checkbox"/> Sediment                        |
| <input type="checkbox"/> Business activity                 | <input type="checkbox"/> Infrastructure and services | <input type="checkbox"/> Invertebrates                   |
| <input type="checkbox"/> Training                          | <input type="checkbox"/> Terrain                     | <input type="checkbox"/> Fish                            |
| <input type="checkbox"/> Industry use                      | <input type="checkbox"/> Soil                        | <input type="checkbox"/> Fish habitat and aquatic plants |
| <input type="checkbox"/> Outfitting tourism                | <input type="checkbox"/> Vegetation                  | <input type="checkbox"/> Groundwater quality             |
| <input type="checkbox"/> Traditional land and resource use | <input type="checkbox"/> Ungulates                   | <input type="checkbox"/> Air quality                     |
| <input type="checkbox"/> Cultural expression               | <input type="checkbox"/> Birds                       | <input type="checkbox"/> Noise level                     |
| <input type="checkbox"/> Heritage resources                | <input type="checkbox"/> Furbearers                  |  |
- ☐ Why did you choose these valued components?

8. Are there any valued components that are important to you that are missing from this list? If so, please list them below. Why are these important to you?

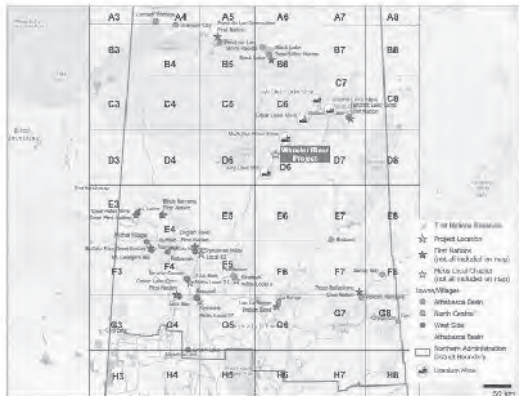
9. Are there any valued components on the list that are not important to you? If so, please select the valued components from the list below that you feel should be removed.

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Local economy                     | <input type="checkbox"/> Community well-being        | <input type="checkbox"/> Surface water                   |
| <input type="checkbox"/> Employment                        | <input type="checkbox"/> Public safety               | <input type="checkbox"/> Sediment                        |
| <input type="checkbox"/> Business activity                 | <input type="checkbox"/> Infrastructure and services | <input type="checkbox"/> Invertebrates                   |
| <input type="checkbox"/> Training                          | <input type="checkbox"/> Terrain                     | <input type="checkbox"/> Fish                            |
| <input type="checkbox"/> Industry use                      | <input type="checkbox"/> Soil                        | <input type="checkbox"/> Fish habitat and aquatic plants |
| <input type="checkbox"/> Outfitting tourism                | <input type="checkbox"/> Vegetation                  | <input type="checkbox"/> Groundwater quality             |
| <input type="checkbox"/> Traditional land and resource use | <input type="checkbox"/> Ungulates                   | <input type="checkbox"/> Air quality                     |
| <input type="checkbox"/> Cultural expression               | <input type="checkbox"/> Birds                       | <input type="checkbox"/> Noise level                     |
| <input type="checkbox"/> Heritage resources                | <input type="checkbox"/> Furbearers                  |  |

## Wheeler River Project - Athabasca Basin Members Engagement

## Section 3: Project Location and Quadrant Map

Wheeler River Project Location and Quadrant Map. The location of the Wheeler River project is denoted by a yellow star in the Quadrant D6



10. Using the quadrant map for reference, please select which quadrant(s) you and your family members (including Elders) travel (both directly or travel through) and perform land use activities. Land use activities can include, but are not limited to, hunting, fishing, trapping, harvesting medicine, education, recreation etc.

- |                             |                             |                             |
|-----------------------------|-----------------------------|-----------------------------|
| <input type="checkbox"/> A3 | <input type="checkbox"/> C7 | <input type="checkbox"/> F5 |
| <input type="checkbox"/> A4 | <input type="checkbox"/> C8 | <input type="checkbox"/> F6 |
| <input type="checkbox"/> A5 | <input type="checkbox"/> D3 | <input type="checkbox"/> F7 |
| <input type="checkbox"/> A6 | <input type="checkbox"/> D4 | <input type="checkbox"/> F8 |
| <input type="checkbox"/> A7 | <input type="checkbox"/> D5 | <input type="checkbox"/> G3 |
| <input type="checkbox"/> A8 | <input type="checkbox"/> D6 | <input type="checkbox"/> G4 |
| <input type="checkbox"/> B3 | <input type="checkbox"/> D7 | <input type="checkbox"/> G5 |
| <input type="checkbox"/> B4 | <input type="checkbox"/> D8 | <input type="checkbox"/> G6 |
| <input type="checkbox"/> B5 | <input type="checkbox"/> E3 | <input type="checkbox"/> G7 |
| <input type="checkbox"/> B6 | <input type="checkbox"/> E4 | <input type="checkbox"/> G8 |
| <input type="checkbox"/> B7 | <input type="checkbox"/> E5 | <input type="checkbox"/> H3 |
| <input type="checkbox"/> B8 | <input type="checkbox"/> E6 | <input type="checkbox"/> H4 |
| <input type="checkbox"/> C3 | <input type="checkbox"/> E7 | <input type="checkbox"/> H5 |
| <input type="checkbox"/> C4 | <input type="checkbox"/> E8 | <input type="checkbox"/> H6 |
| <input type="checkbox"/> C5 | <input type="checkbox"/> F3 | <input type="checkbox"/> H7 |
| <input type="checkbox"/> C6 | <input type="checkbox"/> F4 | <input type="checkbox"/> H8 |
- ☐ Other (please specify activity and quadrant)

11. Please select which of the following land use activities you and your family perform in the quadrants selected from question #10

- |   |  |
|---|--|
| <input type="checkbox"/> Hunting                              | <input type="checkbox"/> Cultural Purposes   |
| <input type="checkbox"/> Fishing                              | <input type="checkbox"/> Experiencing Nature |
| <input type="checkbox"/> Trapping                             | <input type="checkbox"/> Culture Camps       |
| <input type="checkbox"/> Harvesting Plants or Medicines       | <input type="checkbox"/> Camping             |
| <input type="checkbox"/> Recreation                           |  |
| <input type="checkbox"/> Traveling through to other locations |  |
| <input type="checkbox"/> Other (please specify)               |  |
- ☐ None of the above

Section 4: Interests and Concerns

12. Based on what you know so far about the Wheeler Project, what aspects of the project could benefit, or work well for your community?

13. Based on what you know so far about the Wheeler Project, what aspects of the project could be challenging or cause concern for your community?

14. Are there questions you have about the Wheeler Project that you would like to see addressed in future updates or communications? If, so please list your questions in the space below.

15. Is there anything else you would like us to know related to the Wheeler Project?

Wheeler River Project - Athabasca Basin Members Engagement

Section 5: Prize Draw Entry

If you would like your name entered into a draw prize, please provide the following information

16. Name

17. Phone number

18. Email address

19. Would you like us to add your email address to our mailing list to receive project updates?

- Yes/No
- ☐ Yes
- ☐ No

Wheeler River Project - Athabasca Basin Members Engagement

Thank You!

Thank you for completing the Wheeler River Project Community Engagement Survey. If you have any additional comments, questions or concerns please email [WheelerRiverInfo@denisonmines.com](mailto:WheelerRiverInfo@denisonmines.com)





## Uranium Development & Exploration The Wheeler River Project

October 14, 2021 Nuhtsiye-kwi Benéne Committee (Ancestral Lands Committee); English River Chief and Council



### Agenda

- Prayer / Introductions
- Overview of 2022 Exploration Permits
- Presentation by Environment & Cultural Monitor on 2021 Monitoring Activities
- Wheeler River Project
  - General Update
- Wheeler River Project – Heritage Management Protocols
- Reporting Back to ERFN from March, 2021 Meetings
- Next Meeting Date and Topics

## Cautionary Statements & References

This presentation and the information contained herein is designed to help you understand management's current views, and may not be appropriate for other purposes. This presentation contains information relating to the uranium market, third party and provincial infrastructure, and the plans and availability thereof, derived from third-party publications and reports which Denison believes are reliable but have not been independently verified by the Company.

**Certain information contained in this presentation constitutes "forward-looking information", within the meaning of the United States Private Securities Litigation Reform Act of 1995 and similar Canadian legislation concerning the business, operations and financial performance and condition of Denison.** Generally, these forward-looking statements can be identified by the use of forward-looking terminology such as "plans", "expects", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates", or "believes", or the negatives and/or variations of such words and phrases, or state that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur", "be achieved" or "has the potential to". In particular, this presentation contains forward-looking information pertaining to the results of, and estimates, assumptions and projections provided in, the Wheeler PFS and the Waterbury PEA, including future development methods and plans, market prices, costs and capital expenditures; assumptions regarding Denison's ability to obtain all necessary regulatory approvals to commence development at Wheeler; Denison's percentage interest in its projects and its agreements with its joint venture partners; and the availability of services to be provided by third parties. Statements relating to "mineral resources" are deemed to be forward-looking information, as they involve the implied assessment, based on certain estimates and assumptions that the mineral resources described can be profitably produced in the future.

**Forward looking statements are based on the opinions and estimates of management as of the date such statements are made, and they are subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of Denison to be materially different from those expressed or implied by such forward-looking statements.** Denison faces certain risks, including the current and potential impacts of the COVID-19 pandemic, use of mining methods which are novel and untested in the Athabasca basin, the inability to permit or develop its projects as currently planned, the inability to secure sufficient financing to pursue its business objectives, the unpredictability of market prices, events that could materially increase costs, changes in the regulatory environment governing the project lands, and unanticipated claims against title and rights to the project. Denison believes that the expectations reflected in this forward-looking information are reasonable but there can be no assurance that such statements will prove to be accurate and may differ materially from those anticipated in this forward looking information. For a discussion in respect of risks and other factors that could influence forward-looking events, please refer to the "Risk Factors" in Denison's Annual Information Form dated March 13, 2020 available under its profile at [www.sedar.com](http://www.sedar.com) and its Form 40-F available at [www.sec.gov/edgar.shtml](http://www.sec.gov/edgar.shtml). These factors are not, and should not be construed as being exhaustive.

**Readers should not place undue reliance on forward-looking statements.** The forward-looking information contained in this presentation is expressly qualified by this cautionary statement. Any forward-looking information and the assumptions made with respect thereto speaks only as of February 8, 2021. Denison does not undertake any obligation to publicly update or revise any forward-looking information after such date to conform such information to actual results or to changes in its expectations except as otherwise required by applicable legislation.

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The disclosure of a scientific or technical nature within this presentation, including the disclosure of mineral resources, mineral reserves, as well as the results of the Wheeler PFS and Waterbury PEA, was reviewed and approved by David Brookhirst, P.Eng., who is a Qualified Person in accordance with the requirements of NI 43-101.

#### Technical Reports

- For further details regarding the Wheeler River project, please refer to (a) the Company's press releases dated December 1, 2020, regarding the adoption of the freeze wall design for ISR at Phoenix, and September 24, 2018, regarding the Prefeasibility Study, and (b) the technical report titled "Prefeasibility Study for the Wheeler River Uranium Project, Saskatchewan, Canada" with an effective date of September 24, 2018 ("Wheeler PFS").
- For further details regarding the Waterbury Lake project, please refer to the Company's press release dated November 17, 2020 and the technical report titled "Preliminary Economic Assessment for the The Heldereth Tüé (J) Zone Deposit, Waterbury Lake Property, Northern Saskatchewan, Canada" with an effective date of October 30, 2020. ("Waterbury PEA"). The Waterbury PEA is a preliminary analysis of the potential viability of the Project's mineral resources, and should not be considered the same as a Pre-Feasibility or Feasibility Study, as various factors are preliminary in nature. There is no certainty that the results from the PEA will be realized. Mineral resources are not mineral reserves and do not have demonstrated economic viability. Scheduled tonnes and grade do not represent an estimate of mineral reserves.

For a description of the data verification, assay procedures and the quality assurance program and quality control measures applied by Denison, please see Denison's Annual Information Form dated March 13, 2020. Copies of the foregoing are available on Denison's website and under its profile on SEDAR at [www.sedar.com](http://www.sedar.com) and on EDGAR at [www.sec.gov/edgar.shtml](http://www.sec.gov/edgar.shtml).

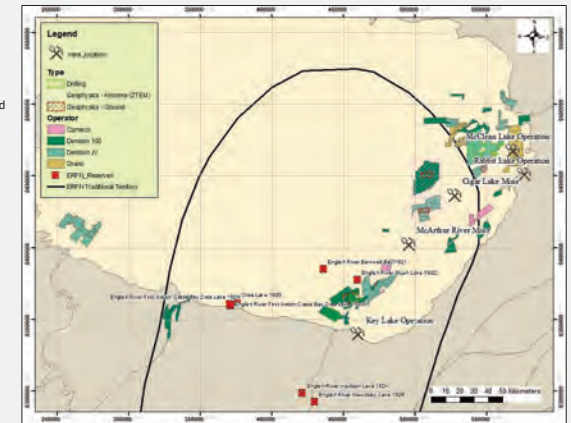
## 2022 Exploration Activities – Advance Review of Applications

**Action:** Denison submitted *draft* permit applications to ERFN for advanced review on September 17, 2021

1. Ford Lake
  - Diamond Drilling
2. Bachman Lake
  - Linecutting, Ground Geophysics (SML-EM), Diamond Drilling
3. Darby
  - Airborne Geophysics (ZTEM) +/- linecutting and Ground Geophysics (MT)
4. Candle Lake
  - Airborne geophysics (ZTEM)
5. Johnston Lake
  - Airborne Geophysics (ZTEM) +/- linecutting and Ground Geophysics (MT)
6. Waterbury Lake (outside of ERFN Traditional Territory)
  - Linecutting, Ground Geophysics (SML-EM)

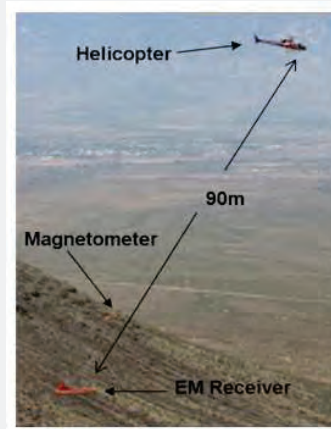
Requesting: Feedback by October 16, 2021

Plan to File with Province: October 21, 2021



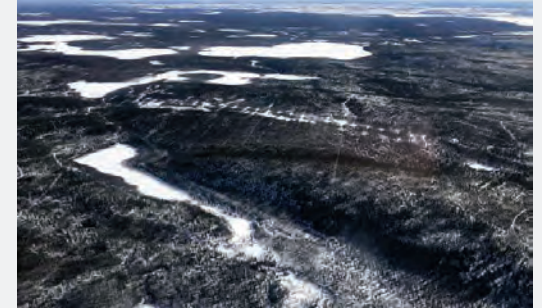
## Airborne Geophysical Surveys

- First steps in grassroots exploration
- No land-based activities
- Surveys flown using helicopter or fixed wing
- Collect magnetic, radiometry or electromagnetic data
- Denison plans to run a **ZTEM** platform on several projects in 2022
  - ZTEM is a helicopter-borne electromagnetic survey system which detects anomalies in the earth's natural magnetic field.
  - These disruptions are caused by zones of rock that conduct or resist electrical current more than the surrounding rock, like ore deposits.



## Line-Cutting

- Hand-cutting a grid to use as a reference to set up geophysical surveys; allow personnel and equipment to move more easily
- Width of lines is approximately 1.5m wide



## Ground Geophysical Surveys

- Electromagnetic surveys commonly used methods in exploration
- Generally higher resolution data compared to airborne datasets
- Involves laying large wire loops along previously-cut grid
  - Conducts electricity into the subsurface rocks and a series of receivers measure the magnetic and electrical response of the rocks



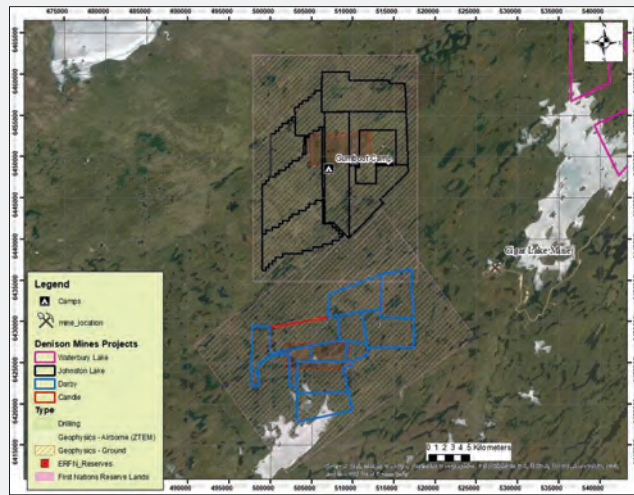
## Diamond Drilling

- Core drilling using rotary drill with diamond bit attached
- Skid-mounted diamond drill
- Drill pads to not exceed 30m x 30m
- Use of existing trails wherever possible
- No installation of new permanent water crossings





## Johnston Lake, Candle Lake, Darby

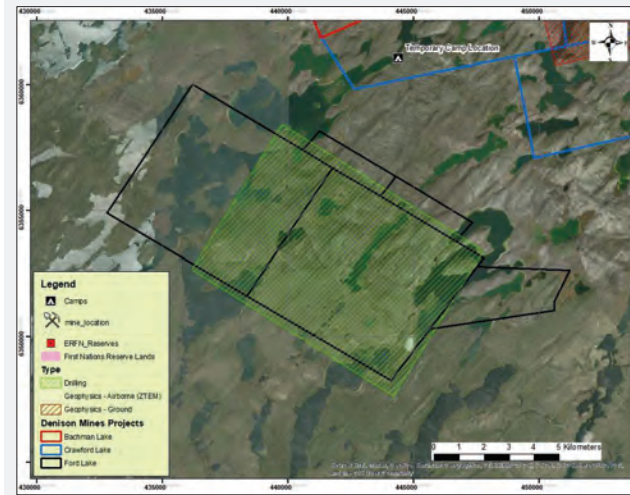


- Airborne geophysical survey (ZTEM)
- Supplemented by ground MT surveys
- Will require a total of 38 km of linecutting and 42 km of grid refurbishing
- Crews will be based out of Points North

Preferred timing is winter of 2022 to allow for work on frozen lakes and swamps

11

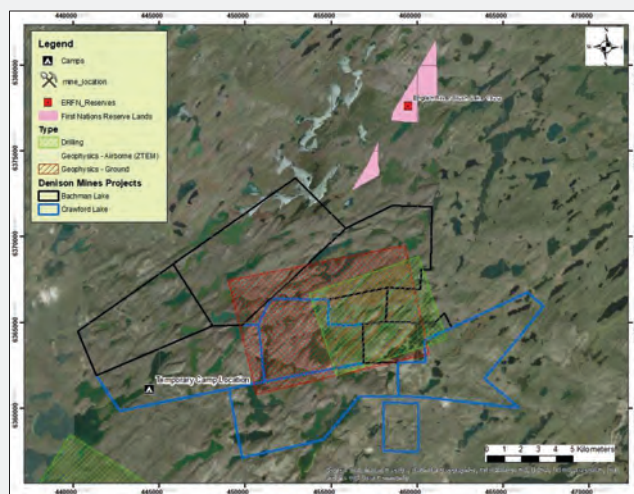
## Ford Lake



- Diamond drilling – 12 holes for a total of 6,000m
- Proposed for winter 2022
- Anticipated to take approximately 10-12 weeks
- Based out of Wheeler River camp OR temporary camp along shore of Phillips Lake
  - Same location as camp from 2021 geophysical program
  - 12-14 person camp

13

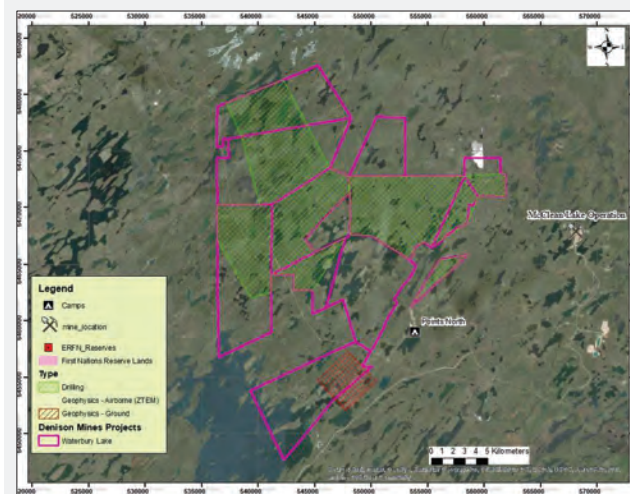
## Bachman Lake and Crawford Lake



- Ground geophysical survey
  - No linecutting – existing grid
  - 51 km grid refurbishing
  - 25.2 km SML-EM surveying
- Planned for winter 2022
- Based out of Wheeler River camp OR temporary camp established at the site of decommissioned Slush Lake camp OR camp at Phillips Lake
  - 10-14 person camp
- Potential for Diamond Drilling Program on Bachman
  - 6 holes for 3,600 m
- Denison is seeking feedback on the draft applications by **October 15, 2021**

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## Waterbury Lake



- Planned Geophysical Survey
  - 24 km linecutting
  - 18 km of SML-EM surveying
  - Crews will be housed at Points North
- Potential for diamond drill program
  - 20 drill holes; ~5,000 m

\*Outside of ERFN Traditional Territory\*

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## Environment & Cultural Monitor

- Attended Wheeler River Project site from August 10 to August 25, and September 7 to September 25
- Conducted the following monitoring activities:
  - Wheeler River Evaluation Project (Field activities supporting the advancement of the Wheeler Project)
  - Wheeler River Exploration Activities
- Provided ongoing observations during time onsite
- List of observations and Denison's response can be found in Report
- List of Recommendations



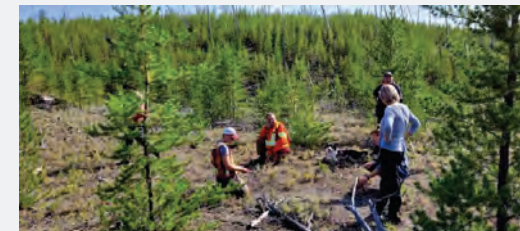
## Recommendations

- Long term contractors should imply the same moto as Denison and work with a collaborative agreement with northern communities. Environmental concerns and employment is always the fore front for every community.
  - Denison agrees, and works to ensure these elements are included in contracts with contractors; Denison does not require contractors to have Collaboration Agreements, but is actively negotiating one between Denison and ERFN
- Revegetation plan, why are we using modeling/studies that are used at other mine sites in other provinces. The flora and fauna is unique to the site as are the studies applicable to this site. Bobby John demonstrated the mounding and fencing will work, however with limited use. Local expert advice seems to be placed at the back versus someone with a degree not indicative to the area.
  - Denison's plan is to directly involve the Communities of Interest (including ERFN, Bobby John, etc) into the partnership work that will commence with the U of S in 2022; **site-specific** information is at the core of the work to be undertaken
- Denison site visits from the environment department should not be limited to the field work intentionally planned. Additional time should be allotted to inspect camp and deposits for any environment concerns
  - Noted for 2022; Denison has an environment team reflective of the state of the Project.

## Recommendations

- As for archeological sites and areas of importance, they were not identified during my field visits. In order to exclude archeological sites, in my opinion, a thorough field investigation may be required. The archeological map of Saskatchewan indicates several sites in and around Russell Lake.
  - Field investigations have been conducted in all areas where the Wheeler River Project infrastructure will be located.
  - **Two** newly recorded archaeological sites: Artifact Finds of unknown Precontact cultural affiliation
- Additional resources to assist the maintenance person would be an asset in maintaining the camp and equipment.
  - Noted for 2022
- Reassurance that indigenous content be included in all Environmental Impact Statements.
  - Denison is actively working with ERFN and Shared Value Solutions to ensure that ERFN content will be included in the Environmental Impact Statement

## Thank you, Walter!

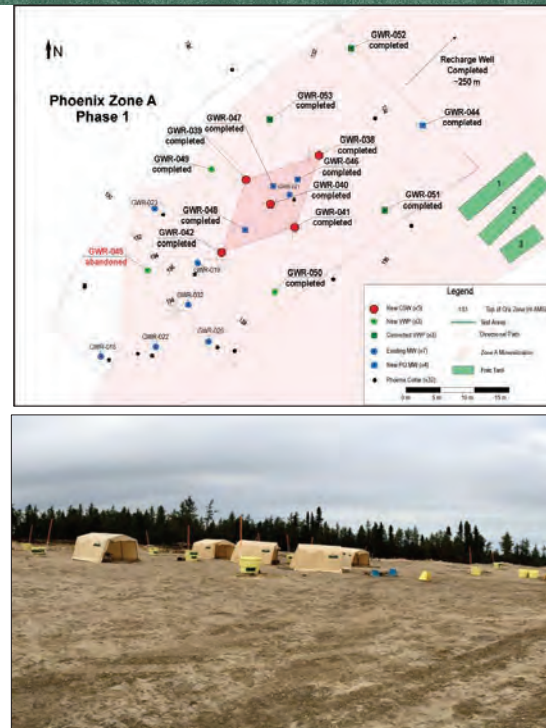


## Wheeler River Project – General Update

### Field Activities

2021

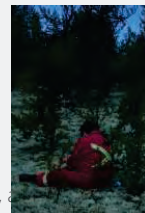
- Installation of Test Pattern and Monitoring Wells
- Deployment of Permeability Enhancement Methods
- Hydrogeological and Tracer Tests



## Wheeler River Project – Heritage Management Plan and Protocols



Patrick D'Jonaire (ERFN)



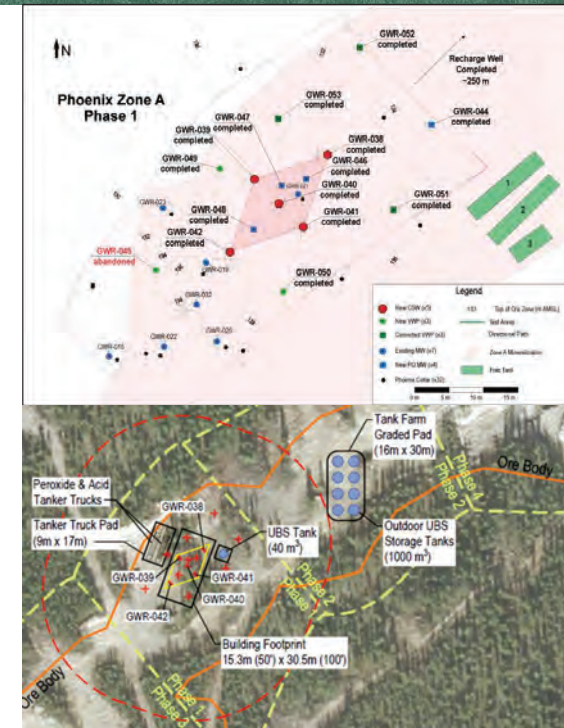
- An "Archaeological Object" means any object showing evidence of manufacture, or by humans that is found in or taken from land in Saskatchewan and that is of value for the information that it may give about historic human activity in Saskatchewan (*The Heritage Property Act* (Saskatchewan)).
- In 2017, Heritage Resource Impact Assessment was conducted more generally; one site found
- In 2019, a refined Project footprint was submitted for heritage screening
  - Heritage Resource Impact Assessment was required
  - ERFN Traditional Territory maps were carefully reviewed (no burial or sacred sites are identified within the Project footprint)
  - Between July 8 and July 12, further work was undertaken; 212 shovel probes and five shovel tests
  - **One** newly recorded archaeological site: Artifact Find of unknown Precontact cultural affiliation
  - Further work was done in the area and no more archaeological sites were found

## Wheeler River Project – General Update

### Field Activities

2022

- Installation of Additional Test and Monitoring Wells
- Retrofitting of Existing Commercial Scale Wells
- Further Hydrogeological Tests (using formation waters)
- In-ground Lixiviant Test



## Chance Find Procedure – In the Exploration Agreement

- Mutually agreed-upon process between Denison and ERFN regarding the finding of any archaeological objects
- Relevant for the Wheeler River Project
- Involves the **stopping of work immediately**, involvement of the ERFN Monitor and ultimately, a professional archaeologist to assess the significance of the object and adequate protection measures are in place
  - Avoidance
  - Mitigation
  - Further testing
- The finding of human remains immediately involve the RCMP
- Measures for protecting Archaeological Objects and any mitigation measures would be developed by the professional archaeologist, **in consultation with Denison, ERFN, the Monitor and the Heritage Branch**, including how to recommence work in the area
- Artifacts are the property of the crown and are stored at the Royal Saskatchewan Museum
  - Storage of the artifacts **can be discussed; how to store, where to store, protocols to follow for storage**

## Virtual Community Engagement Sessions – March, 2021



- Thank you to Tara “T-Rhyme” Campbell, Elder Isidore Campbell; Dakota Ray Hebert
- 24 participants by Zoom
- Played on the La Plonge (93.1) radio station
- Many questions asked during the meeting; Denison staff answered them all
- 22 people completed the online survey
- Identified the following Valued Components were most important:
- Air quality, community well-being, employment, fish, fish habitat and aquatic plants, groundwater quality, surface water, traditional land and resource use, vegetation
- Invited us back to keep the community informed

## Next Meetings / Things Happening with ERFN



- Agreement negotiation meeting end of October:
  - Financials, business, environment
  - Keep momentum moving forward
- Annual information to ERFN about success / challenges with the Exploration Agreement implementation
- Proposed engagement meeting in January, 2022 regarding predicted environmental effects from the Project
- Ongoing work with Shared Value Solutions / English River First Nation and inputs into the Environmental Impact Statement



**Event:** English River First Nation Chief and Council & Nuhtsiye-kwi Benéne Committee (Ancestral Lands Committee)

**Date:** October 14, 2021, 10:00am to 11:30

**Attendees:** **Denison:** Andy Yackulic, Carolanne Inglis-McQuay, Janna Switzer, Chad Sorba, Mike Dawe

**ERFN:** Chief and Councillors, Environment and culture monitor

**Committee members**

**Denison invited guest:** CanNorth

**Via Zoom:** <https://us02web.zoom.us/j/84767630538?pwd=R3dXbFRpYVUyeGVhb3ErTFI0QXlpZz09>

## Meeting Notes

### Topics

- Overview of 2022 Exploration Permits Applications: Denison
- Presentation by Environment & Cultural Monitor on 2021 Monitoring Activities: ERFN
- Update on Wheeler River Project: Denison
- Reporting Back to ERFN on Community Meeting in March, 2021: Denison
- Wheeler River Project - Heritage Management Protocols: CanNorth
- Next Meeting, next topics

### 2022 Exploration Permits

The following proposed activities were presented:

- 1) Ford Lake Denison
  - o Based out of Wheeler River camp or temp camp
  - o Same location as '21 geophysical program
  - o 12-14 people
  - o Potential for daily helicopter flights
  - o No agreements signed for contracts
  - o Groceries/fuel from Beauval
- 2) Bachman/Crawford Lake Denison
  - o Ground geo survey
  - o Winter 2022
  - o Likely camp at Phillips Lake
  - o 10-14 persons
  - o No agreements signed for contracts
  - o Groceries/fuel from Beauval
- 3) Waterbury Lake Denison
  - o Geo survey
  - o 24 km line cutting - 18km surveying - crews at Points North
  - o Likely diamond drill
  - o 20 drill holes
  - o Outside ERFN territory
  - o No agreements signed for contracts

### ERFN Identified Areas of Concern / Interest

- 1) For airborne geophysics work, key area of ERFN concerns / interest is:
  - a. Understanding the flight paths (location) and timing to confirm that the activities are not happening within 100km of the ERFN culture camp (km167 on highway 914) during the end of August / September when moose hunting is occurring around km167 on highway 914
  - b. Confirmation that the fuel storage is primarily located at the flight centre (Points North or other) and that all temporary fuel storage is on lined containment and is removed at the end of the activities
- 2) For line-cutting activities, key area of ERFN concerns / interest is:
  - a. Ensuring all line-cutting contractors are utilizing ERFN members for labour on the activities, where appropriate
- 3) Generally, key area of ERFN concerns / interest is:
  - a. Use of ERFN-owned businesses wherever possible (i.e. Beauval General Store, Polar oils, etc)

### Denison response to the above-identified areas of ERFN concern / interest:

1. a) All proposed airborne geophysics work is planned to occur outside the identified August / September moose -----hunting timeframe, in addition to being located more than 100km away from the ERFN Culture Camp at km167
  - b) All primary fuel storage for airborne activities is located at the flight centre. Any temporary fuel storage is located -----in accordance with the Best Management Practices for temporary fuel storage, on secondary containment and -----removed following the activities
2. a) Denison will continue to ensure that contractors connect with ERFN regarding potential line-cutting labour opportunities, in a similar fashion to the efforts made during the 2021 season. Further, Denison will continue to work with ERFN to identify future opportunities regarding ownership of line-cutting companies, recognizing this is a longer-term goal.
3. a) Denison has a general commitment to maximize the use of ERFN-owned businesses, and more specifically, the Beauval General Store where it makes sense to do so. This is ongoing and memorialized between the Parties

### Presentation by Environment & Cultural Monitor on 2021 Monitoring Activities: ERFN

- Recommendations and observations can be found in the Report prepared by ERFN Environmental and Cultural Monitor.
- Denison thanks Environmental and Cultural Monitory for being the first to 'blaze the trail' for us

- ERFN should congratulate Denison for minimal environmental disturbance. The limiting of disturbance and having spill kits available quickly.
- Some recommendations made by Environmental and Cultural Monitor are more reflective of an operating site, and Denison is somewhere between general exploration and an operating site, so we consider some of the recommendations as being appropriate for guiding us when we become an operating site

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#### **Wheeler River 2021 and Planned 2022 Activities: Denison**

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- Overview provided of the work undertaken in the field during 2021 and planned for 2022, including an in-ground lixiviant test
  - 2022 is planned to include the Environment & Cultural Monitor as a significant role
- 

#### **Wheeler River Project - Heritage Management Protocols: CanNorth**

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An overview was provided regarding the history of work undertaken at the Wheeler River site area (once done in 2017; further work done in 2019) – overall two artifacts were found

- Question: Artifacts become property of the Crown? That doesn't seem right, that the Nation doesn't get to keep the artifact
    - Response: Yes, this is the case. But the Province is open to Indigenous protocols regarding storage of the artifact, including permanent loan to the Nation
  - Question: What's the process for repatriation?
    - Response: It would begin with discussions between the Professional Archaeologist, ERFN, the Monitor and Denison
    - The previous curator of the Royal Saskatchewan Museum has been open to FN protocols and repatriation protocols, and actively pursuing repatriation
    - Commitment: ERFN and Denison's Consultant to discuss potential plan of action if any artifact discovery/repatriation
- 

#### **General Comments**

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ERFN is still looking forward to a site tour

**Denison and Pinehouse Correspondence Notes****November 24, 2021**

**Denison:** Please find attached correspondence from Mr. David Cates, President and CEO of Denison Mines regarding next steps between Denison Mines and Kineepik Métis Local #9. We look forward to your response at your convenience.

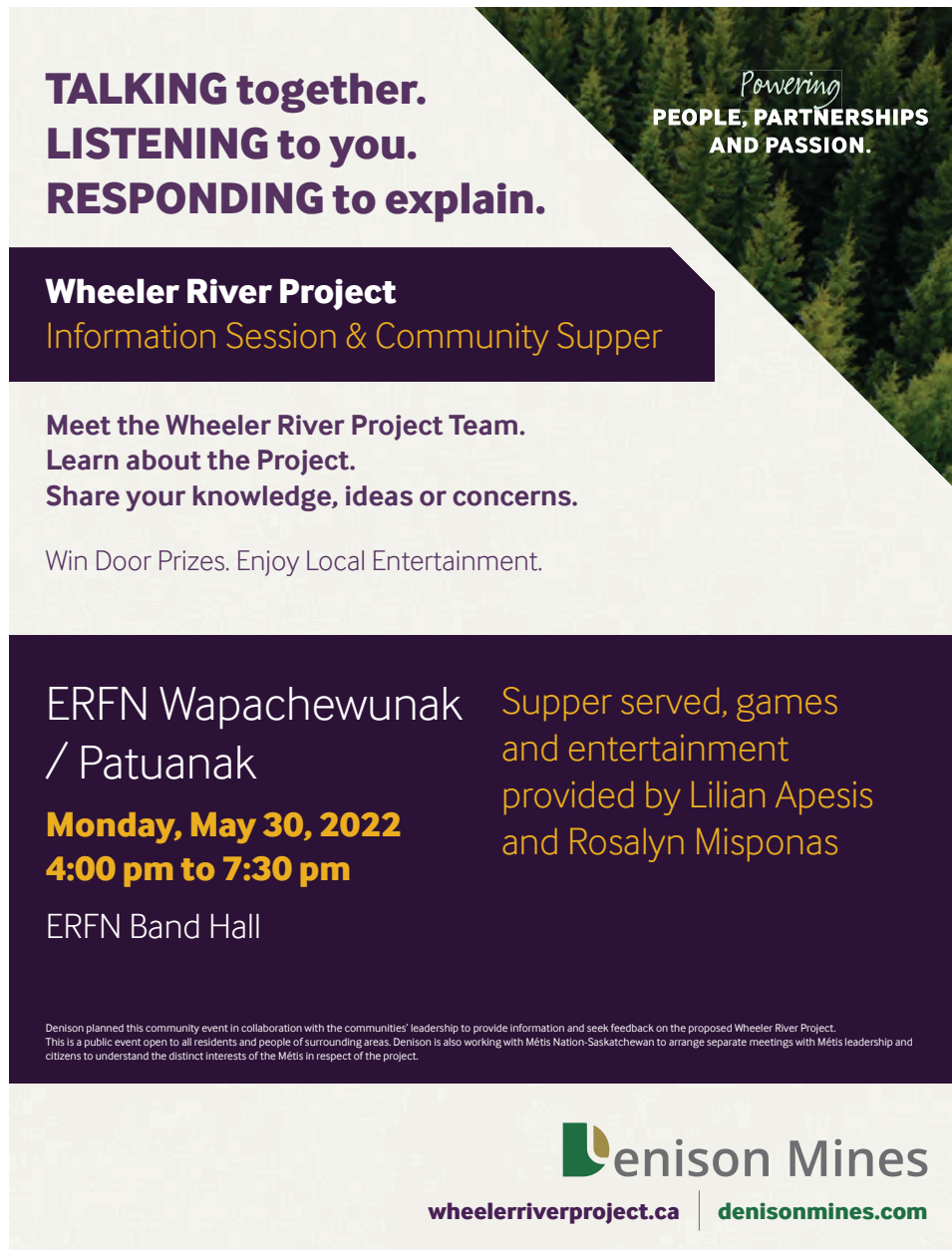
**KML Environment, Education, and Training Manager:** Thank you for this. First question about milling ore. I asked about the McArthur River to Cigar Road and you indicated this project was not part of that process. Should this project move to production where is Denison planning to mill the ore? I notice the province is starting consultation for the 914 road extension.

**November 25, 2021**

**Denison:** All ore produced from the ISR operation at Wheeler will be produced onsite in a production facility. It will be smaller than a full mill, primarily just the back end of a conventional mill. For the ISR operation, no need for the road between McArthur and Cigar.



## Poster Ad



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LISTENING to you.  
RESPONDING to explain.**

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**PEOPLE, PARTNERSHIPS  
AND PASSION.**

**Wheeler River Project**  
Information Session & Community Supper

Meet the Wheeler River Project Team.  
Learn about the Project.  
Share your knowledge, ideas or concerns.

Win Door Prizes. Enjoy Local Entertainment.

ERFN Wapachewunak / Patuanak  
**Monday, May 30, 2022**  
**4:00 pm to 7:30 pm**  
ERFN Band Hall

Supper served, games and entertainment provided by Lilian Apesis and Rosalyn Misponas

Denison planned this community event in collaboration with the communities' leadership to provide information and seek feedback on the proposed Wheeler River Project. This is a public event open to all residents and people of surrounding areas. Denison is also 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.

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wheellerriverproject.ca | denisonmines.com

## Facebook Ad



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Learn about the Project.  
Share your knowledge, ideas or concerns.**

Supper served, games, door prizes and local entertainment provided.

**Denison Mines**  
wheellerriverproject.ca | denisonmines.com

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## At the door handout



### What we heard from residents of English River First Nation and Region

We wanted to make sure that community members and leadership are aware of the proposed project, the plans for the future, the opportunities for the community, and to also give an opportunity to the project's provincial (Saskatchewan Ministry of Environment) and federal (Canadian Nuclear Safety Commission) regulators to participate and introduce themselves.

### Wheeler River Project in a nutshell

The Wheeler River Project is located 35 km north-east of the Key Lake mill and 35 km southwest of the McArthur River uranium mine in the south-eastern portion of the Athabasca Basin region.

This proposed uranium mining project will use the In Situ Recovery (ISR) mining method, which is different than any of the existing uranium mines in the Athabasca Basin region - all activities occur at the surface, meaning there are no shafts/underground workings, no open pits, and no major earthworks. While new to the Athabasca Basin, ISR mining is the most common uranium mining method globally. A 10-metre-thick freeze wall separates the mining areas from the surrounding ground water. A solution is injected into the orebody to dissolve the uranium in place (in situ) and the solution carrying the dissolved uranium is pumped to surface where the uranium is extracted from the solution. The same solution is then pumped back into the ground to dissolve more uranium and so on in a closed loop. With this method there is no production of tailings and no large waste rock piles.

#### Tell Us More

Denison is committed to engaging with our neighbours and invite you to contact us to share ideas or concerns with the Wheeler River Project team. You can also contact our team to request information or offer your services.

Email: [WheelerRiverInfo@denisonmines.com](mailto:WheelerRiverInfo@denisonmines.com)  
Tel: 306-652-8200  
Website: [www.denisonmines.com](http://www.denisonmines.com)



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### Community Insight

During the meeting participants asked many questions and also provided valuable insight in responding to the follow-up survey. Here are the main points made by ERFN members:

Of all 26 interconnected valued components (VCs), which are the environmental or social aspects that may be impacted by a project, you indicated that the following were most important:

- Air quality
- Community well-being
- Employment
- Fish
- Fish habitat and aquatic plants
- Groundwater quality
- Surface water
- Traditional land and resource use
- Vegetation

You also mentioned that you would like the Wheeler River Project team to consider the following additional VCs during its assessment:

- Consultation
- Joint ventures
- Knowledge of resource management
- Longevity of the land
- Traditional food
- Working relationships (particularly between ERFN and Denison)

You invited the Wheeler project team to continue its engagement activities with ERFN members and leadership with more consistent communication and updates to ensure that the project is being completed with integrity and respect. And more specifically you mentioned that "increased communications (quarterly) would be beneficial to the community, possibly through a community liaison." You indicated that the use of online engagement is a concern for many community members, particularly given that Elders may not be comfortable with online engagement and their opinions are very important. You also mentioned that for engagement to be inclusive a translator should be made available.

You also told us some of your worries and concerns about the project. These are the main points:

- Use of acids in ISR mining
- Storage and shipping of the yellowcake and other harmful substances
- Impact on wildlife in the area around the mine
- Potential negative impacts to community health
- Possibility of the groundwater or the land being impacted
- Concerns about residual uranium leaking into the groundwater after the removal of the freeze wall
- Concerns about inadequate reclamation being completed
- Potential impacts to the people who use the area for traditional activities, and
- Potential for long-term impacts to the land – not helpful for the community as it will harm the earth, which is needed for survival

You acknowledged some of the opportunities you are looking forward to with this project, including:

- Employment opportunities
- Opportunities for local companies (TRON and Des Nedhe)
- Possibility of royalties for the community • Potential for community development and a collaborative agreement
- Training opportunities

#### Tell Us More

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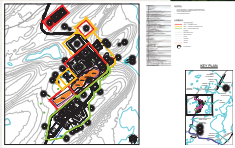
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## Wheeler River Project Overview

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 Nuhenê.

Activity	Responsible Party	Start Date	End Date	Status
Project Initiation	Denison Mines	2018	2019	Completed
Environmental Assessment	Denison Mines	2019	2020	In Progress
Regulatory Process	Denison Mines	2020	2021	In Progress
Construction	Denison Mines	2021	2022	Planned
Operation	Denison Mines	2022	2023	Planned
Decommissioning	Denison Mines	2023	2024	Planned



### Key Advantages of ISR Mining

- Small surface footprint
- No open-pit workings
- No underground workings
- Low energy consumption
- Small volume of treated effluent
- Small volumes of clean waste rock (landstone drill cores from wellfield drilling)
- Small volume of treated water precipitates
- Small volumes of waste rock (investigated drill cuttings from wellfield development)

### Considerations of ISR Mining

- Introduces opportunity to develop potential mineral deposits not considered economically viable by conventional mining methods
- Protection of surrounding groundwater regime
- Significant evaluation efforts required to confirm ISR mining method is viable for high grade phosphate deposit

## 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
- Feedwater obtained from shallow groundwater or surface water
- Mining solution expected to be reused over and over, wherever possible
- Use of rotary drilling to create wellfield – most common method of well drilling in Saskatchewan

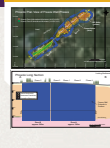
### ISR Process Overview



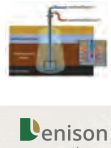
### Ground Freezing – Freeze Wall

- Ground freezing used to prevent groundwater 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 (antifreeze 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-circled in a closed loop system – similar to how a community hot tank is kept warm
- Commonly used technology at McArthur River and Cigar Lake

### Proposed Freeze Wall



### Typical Freeze Pipe



## Wheeler River Regulatory Process

### Federal Regulators

- Lead: Canadian Nuclear Safety Commission (CNSC)
  - Review and approve Environmental Impact Statement (EIS) and licence applications
  - Mandate to protect health, safety and security of Canadians and the environment
- Main authorizations granted include:
- License to Prepare Site and Construct
  - License 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:
- Permits to Operate a Pollutant Control Facility
  - Surface Licence 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



## 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 is important to consult with northern communities to identify appropriate valued components.

- English River First Nation, Kinesteg Métis Local #9, Picheux Lake, Lac la Crosse, Patawask, and the seven Athabasca Communities represented by the 14th Métis Lands and Resources Office
- VCs were determined to be Air, Human, 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
- Decommissioning
- Water Management
- Waste 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. Baseline studies must be determined. These are the effects left after mitigation measures. Then, we answer questions about the residual adverse effect of each VC.

- Magnitude: How big is the effect?
- Geographic extent: When 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, 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.

## 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 land 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)

## Wheeler River Cumulative Effects Assessment

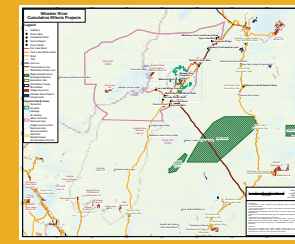
A Cumulative Effects Assessment (CEA) is completed to ensure that the incremental effects from multiple activities in an area (environment, human health, land use, etc.) are considered together. Project activities can interact with Valued Components when interactions cause Valued Components' conditions 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



## Wheeler River VCs: Ground, Terrain and Soil

### 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
- Unsettled spills, leaks

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 control 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 respect to landscape features (dips, erosion) and surface drainage patterns

### Conclusions

- Decommissioning phase to restore the landscape to safe, stable and self-sustaining landscape
- Effects are anticipated to be:
  - Low magnitude – within range of natural variations
  - Local – limited to areas disturbed by the project, but not including post-decommissioning
  - Medium-term – up to, but not including post-decommissioning
- Not significant – residual effects are not expected to alter VC integrity and sustainability nor their ability to contribute to the environment

## Wheeler River VCs: Wildlife and Birds

### Environmental Assessment Considerations

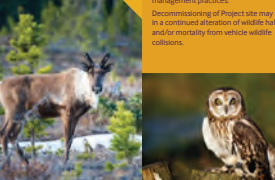
- Populations and health of wildlife including:
  - Grizzly Bear, Moose, Woodland Caribou
  - Furbearers: Wolverine, Mink, Muskrat
  - Birds: Bald Eagle, Osprey, Common Nighthawk, Short Eared Owl, Redpoll, Dove, Fish Crow, Kingfisher, Yellow Rail, Rusty Blackbird, Olive-backed Flycatcher

### 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
  - Entanglement in facilities
  - Exposure to substances in dust
  - Release of Project-related treated effluent
  - Spills of construction 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 nests, burrows, holes, dens, and other habitat
- Measures 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 containing pipelines – waste ponds and pads, landfill
- Long-term for woodlot carbon and migratory breeding birds – Alteration of habitat and highly mobile wildlife avoid wildlife collisions through all phases of project and 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/aircraft wildlife collisions reported during all phases of project
- Not significant – residual effects are not expected to alter habitat integrity nor wildlife and bird regional populations sustainability

## Wheeler River VC: Aquatic Environment

### 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, dipteran 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 Wheeler Lake
  - Reducing effluent to Wheeler 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 worksite conducting work during low flow periods, and conducting work away from fish 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
- Stagger construction and operation
- Station showers to limit erosion and sedimentation by limiting clearing of vegetation and regrading with native species, whenever possible
- Maintaining routes used for fish passage by designing water intake and headwater discharge locations to protect fish, fish movements, and fish habitat
- Planting to avoid chemicals entering waterways during rain-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 fish populations





## 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 context, 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
- Abundance of Traffic
- Increased demand on community infrastructure and services


### Mitigation Measures

- Development of agreements with communities (support)
- Prioritize Indigenous and non-Indigenous communities of interest (employment, training, and business, wherever possible)
- Implement procurement approach focused on 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 residents/hedge operator – seasonal access
- People fishing/hunting/trapping/gathering/forewood/skiing/series – 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 metal
- 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
- Terrestrial Invertebrates – Earthworm
- 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
- Keweenaw Mills Local #9 (Pewasauk)
- Miles Nation – Saskatchewan
- A La Bore Mills Local 21 (Be a la Croix)
- Sopoke Mills Local 32 (Beauval)
- Pesumuk Mills Local 82 (Pisumuk)
- Northern Village of Pisumuk
- Northern Village of Be a la Croix
- Northern Village of Beauval

Other communities, organizations and groups of interest:

- Lac la Poudre Indian Band
- Black River First Nation
- Buffalo River First Nation
- Hatchet Lake First Nation
- Black Lake First Nation
- Ford du Lac First Nation
- Miles Nation – Saskatchewan
- Y'a Ya Naik Land and Resource Office
- Prince Albert Grand Council
- Medicine Lake Tribal Council
- Commercial trappers
- Commercial fishers
- Commercial lodges
- Cabin and house owners

### Thank You, Bobby John

Bobby John died, tragically, before he was able to see the Wheeler River Project and its potential. Bobby John became someone our Project team relied on for insight on the area, for feedback on the Project proposal, for help with finding wildlife and for assistance for our field teams, coming through the bush and river. 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 general 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 effluent discharge location
  - Mining method
  - Design changes to treating effluent 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:

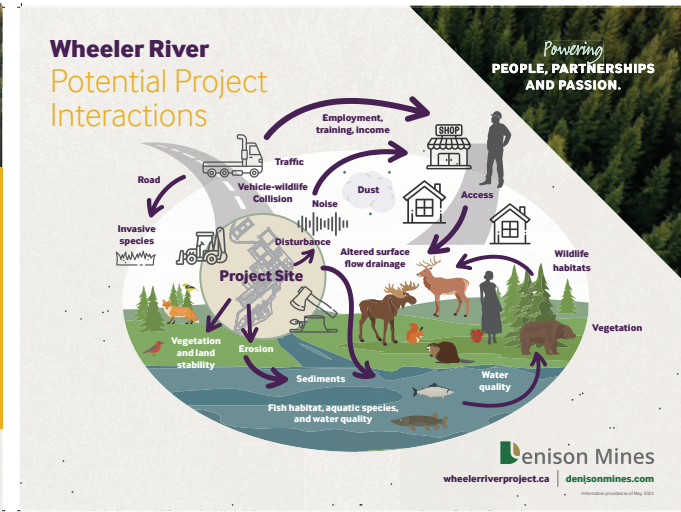
- Donations to community organizations
- Sponsorships of community events
- Scholarships or in-kind support of education and field trips
- Direct agreements with specific Indigenous communities

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

- Entered into an Exploration Agreement with English River First Nation
- Miles Nation Saskatchewan Region 1 South Bay Gathering
- Saskatoon Elder Group and their market garden initiative
- Pisumuk Lake Hockey Tournament
- Improvements to the English River First Nation Culture Camp at the Mackenzie Reserve at Yellowknife
- Many Christmas initiatives in this region, including those in Beauval, Be a la Croix, and the Harvest of Pisumuk



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Information provided as of May, 2022



## Denison Open House in Patuanak English River First Nation

Date: May 30, 2022

### Dialogue Notes

**Comment:** I used to work as a prospector; I know those lands up there all over the place. You need to make sure you protect the land.

**Comment:** At km 60 (of the Key Lake Road), last summer there were all sorts of pipes along the road. Was that related to your Project?

**Denison:** No, not sure what that was about but it was not related to our Project.

**Comment:** Would you treat the Indigenous people as if they owned the land? We don't own the land technically but it is our land. You need to treat us as if we own the land.

**Denison:** We are working with ERFN understanding that we are operating in ERFN traditional territory, and aim to develop a relationship that reflects our respect of the land.

**Comment:** How long is the Project?

**Denison:** 2 years construction, 10 years operation, 5 years decommissioning. The Environmental Assessment is assessing as if the operations will be 15 years, to be conservative.

**Comment:** I worked at [redacted]; I saw how they dealt with the contaminated waste, they just put it into an open pit and buried it. What are you going to do with the materials left over that are waste?

**Denison:** As much as possible we will be removing materials off site because we don't have open pits to put materials into. We will have a contaminated landfill that will remain and will have some materials left behind

**Comment:** You need to consider more Dene in your meetings. These posters are intimidating to people who are Dene speakers or are illiterate.

**Denison:** I hear you. We've translated the video into Dene, and have a Dene translator here but we know we can do more about this.

**Comment:** Who is benefitting from the operation? Is ERFN going to benefit from this Project?

**Denison:** Our plan is to work collaboratively with ERFN to ensure that ERFN feels as though this is a good project for the Nation.

**Comment:** What is your plan for training and for young people? Are you going to hire people who don't have their Grade 12

**Denison:** Our plan is to ensure that we don't encourage people not to complete high school. So yes, our overall objective will be for them to complete Grade 12. If we have people who are older and haven't completed high school, we will evaluate that on a case by case basis.

**Comment:** What happens after the freeze wall is turned off?

**Denison:** The freeze wall will stay on for the duration of the operational phases and into the reclamation phases to ensure proper restoration of the contained groundwater prior to turning the freeze wall off and restoring the natural groundwater flow to the area.

**Comment:** How are all the ponds lined? Is there concern for breaches of solutions to near surface groundwaters?

**Denison:** Ponds are double lined with HDPE liners with leak detection and collection systems which allow for collection of any migrating fluids prior to any form leak.

**Comment:** How do you contain the brine solution in the freeze holes?

**Denison:** The CaCl brine is fully contained within a double lined piping system. Each well will have integrity pressure tests prior to commissioning to ensure containment. Additional leak detection and monitoring systems are in place within and surrounding the freeze holes which can be instrumented with pumps to collect any brine fluid migrations.

**Comment:** What is going on with the laydown of pipes at KM 65 north of Pinehouse? Is this associated with the Wheeler River Project?

**Denison:** Denison is unaware of the activities at Km 65 but can confirm that they are not associated with the Wheeler River Project.

**Comment:** Which drilling company do you use and why?

**Denison:** Denison has primarily used Hy-Tech drilling and River Drilling on the Wheeler River Project. (The individual asking the question complimented the use of Hy-tech and said that they have an excellent safety and environmental reputation).

**Comment:** Do you need to backfill the ore zone after it is mined to prevent ground subsidence?

**Denison:** The mining cavity itself is not backfilled. The individual wells that intersect the deposit are grouted upon decommissioning which in turn act as rock bolts to further stabilize the area around the deposit. Further ground subsidence modelling was conducted which demonstrated that in a conservative scenario the deposit area may see a 7-10cm subsidence over the 400 meter vertical profile. Effects were determined to be negligible.

**Comment:** Subsurface reclamation modelling: How accurate is it?

**Denison:** Modelling and field programs go hand in hand; where Denison has gradually conducted field investigation to collect physical measurements from the ground which aid in calibrating a model, further verifying its results. Additional field calibrated models continue to provide more and more confidence in the reclamation models as they occur.

**Comment:** Is ISR just like the other mines in the north? If so, they are grouped and considered to have the same environmental liability.

**Denison:** Individual commented that a road closure south of Key Lake would be going up to halt operations in a few weeks unless his previous unaddressed are attended to.

**Comment:** Many community members are illiterate, or do not speak English. You should consider printing the handouts in languages other than English, and simplifying the language used on the posters

**Denison:** Noted

**Comment:** "How was the ore body found?"

**Comment:** Should consider having headphones down on a table for the video that is playing on the TV.

**Denison:** Noted

**Comment:** How will training for jobs be implemented?

**Denison:** Training methodology will be determined through consultation and collaboration with communities of interest.

**Comment:** Complaints about Cameco. Mention of road block. Mention of dissatisfaction with chief and council.

**Comment:** After uranium is removed, how do you fill the voids?

**Denison:** Back fill holes with concrete.

**Comment:** Will the ground collapse from the voids?

**Denison:** It's a long way down. 7400m, would only see small movements at surface, if any.

**Comment:** Community member reflected on family history and land use.

**Denison:** Indicated that we obtained land use information from the community and working with band council on how compensation for land use would work.

**Comment:** What's the compensation for family? Mother is still alive and would like to see her get compensation.

**Denison:** Not sure how we would work through that as our main conduit to community is through the Council.

**Comment:** What's the location of the project?

**Denison:** The Wheeler project is located just off highway 914 between Key Lake and McArthur River.

**Comment:** What's the timeline (construction and operation)

**Denison:** Construction is estimated to take 2 years, and production is estimated to last for 10-15 years.

**Comment:** How long will it take until you're in production?

**Denison:** Likely occurring in approximately 5-7 years.

**Comment:** What's the grade of the uranium?

**Denison:** High 19.1%

**Comment:** Can you show proof that ISR works?

**Denison:** ISR has successful in Russia and throughout the US. At the Wheeler River site Denison has been running various field tests to ensure the ISR method will work. We're received positive results on our testing.

**Comment:** What about agreements? The communities deserve more equity, resource sharing and employment. "There's big money in the ground and the communities deserve more, it's our land. If not, I'll block the road. That's what my father told me to do"

**Denison:** Denison continues to discuss aspects of agreements with your Chief and Council.

**Comment:** If you pump out the water (water cycling through the ISR system) what happens?

**Denison:** Any water pumped will be sent through the water treatment plant on site.



## Wheeler River Project Survey

This survey follows a survey conducted in March 2021 regarding the Wheeler River Project and the valued components to be assessed as part of the environmental assessment.

The purpose of this 2022 survey is to offer the opportunity to provide feedback to Denison Mines on the preliminary findings for the Wheeler River Project environmental assessment. Results will be used to help Denison Mines ensure they are meeting community needs and interests in relation to the assessment outcomes. Your feedback helps us understand what is most important to you, what the community values, and what topics people are most interested in in relation to the Wheeler River Project environmental assessment.

There are several benefits of sharing your thoughts in the survey questionnaire. Your input will help Denison Mines focus on environmental components, concerns or topics in relation to the Wheeler River Project environmental assessment that matter most to you.

If you choose to leave your name and contact information at the conclusion of the survey, you will be entered into a prize draw for one of five \$100 VISA gift cards. Participation in the draw is optional and only those who complete the survey will be entered in the draw.

Participation is voluntary, and you may choose to exit the survey at any point. If you agree to participate, it will require approximately 10 minutes of your time to provide feedback on the preliminary findings of the Wheeler River Project environmental assessment. During the survey we will ask you some questions including your age, residence, if you identify as an Indigenous person, and how you heard about the survey. Finally, in order to be entered into the prize draw, you must provide your name and contact information.

Providing your name and contact information is optional. All information you share in this survey questionnaire will be kept strictly confidential and your name will not be associated with the data we collect. Your identity will remain confidential in all publications and public presentations related to this research.

**If you have any questions or concerns about this survey questionnaire, please contact [WheelerRiverInfo@denisonmines.com](mailto:WheelerRiverInfo@denisonmines.com)**

\* 1. By checking this box, you confirm that you understand the purpose of the survey, how the information you share will be used, and that participation in the survey is voluntary.






- ☐ I confirm that I understand the purpose of this survey, how the information will be shared, and that participation is voluntary
- ☐ I DO NOT feel comfortable proceeding with this survey and would like to exit

The Fact Sheets below provide a general overview of the of Wheeler River Project and the related environmental assessment.

# 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 historic territory of English River First Nation in the homeland of the Métis and across Subarctic.



**Key Advantages of USR Mining**

- Small surface footprint
- No construction of tailing facility
- No underground working
- Long-life mine
- Lowest cost of production
- Small volume of waste with low tailings
- Small volume of water used
- Small volume of water used
- Small volume of water used
- Small volume of water used

**Considerations of USR Mining**

- Requirement of environmental monitoring
- Requirement of environmental monitoring
- Requirement of environmental monitoring
- Requirement of environmental monitoring

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[illegible][illegible]

## Wheeler River Project-Community Engagement Spring 2022

## Section 1: Tell us about yourself!

We want to make sure we are hearing from a diverse group of people from your community, please fill out the following questions to help us determine if there are any voices we haven't heard from yet.

2. Age:

- ☐ 0-15  
☐ 16-34  
☐ 35-64  
☐ 65+

3. Do you identify as an Indigenous person (First Nations, Métis, or Inuit)? Answers to this question are entirely voluntary and not required.

- ☐ Prefer not to answer  
☐ Yes (if yes, then: Please select from the following which best applies to you.)  
☐ First Nation  
☐ Métis  
☐ Inuit  
☐ Non-status  
☐ No

4. Where do you live most of the year:

- ☐ ERFN Patuanak  
☐ Hamlet of Patuanak  
☐ ERFN La Plonge  
☐ Village of Beauval  
☐ Village of Pinehouse Lake  
☐ Other  
☐ Prefer no to answer

Please identify which other community you are from

5. How did you hear about this survey?

- ☐ Facebook  
☐ Poster  
☐ Radio  
☐ Word of Mouth  
☐ Other

6. Which of the following presentations did you attend? Check all that apply.

- ☐ Community Meeting  
☐ Leadership Meeting  
☐ Prefer not to say  
☐ None of the above

## Wheeler River Project-Community Engagement Spring 2022

## Section 2: Provide your feedback

Denison is in the process of completing its environmental assessment for the Wheeler River Project and would like your feedback on its preliminary findings. In the following pages, you will find a summary of the key conclusions of the assessment, and several questions.

**The assessment considered the potential effects to the following topics and components:**

**Soil**

Soil Nutrients, Soil Quantity and Quality

**Water**

Surface Water Quality, Surface Water Quantity, Aquatic and Fish Habitats, Fish Health, Sediment Quality, Sediment Quantity, Benthic Invertebrates, Groundwater Quality, Groundwater Quantity

**Air**

Air Quality, Greenhouse Gas Emissions, Noise

**Wildlife and Plants**

Vegetation and Ecosystems, Plant Species at Risk, Wetlands, Hoofed Mammals, Fur Bearing Animals, Small Mammals, Raptors, Migratory Breeding Birds, Bird Species at Risk

**Terrain**

Landform, Ground, Soil, Geology

**Land Use**

Indigenous Land and Resource Use, Other Land and Resource Use, Heritage Resources

**Humans**

Human Health and Safety, Worker Health and Safety, Cultural Expression, Community Services and Infrastructure, Community Well-Being, Economy



**Overall, through Project design to avoid potential impacts to the environment, and well understood mitigation measures to minimize the predicted effects, Denison's assessment has concluded that the effects to Valued Components can be effectively managed (i.e. Not Significant). Some of the key mitigations include:**

#### Reducing

- The area of disturbance caused by the project
- The amount of water that is treated and released to the environment by reusing mining solution and process water

#### Developing

- Management plans for waste, water, fuel, Woodland Caribou, sediment and erosion, and emergencies
- Agreements with communities to maximize Project benefits, consideration of independent community monitoring, and provide support for community priorities

#### Using

- Noise reducing equipment
- Secondary containment of tanks and pipelines in the event of an accidental leak or spill
- Sediment and erosion controls and surface water management features
- Dust controls and emission reduction measures

#### Avoiding

- Periods critical to wildlife (denning, breeding, calving, and migration) through scheduling of project activities

#### Progressive Reclamation

- Of the site including stockpiling and reusing materials disturbed during construction

7. Are there any topics of particular concern that Denison needs to pay special attention to?

8. Are there any things missing that Denison should consider to reduce the effects of the Project to the environment?

9. Are there any topics that you would like to see including in monitoring plans?

10. What additional information would be helpful for you to understand the Project and its potential impacts to people and the environment?



#### Wheeler River Project-Community Engagement Spring 2022

#### Section 3: Prize Draw Entry

**If you would like your name entered into a draw prize, please provide the following information**

11. Name

12. Phone number

13. Email address

14. Would you like us to add your email address to our mailing list to receive project updates?

Yes/No

☐ Yes

☐ No



#### Wheeler River Project-Community Engagement Spring 2022

**Thank You!**

**Thank you for completing the Wheeler River Project Community Engagement Survey. If you have any additional comments, questions or concerns please email [WheelerRiverInfo@denisonmines.com](mailto:WheelerRiverInfo@denisonmines.com)**



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AND PASSION.**

**Wheeler River Project**  
Information Session & Community Supper

ERFN Wapachewunak / Patuanak

**Monday, May 30, 2022**  
**4:00 pm to 7:30 pm**

ERFN Band Hall

*If you missed it!*

Denison planned this community event in collaboration with the communities' leadership to provide information and seek feedback on the proposed Wheeler River Project. This is a public event open to all residents and people of surrounding areas. Denison is also 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.

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## Poster Ad

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

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**PEOPLE, PARTNERSHIPS  
 AND PASSION.**

**Wheeler River Project**  
**Information Session & Community Supper**

Meet the Wheeler River Project Team.  
 Learn about the Project.  
 Share your knowledge, ideas or concerns.

Win Door Prizes. Enjoy Local Entertainment.

ERFN La Plonge /  
 Beauval

**Tuesday, May 31, 2022**  
**4:00 pm to 7:30 pm**

Beauval Recreation Centre  
 Main Gym

Supper served, games  
 and entertainment provided by  
 CAAMP Arts Saskatchewan –  
 Tristen Durocher and  
 students

Denison planned this community event in collaboration with the communities' leadership to provide information and seek feedback on the proposed Wheeler River Project. This is a public event open to all residents and people of surrounding areas. Denison is also 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.

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## Facebook Ad



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 **Denison Mines**

## TV Ad



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Beauval Recreation Centre  
 Main Gym

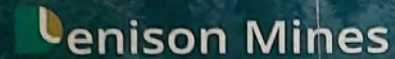
**Meet the Wheeler River Project Team.**  
**Learn about the Project.**  
**Share your knowledge, ideas or concerns.**

Supper served, games, door prizes and local entertainment provided.

 **Denison Mines**  
[wheelerriverproject.ca](http://wheelerriverproject.ca) | [denisonmines.com](http://denisonmines.com)

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WHEELER RIVER

## What we heard from residents of Beauval and region

We wanted to make sure that community members and leadership are aware of the proposed project, the plans for the future, the opportunities for the community, and to also give an opportunity to the project's provincial (Saskatchewan Ministry of Environment) and federal (Canadian Nuclear Safety Commission) regulators to participate and introduce themselves.

## Wheeler River Project in a nutshell

The Wheeler River Project is located 35 km north-east of the Key Lake mill and 35 km southwest of the McArthur River uranium mine in the south-eastern portion of the Athabasca Basin region.

This proposed uranium mining project will use the In Situ Recovery (ISR) mining method, which is different than any of the existing uranium mines in the Athabasca Basin region - all activities occur at the surface, meaning there are no shafts/underground workings, no open pits, and no major earthworks. While new to the Athabasca Basin, ISR mining is the most common uranium mining method globally. A 10-metre-thick freeze wall separates the mining areas from the surrounding ground water. A solution is injected into the orebody to dissolve the uranium in place (in situ) and the solution carrying the dissolved uranium is pumped to surface where the uranium is extracted from the solution. The same solution is then pumped back into the ground to dissolve more uranium and so on in a closed loop. With this method there is no production of tailings and no large waste rock piles.

### Tell Us More

Denison is committed to engaging with our neighbours and invite you to contact us to share ideas or concerns with the Wheeler River Project team. You can also contact our team to request information or offer your services.

Email: [WheelerRiverInfo@denisonmines.com](mailto:WheelerRiverInfo@denisonmines.com)

Tel: 306-652-8200

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



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## Community Insight

During the meeting participants asked many questions and also provided valuable insight in responding to the follow-up survey. Here are the main points made by community members:

Of all 26 interconnected valued components (VCs), which are the environmental or social aspects that may be impacted by a project, you indicated that the following were most important:

- Air quality
- Birds
- Employment and training
- Fish, their habitat and aquatic plants
- Local economy
- Soil
- Surface water and Groundwater quality
- Traditional land and resource use
- Vegetation

You acknowledged some of the opportunities you are looking forward to with this project, including the potential for:

- Training and increased employment and reduced unemployment
- Employee transportation to the site from the communities
- Establishing a legacy fund for the impacted communities

You also told us some of your worries and concerns about the project. These are the main points:

- The performance of environmental monitoring and the importance of having an outside, impartial body conducting the monitoring to ensure that the results can be trusted by the community
- The mistrust between community members and regulatory bodies and industry
- The impacts to mental health due to the development of the land
- The potential damage to the land as many people still live off the land
- The community's safety in view of the increase in traffic



### Tell Us More

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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 context, 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
- Abundance of Traffic
- Increased demand on community infrastructure and services

### Mitigation Measures

- Development of agreements with communities (support)
- Prioritize Indigenous and non-Indigenous communities of interest (employment, training, and business, wherever possible)
- Implement procurement approach focused on 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 decommissioning
- 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 residents/hedge operator – seasonal access
- People fishing/hunting/trapping/gathering/forewood/skiing/series – 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 metal
- 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
- Terrestrial Invertebrates – Earthworm
- 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.

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

- English River First Nation
- Kawachik Mito Local #9 (Pitmecca)
- Mitis Nation – Saskatchewan
- A La Borne Mito Local 21 (Be a la Croix)
- Sipiwik Mito Local 32 (Beauval)
- Patawauk Mito Local 82 (Patawauk)
- Northern Village of Pitmecca
- Northern Village of Be a la Croix
- Northern Village of Beauval

Other communities, organizations and groups of interest:

- Lac la Poudre Indian Band
- Black River First Nation
- Buffalo River First Nation
- Hatchet Lake First Nation
- Black Lake First Nation
- Ford du Lac First Nation
- Mitis Nation – Saskatchewan
- Y'a Ya Nait Land and Resource Office
- Prince Albert Grand Council
- Medicine Lake First Council
- Commercial trappers
- Commercial fishers
- Commercial lodges
- Cabin and house owners

### Thank You, Bobby John

Bobby John died, tragically, before he was able to see the Wheeler River Project and its potential. Bobby John became someone our Project team relied on for insight on the area, for feedback on the Project proposal, for help with finding wildlife and for assistance for our field teams, coming through the bush and river. We will not forget Bobby John's contributions.

### Our Support of Communities

Denison's support of communities can take various forms:

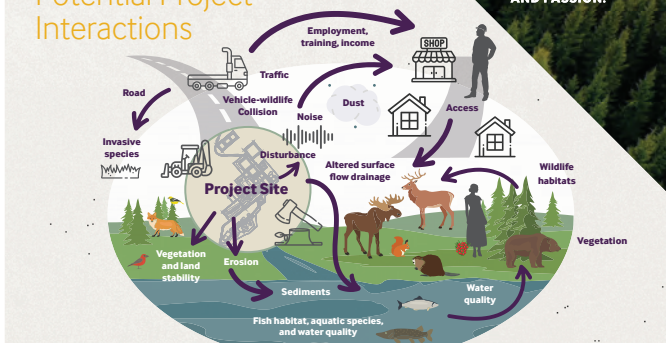
- Donations to community organizations
- Sponsorships of community events
- Scholarships or in-kind support of education and field trips
- Direct agreements with specific Indigenous communities

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

- Entered into an Exploration Agreement with English River First Nation
- Mitis Nation Saskatchewan Region 1 South Bay Gathering
- Saskatoon Elder Group and their market garden initiative
- Provisioned Lake Hockey tournament
- Improvements to the English River First Nation Culture Camp at the Mackenzie Reserve at Valhalla
- Many Christmas initiatives in the region, including those in Beauval, Be a la Croix, and the Harvest of Pitmecca

## Wheeler River Potential Project Interactions

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Information provided as of May, 2022

## Denison Open House in La Plonge English River First Nation

Date: May 31, 2022

### Dialogue Notes

**Comment:** How does the freeze wall affect the natural groundwater flow?

**Denison:** The freeze wall is temporary in nature. During operations the groundwater will naturally divert around the freeze wall itself. Once decommissioned the free wall will be turned off and allow the groundwater to establish its original flow pathway directly through the deposit area.

**Comment:** If the ground water quality does not meet acceptable standards at the point of the defined reclamation phase ,how do we ensure monitoring will continue?

**Denison:** Modelling is completed well in advance to project approvals which guide the reclamation targets and timelines. If targets are not met during the defined periods additional groundwater reclamation will continue until acceptable standards are met.

**Comment:** Do you need to backfill the ore zone after it is mined to prevent ground subsidence?

**Denison:** The mining cavity itself it not backfilled. The individual wells that intersect the deposit are grouted upon decommissioning which in turn act as rock bolts to further stabilize the area around the deposit. Further ground subsidence modelling was conducted which demonstrated that in a conservative scenario the deposit area may see a 7-10cm subsidence over the 400-meter vertical profile. Effects were determined to be negligible.

**Comment:** What kind of revenue are you going to generate? How much will go back to the Nation?

**Denison:** We are going through the Feasibility Report now which will further refine the ranges of expected profits / revenue from the operation. For what will go back to the Nation, we are actively working on this in negotiations right now on with ERFN, so the answer is to be determined.

**Comment:** Will you be using fracking?

**Denison:** No. No fracking will be used. It is a different process than fracking that doesn't involve high pressures (such as with fracking)

**Comment:** This doesn't tell me much! (directed at potential project interactions poster/diagram)

**Denison:** It is a generalization. It graphically shows interactions between the project, environment, and other aspects. It is meant for people that don't understand the general concepts.

**Comment:** Questions asked surrounding project schedule, state of project, approximate time when operation will begin- in relation to regulatory processes

**Denison:** Utilized "Regulatory Process" poster board to explain-indicated the "Wheeler River Project Process Status" to where Denison is in the process.

**Comment:** Questions asked surrounding the Saskatchewan Ministry of Environment and Canadian Nuclear Safety Commission (steps involved and licenses required)

**Denison:** Utilized "Regulatory Process" poster board to explain regulators, significant licenses, and requirements to fulfill. Referred to SkMOE and CNSC regulators that were present.



## Wheeler River Project Survey

This survey follows a survey conducted in March 2021 regarding the Wheeler River Project and the valued components to be assessed as part of the environmental assessment.

The purpose of this 2022 survey is to offer the opportunity to provide feedback to Denison Mines on the preliminary findings for the Wheeler River Project environmental assessment. Results will be used to help Denison Mines ensure they are meeting community needs and interests in relation to the assessment outcomes. Your feedback helps us understand what is most important to you, what the community values, and what topics people are most interested in relation to the Wheeler River Project environmental assessment.

There are several benefits of sharing your thoughts in the survey questionnaire. Your input will help Denison Mines focus on environmental components, concerns or topics in relation to the Wheeler River Project environmental assessment that matter most to you.

If you choose to leave your name and contact information at the conclusion of the survey, you will be entered into a prize draw for one of five \$100 VISA gift cards. Participation in the draw is optional and only those who complete the survey will be entered in the draw.

Participation is voluntary, and you may choose to exit the survey at any point. If you agree to participate, it will require approximately 10 minutes of your time to provide feedback on the preliminary findings of the Wheeler River Project environmental assessment. During the survey we will ask you some questions including your age, residence, if you identify as an Indigenous person, and how you heard about the survey. Finally, in order to be entered into the prize draw, you must provide your name and contact information.

Providing your name and contact information is optional. All information you share in this survey questionnaire will be kept strictly confidential and your name will not be associated with the data we collect. Your identity will remain confidential in all publications and public presentations related to this research.

**If you have any questions or concerns about this survey questionnaire, please contact [WheelerRiverInfo@denisonmines.com](mailto:WheelerRiverInfo@denisonmines.com)**

\* 1. By checking this box, you confirm that you understand the purpose of the survey, how the information you share will be used, and that participation in the survey is voluntary.

- ☐ I confirm that I understand the purpose of this survey, how the information will be shared, and that participation is voluntary
- ☐ I DO NOT feel comfortable proceeding with this survey and would like to exit

The Fact Sheets below provide a general overview of the of Wheeler River Project and the related environmental assessment.

# 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 rich historic territory of English River First Nations in the heartland of the Mistawasis and Assiniboine.

## Key Advantages of ESR Mining

- Small surface footprint
- No construction of drilling heady
- No underground workings, mining above Earth surface
- Unaffected to surface water
- Small volume of water effluent
- Small volume of waste rock, waste tailings in 30 ft from Earth surface
- Small volume of treated water generation
- Small volume of waste rock, intermediate off-site (no long-term waste development)

- Provides opportunity to explore potential for new resources and generate economic activity related to exploration, mining, and processing

## Considerations of ESR Mining

- Protection of surrounding groundwater regime
- Significant volume of water required for surface ESR mining infrastructure suitable for high-grade uranium treated

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## Wheeler River

# Project Technologies

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### In Situ Recovery

- Use an acidic or low pH mining solution to leach to extract dissolved gold
- Mining solution is a mixture of sulphuric acid, hydrogen peroxide and ferric chloride
- Extraction leached from crushed gold ore in a leach tank
- Mineral solution leached to increased level in a column, followed by desorption
- Use metal alloy filter to remove solution – most common method of gold and silver in solution

### Ground Freezing – Freeze Wall

- Original method used to prevent groundwater in the Vancouver River Tunnel through the system design
- A frozen barrier wall was constructed by an underground freeze wall to control rising groundwater
- Heating and controlling system from the Vancouver River to further control groundwater
- Use of preheated water for treatment of the mining solution, decreases heat transfer expense and temperature
- Costs less economically – 50% lower than an open flow system to be economically successful
- Issues with freezing water using chemical heating method
- Drilled bore holes with 100m diameter freeze wall was installed at the downstream end of the tunnel from the ground
- Water in the tunnel started to boil as it was heated in a liquid state equivalent to how a car engine will boil as it is heated
- Controlling and maintaining a safe flow from tunnel and other factors



**In Situ Recovery**



**Ground Freezing**



**In Situ Recovery**



**Ground Freezing**



**In Situ Recovery**



**Ground Freezing**



**In Situ Recovery**



**Ground Freezing**

[illegible]

## Wheeler River Project-Community Engagement Spring 2022

## Section 1: Tell us about yourself!

We want to make sure we are hearing from a diverse group of people from your community, please fill out the following questions to help us determine if there are any voices we haven't heard from yet.

2. Age:

- ☐ 0-15  
☐ 16-34  
☐ 35-64  
☐ 65+

3. Do you identify as an Indigenous person (First Nations, Métis, or Inuit)? Answers to this question are entirely voluntary and not required.

- ☐ Prefer not to answer  
☐ Yes (if yes, then: Please select from the following which best applies to you.)  
☐ First Nation  
☐ Métis  
☐ Inuit  
☐ Non-status  
☐ No

4. Where do you live most of the year:

- ☐ ERFN Patuanak  
☐ Hamlet of Patuanak  
☐ ERFN La Plonge  
☐ Village of Beauval  
☐ Village of Pinehouse Lake  
☐ Other  
☐ Prefer no to answer

Please identify which other community you are from

5. How did you hear about this survey?

- ☐ Facebook  
☐ Poster  
☐ Radio  
☐ Word of Mouth  
☐ Other

6. Which of the following presentations did you attend? Check all that apply.

- ☐ Community Meeting  
☐ Leadership Meeting  
☐ Prefer not to say  
☐ None of the above

## Wheeler River Project-Community Engagement Spring 2022

## Section 2: Provide your feedback

Denison is in the process of completing its environmental assessment for the Wheeler River Project and would like your feedback on its preliminary findings. In the following pages, you will find a summary of the key conclusions of the assessment, and several questions.

**The assessment considered the potential effects to the following topics and components:**

**Soil**

Soil Nutrients, Soil Quantity and Quality

**Water**

Surface Water Quality, Surface Water Quantity, Aquatic and Fish Habitats, Fish Health, Sediment Quality, Sediment Quantity, Benthic Invertebrates, Groundwater Quality, Groundwater Quantity

**Air**

Air Quality, Greenhouse Gas Emissions, Noise

**Wildlife and Plants**

Vegetation and Ecosystems, Plant Species at Risk, Wetlands, Hoofed Mammals, Fur Bearing Animals, Small Mammals, Raptors, Migratory Breeding Birds, Bird Species at Risk

**Terrain**

Landform, Ground, Soil, Geology

**Land Use**

Indigenous Land and Resource Use, Other Land and Resource Use, Heritage Resources

**Humans**

Human Health and Safety, Worker Health and Safety, Cultural Expression, Community Services and Infrastructure, Community Well-Being, Economy



**Overall, through Project design to avoid potential impacts to the environment, and well understood mitigation measures to minimize the predicted effects, Denison's assessment has concluded that the effects to Valued Components can be effectively managed (i.e. Not Significant). Some of the key mitigations include:**

#### Reducing

- The area of disturbance caused by the project
- The amount of water that is treated and released to the environment by reusing mining solution and process water

#### Developing

- Management plans for waste, water, fuel, Woodland Caribou, sediment and erosion, and emergencies
- Agreements with communities to maximize Project benefits, consideration of independent community monitoring, and provide support for community priorities

#### Using

- Noise reducing equipment
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#### Avoiding

- Periods critical to wildlife (denning, breeding, calving, and migration) through scheduling of project activities

#### Progressive Reclamation

- Of the site including stockpiling and reusing materials disturbed during construction

7. Are there any topics of particular concern that Denison needs to pay special attention to?

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#### Wheeler River Project-Community Engagement Spring 2022

#### Section 3: Prize Draw Entry

**If you would like your name entered into a draw prize, please provide the following information**

11. Name

12. Phone number

13. Email address

14. Would you like us to add your email address to our mailing list to receive project updates?

Yes/No

☐ Yes

☐ No



#### Wheeler River Project-Community Engagement Spring 2022

**Thank You!**

**Thank you for completing the Wheeler River Project Community Engagement Survey. If you have any additional comments, questions or concerns please email [WheelerRiverInfo@denisonmines.com](mailto:WheelerRiverInfo@denisonmines.com)**





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AND PASSION.**

**Wheeler River Project**  
Information Session & Community Supper

ERFN La Plonge / Beauval

**Tuesday, May 31, 2022**  
**4:00 pm to 7:30 pm**

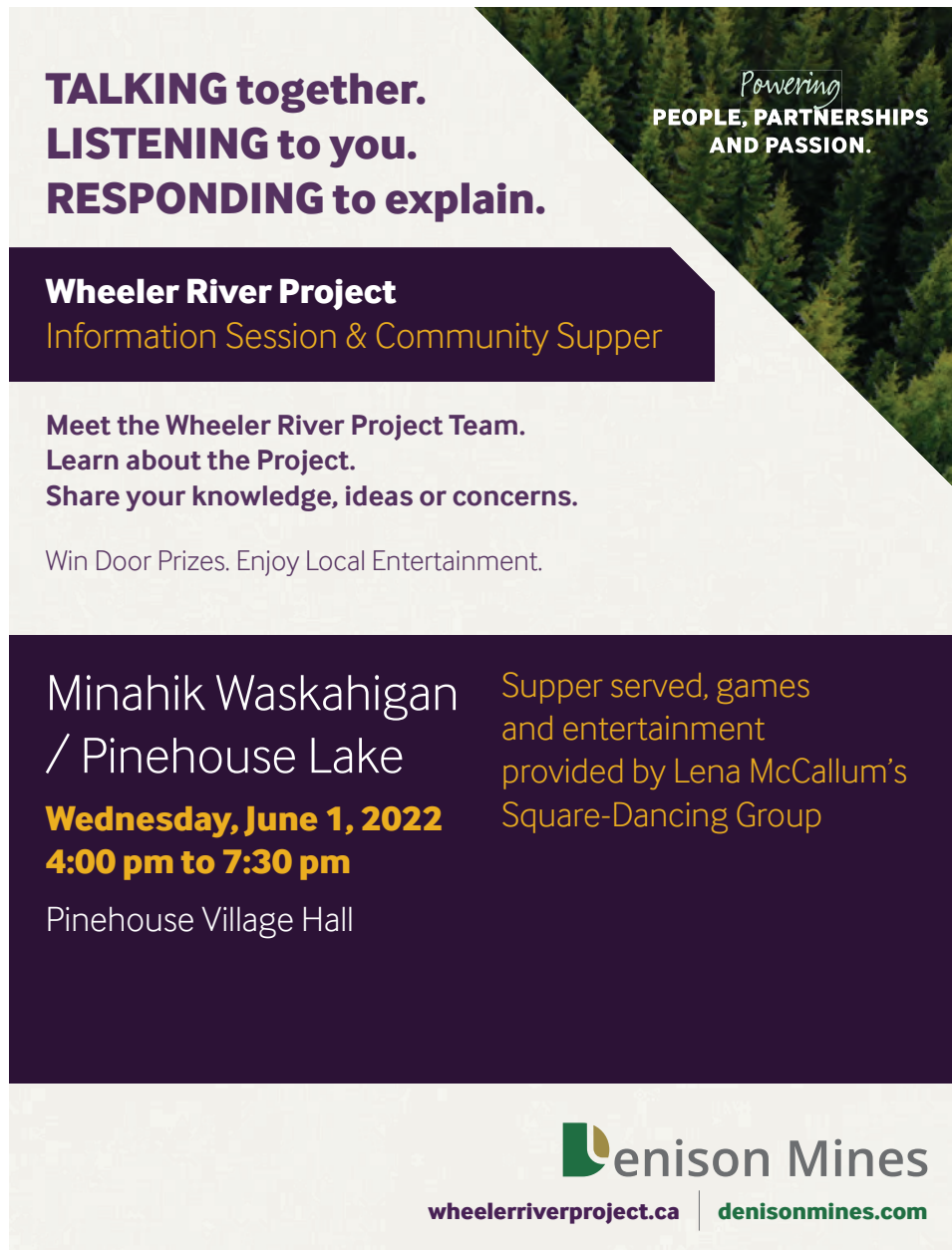
Beauval Recreation Centre - Main Gym

Denison planned this community event in collaboration with the communities' leadership to provide information and seek feedback on the proposed Wheeler River Project. This is a public event open to all residents and people of surrounding areas. Denison is also 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.

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*If you missed it!*

## Poster Ad



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

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


**Wheeler River Project**  
Information Session & Community Supper

Meet the Wheeler River Project Team.  
Learn about the Project.  
Share your knowledge, ideas or concerns.

Win Door Prizes. Enjoy Local Entertainment.

Minahik Waskahigan  
/ Pinehouse Lake  
**Wednesday, June 1, 2022**  
**4:00 pm to 7:30 pm**  
Pinehouse Village Hall

Supper served, games  
and entertainment  
provided by Lena McCallum's  
Square-Dancing Group

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## Facebook Ad



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**Wheeler River Project**  
Information Session & Community Supper

Minahik Waskahigan / Pinehouse Lake  
**Wednesday, June 1, 2022**  
**4:00 pm to 7:30 pm**  
Pinehouse Village Hall

 **Denison Mines**

## TV Ad



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AND PASSION.**

**Wheeler River Project**  
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Meet the Wheeler River Project Team.  
Learn about the Project.  
Share your knowledge, ideas or concerns.  
Supper served, games, door prizes and local  
entertainment provided.

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# At the door handout



## What we heard from residents of Pinehouse and region

We wanted to make sure that community members and leadership are aware of the proposed project, the plans for the future, the opportunities for the community, and to also give an opportunity to the project's provincial (Saskatchewan Ministry of Environment) and federal (Canadian Nuclear Safety Commission) regulators to participate and introduce themselves.

## Wheeler River Project in a nutshell

The Wheeler River Project is located 35 km north-east of the Key Lake mill and 35 km southwest of the McArthur River uranium mine in the south-eastern portion of the Athabasca Basin region.

This proposed uranium mining project will use the In Situ Recovery (ISR) mining method, which is different than any of the existing uranium mines in the Athabasca Basin region - all activities occur at the surface, meaning there are no shafts/underground workings, no open pits, and no major earthworks. While new to the Athabasca Basin, ISR mining is the most common uranium mining method globally. A 10-metre-thick freeze wall separates the mining areas from the surrounding ground water. A solution is injected into the orebody to dissolve the uranium in place (in situ) and the solution carrying the dissolved uranium is pumped to surface where the uranium is extracted from the solution. The same solution is then pumped back into the ground to dissolve more uranium and so on in a closed loop. With this method there is no production of tailings and no large waste rock piles.

## Community Insight

During the meeting participants asked many questions and also provided valuable insight in responding to the follow-up survey. Here are the main points made by community members:

Of all 26 interconnected valued components (VCs), which are the environmental or social aspects that may be impacted by a project, you indicated that the following were most important:

- Air quality
- Birds
- Employment
- Fish habitat and aquatic plants
- Groundwater quality
- Local economy
- Public safety
- Surface water
- Traditional land and resource use

You also mentioned that you would like the Wheeler River Project team to consider the following additional VCs during its assessment:

- Housing
- Community participation

You also told us some of your worries and concerns about the project. These are the main points:

- The potential to impact the environment (contamination), displace wildlife and interrupt traditional land users access to the land
- Being asked to choose between the land and economic opportunities
- An increase in traffic impacting road quality
- The transportation of dangerous chemicals to and from the mine
- The possibility that residents won't be able to take advantage of the opportunities presented to them by the project due to existing social issues like the lack of housing

You acknowledged some of the opportunities you are looking forward to with this project, including the potential for:

- Training and increased Employment
- Jobs in Pinehouse that could benefit community members who can't work away from home
- Funding to the community
- Collaboration agreements
- Denison to form a partnership with the community
- Increased opportunities for community improvement and participation




You invited the Wheeler project team to continue its engagement activities with the community and to consider having a Denison representative residing in Pinehouse. Another idea was to develop community-based employment opportunities to offer work to people who can't leave the community for work (such as single parents).

**Tell Us More**

Denison is committed to engaging with our neighbours and invite you to contact us to share ideas or concerns with the Wheeler River Project team. You can also contact our team to request information or offer your services.


Email: [WheelerRiverInfo@denisonmines.com](mailto:WheelerRiverInfo@denisonmines.com)  
 Tel: 306-652-8200  
 Website: [www.denisonmines.com](http://www.denisonmines.com)

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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 Nuhenê.

Activity	Responsible Party	Start Date	End Date	Status
Project Initiation	Denison Mines	2018	2019	Completed
Environmental Assessment	Denison Mines	2019	2020	In Progress
Regulatory Process	Denison Mines	2020	2021	In Progress
Construction	Denison Mines	2021	2022	Planned
Operation	Denison Mines	2022	2023	Planned
Decommissioning	Denison Mines	2023	2024	Planned



### Key Advantages of ISR Mining

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

### Considerations of ISR Mining

- Introduces opportunity to develop potential mineral deposits not considered economically viable by conventional mining methods
- Protection of surrounding groundwater regime
- Significant evaluation efforts required to confirm ISR mining method is viable for high grade phosphate deposit

## 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 of rotary drilling to create wellfield – most common method of well drilling in Saskatchewan

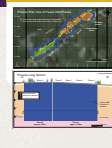
### ISR Process Overview



### 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-circled in a closed loop system – similar to how a community hot tank is kept warm
- Commonly used technology at McArthur River and Cigar Lake

### Proposed Freeze Wall



### Typical Freeze Pipe



## Wheeler River Regulatory Process

### Federal Regulators

- Lead: Canadian Nuclear Safety Commission (CNSC)
- Review and approve Environmental Impact Statement (EIS) and licence applications
- Mandate to protect health, safety and security of Canadians and the environment

### 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:
  - Permits to Operate a Pollutant Control Facility
  - Surface Licence 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



## 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 is 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,
- Kinohewi Métis Local #9,
- Pinehouse Lake,
- Beaumont,
- La Ronge,
- Pahkaniak, and
- the seven Athabasca Communities represented by the 14th Métis Local and Resources Office

VCs were determined to be Air, Human, 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
- Decommissioning
- Water Management
- Waste 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. Based on adverse effects study, we determine: These are the effects left after mitigation measures. Then, we answer questions about the residual adverse effect of each VC:  

- Magnitude: How big is the effect?
- Geographic extent: When 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, 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.

## 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 land 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)

## Wheeler River Cumulative Effects Assessment

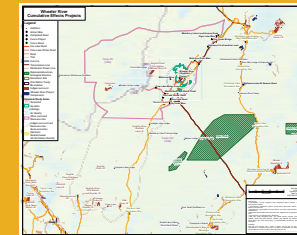
A Cumulative Effects Assessment (CEA) is completed to ensure that the incremental effects from multiple activities in an area (environment, human health, land use, etc.) are considered together. Project activities can interact with Valued Components when interactions cause Valued Components' conditions 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



## Wheeler River VCs: Ground, Terrain and Soil

### 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
- Unsettled spills, leaks

 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 control 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 (dips, ripples and surface drainage patterns)

### Conclusions

- Decommissioning phase to restore the landscape to safe, stable and self-sustaining landscape
- 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 contribute to the environment

## Wheeler River VCs: Wildlife and Birds

### Environmental Assessment Considerations

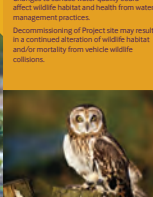
- Populations and health of wildlife including:
  - Grizzly Bear, Moose, Woodland Caribou
  - Furbearers: Wolverine, Mink, Muskrat
  - Birds: Bald Eagle, Osprey, Common Nighthawk, Short Eared Owl, Redpoll, Dove, Barn Swallow, Yellow-Rail, Rusty Blackbird, Olive-Sided Flycatcher

### Potential Effects

- Activities that could reduce or disturb species of wildlife, birds, or habitats include:
  - Vehicle, equipment, and aircraft traffic
  - Dust
  - Human presence
  - Collisions with equipment and vehicles
  - Entanglement in facilities
  - Exposure to substances in dust
  - Release of Project-related treated effluent
  - Spills of construction 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 nesting, raising, breeding
- Nesting surveys conducted before clearing to identify and establish measures to protect nests, burrows, holes, and other habitat
- Measures 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 construction area – waste ponds and pads, landfill
- Employment of Wildlife Caribou Management Plan
- Employment of Wildlife Caribou Management Plan to minimize their impact on wildlife, such as no clearing or grading of wildlife habitat
- Implementation of speed limits to reduce risk of collisions with wildlife
- Waste and hazardous materials collected and temporarily stored in wildlife guard containers

## Wheeler River VC: Aquatic Environment

### 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, dipteran 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 Wheeler Lake
  - Reducing effluent to Wheeler 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 works/construction work during low flow periods, and conducting work away from fish 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 excavation operation during spawning season
- Station shrouds to limit erosion and sedimentation by limiting clearing of vegetation and regrading with native species, whenever possible
- Maintaining routes used for fish passage by designing water intake and headwater discharge locations to protect fish, fish movements, and fish habitat
- Planting to avoid chemicals entering waterways during rain-water work
- Implementing an Erosion and Sediment Control Plan





## Wheeler River VC: Relationship to the Land

**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 context, and fully reversible following decommissioning




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## Wheeler River VCs: Community, Culture and Economy

**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
- Abundance of Traffic
- Increased demand on community infrastructure and services





**Mitigation Measures**

- Development of agreements with communities (support)
- Prioritize Indigenous and non-Indigenous communities of interest (employment, training, and business, wherever possible)
- Implement procurement approach focused on 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 decommissioning
- 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

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 residents/hedge operator – seasonal access
- People fishing/hunting/trapping/gathering/forewood/skiing/series – 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 metal
- 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
- Terrestrial Invertebrates – Earthworm
- 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

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

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
- Kawachik Mito Local #9 (Pitmecca)
- Mitla Nation – Saskatchewan
- A La Bore Mito Local #21 (Be a la Croix)
- Sepik Mito Local #22 (Beavertail)
- Pesumuk Mito Local #23 (Pisumuk)
- Northern Village of Pitmecca
- Northern Village of Beavertail
- Northern Village of Beavertail
- Northern Village of Beavertail

**Other communities, organizations and groups of interest:**

- Lac la Poudre Indian Band
- Black River First Nation
- Buffalo River First Nation
- Hatchet Lake First Nation
- Black Lake First Nation
- Ford du Lac First Nation
- Mitla Nation – Saskatchewan
- Yukon North Land and Resource Office
- Prince Albert Grand Council
- Medicine Lake First Nation
- Commercial trappers
- Commercial fishers
- Commercial lodges
- Cabin and house owners

**Thank You, Bobby John**

Bobby John lived, worked, 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 finding wildlife and for assistance for our field teams, coming through the bush and river. 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 general 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 effluent discharge location
  - Mining method
  - Design changes to treating effluent 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
- Scholarships or in-kind support of education and field trips
- Direct agreements with specific Indigenous communities

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

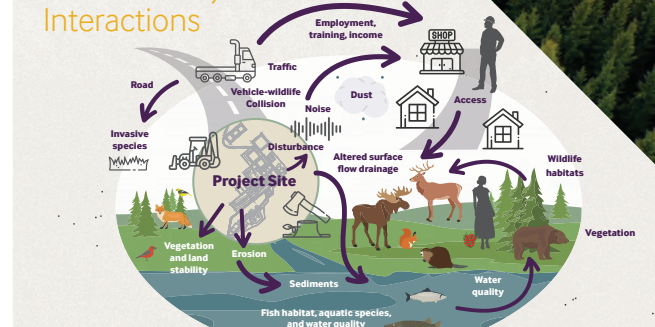
- Entered into an Exploration Agreement with English River First Nation
- Mitla Nation Saskatchewan Region 1 South Bay Gathering
- Saskatchewan Elders Group and their market garden initiative
- Pitmecca Lake Hockey Tournament
- Improvements to the English River First Nation Culture Camp at the Mackenzie Reserve at Yellowknife
- Many Christmas initiatives in the region, including those in Beavertail, Beavertail, and the Harvest of Pitmecca



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## Wheeler River Potential Project Interactions



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## Denison Open House in The Village of Pinehouse Lake

Date: June 1, 2022

### Dialogue Notes

**Comment:** How does CaCl cool and freeze the ground

**Denison:** [Provided with technical details in subsequent email.]

**Comment:** How does sulphuric acid leach the uranium?

**Denison:** [Provided with technical details in subsequent email.]

**Comment:** Do you need to backfill the ore zone after it is mined to prevent ground subsidence?

**Denison:** The mining cavity itself it not backfilled. The individual wells that intersect the deposit are grouted upon decommissioning which in turn act as rock bolts to further stabilize the area around the deposit. Further ground subsidence modelling was conducted which demonstrated that in a conservative scenario the deposit area may see a 7-10cm subsidence over the 400-meter vertical profile. Effects were determined to be negligible.

**Comment:** What type of containment do you have on surface when you move UBS?

**Denison:** At minimum all piping will be double walled with leak detection systems.

**Comment:** When the freeze wall is established will it put pressure on the ISR wellfield by squeezing clays and ground? Seen similar things at McArthur

**Denison:** The freeze wall will have a 25 meter standoff distance from the active ISR wellfield to mitigate and avoid any connection and affects.

**Comment:** How long will your operation be running?

**Denison:** 2 years construction, 10 years operation, 5 years decommissioning

**Comment:** How does ISR mining work?

**Denison:** Injection of mining solution underground through pipes to 400m depth, moves through the ore body, dissolves the uranium and brings to surface, pumped to a processing plant. Planned freeze wall around the wellfield to ensure complete containment of the mining solution

**Comment:** Why has Cameco not done this?

**Denison:** Need to have the right type of ore body in the right location with the right conditions; not all conditions are perfect for this method.

**Comment:** How does the freezing technology work?

**Denison:** Like a local ice rink. Pipes will circulate brine solution that gradually freeze the water in the area surrounding the pipe.

**Comment:** The drills that are using water. Is the water contaminated? Where does the water go that is used in the drilling process?

**Denison:** The water that is used to make up the drilling muds is essentially recirculated as much as possible, and can be released to the environment as it is not generally considered to be contaminated.

**Comment:** Where will the drinking water (for the camp) come from?

**Denison:** Groundwater wells nearby.

**Comment:** What kind of worker turn-around (shift) schedule are you thinking about? 1 and 1 is much better. I work 1 week on 1 week off with Cameco, then they changed to 2 weeks on 2 weeks off. I had to quit because it was too difficult for the family.

**Denison:** This hasn't been confirmed yet, we're still considering options and evaluating the industry standard.

**Comment:** Questions surrounding the scheduling and current state of the project overall. Community members did ask about the Regulatory process and the steps involved. Specifically, they did ask for an indication of approximately when the mine would be in operation.

**Denison:** Informed community members of the process. Used the 'Regulatory Process' poster for assistance – particularly the 'Wheeler River Project Process Status'.

**Comment:** Members requested to view the Project Overview video in Cree.

**Denison:** Played the video in Cree for the members and they gave positive feedback after watching.



## Wheeler River Project Survey

This survey follows a survey conducted in March 2021 regarding the Wheeler River Project and the valued components to be assessed as part of the environmental assessment.

The purpose of this 2022 survey is to offer the opportunity to provide feedback to Denison Mines on the preliminary findings for the Wheeler River Project environmental assessment. Results will be used to help Denison Mines ensure they are meeting community needs and interests in relation to the assessment outcomes. Your feedback helps us understand what is most important to you, what the community values, and what topics people are most interested in in relation to the Wheeler River Project environmental assessment.

There are several benefits of sharing your thoughts in the survey questionnaire. Your input will help Denison Mines focus on environmental components, concerns or topics in relation to the Wheeler River Project environmental assessment that matter most to you.

If you choose to leave your name and contact information at the conclusion of the survey, you will be entered into a prize draw for one of five \$100 VISA gift cards. Participation in the draw is optional and only those who complete the survey will be entered in the draw.

Participation is voluntary, and you may choose to exit the survey at any point. If you agree to participate, it will require approximately 10 minutes of your time to provide feedback on the preliminary findings of the Wheeler River Project environmental assessment. During the survey we will ask you some questions including your age, residence, if you identify as an Indigenous person, and how you heard about the survey. Finally, in order to be entered into the prize draw, you must provide your name and contact information.

Providing your name and contact information is optional. All information you share in this survey questionnaire will be kept strictly confidential and your name will not be associated with the data we collect. Your identity will remain confidential in all publications and public presentations related to this research.

**If you have any questions or concerns about this survey questionnaire, please contact [WheelerRiverInfo@denisonmines.com](mailto:WheelerRiverInfo@denisonmines.com)**

\* 1. By checking this box, you confirm that you understand the purpose of the survey, how the information you share will be used, and that participation in the survey is voluntary.






- ☐ I confirm that I understand the purpose of this survey, how the information will be shared, and that participation is voluntary
- ☐ I DO NOT feel comfortable proceeding with this survey and would like to exit

The Fact Sheets below provide a general overview of the of Wheeler River Project and the related environmental assessment.

# 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 historic territory of English River First Nation in the homeland of the Métis and across Subarctic.



**Key Advantages of USR Mining**

- Small surface footprint
- No construction of pithead facility
- No underground working
- Long-life mine
- Lowest cost of production
- Small volume of material with low
- Small volume of tailings with low
- Small volume of tailings with low
- Small volume of tailings with low
- Small volume of tailings with low

**Considerations of USR Mining**

- Requirement of significant downstream impact
- Requirement of significant downstream impact
- Requirement of significant downstream impact
- Requirement of significant downstream impact
- Requirement of significant downstream impact

**Denison Mines**

wheelerriverproject.ca denisonmines.com

## Wheeler River

# Project Technologies

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

### In Situ Recovery

- Use an acidic or low pH mining solution to leach to extract dissolved gold
- Mining solution is a mixture of sulphuric acid, hydrogen peroxide and ferric chloride
- Extraction leached from crushed gold ore in a stirred reactor
- Mineral solution leached to increased level in a stirred, stirred reactor
- Use multi-stage filter to remove solids – most common method of gold and silver in solution

### Ground Freezing – Freeze Wall

- Original method used to prevent groundwater in the Vancouver River Tunnel through the system design
- A frozen barrier wall was constructed by an underground freeze wall to control rising groundwater
- Heating and controlling system from the Vancouver River to further control groundwater
- Use of process water for the construction of the mining solution, decreases cost and reduces environmental impact
- Ground wall construction – 2000 meter ring was used from surface to be accessible to basement level
- Ground wall construction was designed during mining
- Drilled borehole with a drill pipe that was installed in the ground
- Water in the ground was used to be frozen in a liquid state
- Working with technology in place from the Vancouver River Tunnel





[illegible]

## Wheeler River Project-Community Engagement Spring 2022

## Section 1: Tell us about yourself!

We want to make sure we are hearing from a diverse group of people from your community, please fill out the following questions to help us determine if there are any voices we haven't heard from yet.

2. Age:

- ☐ 0-15  
☐ 16-34  
☐ 35-64  
☐ 65+

3. Do you identify as an Indigenous person (First Nations, Métis, or Inuit)? Answers to this question are entirely voluntary and not required.

- ☐ Prefer not to answer  
☐ Yes (if yes, then: Please select from the following which best applies to you.)  
☐ First Nation  
☐ Métis  
☐ Inuit  
☐ Non-status  
☐ No

4. Where do you live most of the year:

- ☐ ERFN Patuanak  
☐ Hamlet of Patuanak  
☐ ERFN La Plonge  
☐ Village of Beauval  
☐ Village of Pinehouse Lake  
☐ Other  
☐ Prefer no to answer

Please identify which other community you are from

5. How did you hear about this survey?

- ☐ Facebook  
☐ Poster  
☐ Radio  
☐ Word of Mouth  
☐ Other

6. Which of the following presentations did you attend? Check all that apply.

- ☐ Community Meeting  
☐ Leadership Meeting  
☐ Prefer not to say  
☐ None of the above

## Wheeler River Project-Community Engagement Spring 2022

## Section 2: Provide your feedback

Denison is in the process of completing its environmental assessment for the Wheeler River Project and would like your feedback on its preliminary findings. In the following pages, you will find a summary of the key conclusions of the assessment, and several questions.

**The assessment considered the potential effects to the following topics and components:**

**Soil**

Soil Nutrients, Soil Quantity and Quality

**Water**

Surface Water Quality, Surface Water Quantity, Aquatic and Fish Habitats, Fish Health, Sediment Quality, Sediment Quantity, Benthic Invertebrates, Groundwater Quality, Groundwater Quantity

**Air**

Air Quality, Greenhouse Gas Emissions, Noise

**Wildlife and Plants**

Vegetation and Ecosystems, Plant Species at Risk, Wetlands, Hoofed Mammals, Fur Bearing Animals, Small Mammals, Raptors, Migratory Breeding Birds, Bird Species at Risk

**Terrain**

Landform, Ground, Soil, Geology

**Land Use**

Indigenous Land and Resource Use, Other Land and Resource Use, Heritage Resources

**Humans**

Human Health and Safety, Worker Health and Safety, Cultural Expression, Community Services and Infrastructure, Community Well-Being, Economy



**Overall, through Project design to avoid potential impacts to the environment, and well understood mitigation measures to minimize the predicted effects, Denison's assessment has concluded that the effects to Valued Components can be effectively managed (i.e. Not Significant). Some of the key mitigations include:**

#### Reducing

- The area of disturbance caused by the project
- The amount of water that is treated and released to the environment by reusing mining solution and process water

#### Developing

- Management plans for waste, water, fuel, Woodland Caribou, sediment and erosion, and emergencies
- Agreements with communities to maximize Project benefits, consideration of independent community monitoring, and provide support for community priorities

#### Using

- Noise reducing equipment
- Secondary containment of tanks and pipelines in the event of an accidental leak or spill
- Sediment and erosion controls and surface water management features
- Dust controls and emission reduction measures

#### Avoiding

- Periods critical to wildlife (denning, breeding, calving, and migration) through scheduling of project activities

#### Progressive Reclamation

- Of the site including stockpiling and reusing materials disturbed during construction

7. Are there any topics of particular concern that Denison needs to pay special attention to?

8. Are there any things missing that Denison should consider to reduce the effects of the Project to the environment?

9. Are there any topics that you would like to see including in monitoring plans?

10. What additional information would be helpful for you to understand the Project and its potential impacts to people and the environment?



#### Wheeler River Project-Community Engagement Spring 2022

#### Section 3: Prize Draw Entry

**If you would like your name entered into a draw prize, please provide the following information**

11. Name

12. Phone number

13. Email address

14. Would you like us to add your email address to our mailing list to receive project updates?

Yes/No

☐ Yes

☐ No



#### Wheeler River Project-Community Engagement Spring 2022

**Thank You!**

**Thank you for completing the Wheeler River Project Community Engagement Survey. If you have any additional comments, questions or concerns please email [WheelerRiverInfo@denisonmines.com](mailto:WheelerRiverInfo@denisonmines.com)**





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

**Wheeler River Project**  
Information Session & Community Supper

Minahik Waskahigan / Pinehouse Lake

**Wednesday, June 1, 2022**  
**4:00 pm to 7:30 pm**  
Pinehouse Village Hall

**If you missed it!**

 **Enison Mines**

**May 30, 2022**  
**English River First Nation Patuanak**  
**Leadership Meeting**

**In attendance**

**English River First Nation Leadership:** Chief and Council

**Denison:** Kevin Kimbeault, Chad Sorba, Janna Switzer, Stephanie Lukowski, Mike Dawe, Ryan Nagel, Carolanne Inglis-McQuay

**Regulators:** Saskatchewan Ministry of Environment, Canadian Nuclear Safety Commission

**Meeting Notes**

**Denison**

- Shared plan on community open house.
- Provided update on Wheeler River Project and general project overview.
- Provided information on ISR and the Phoenix deposit
- Discussed small project size, impact, and footprint.
- Explained that Denison is currently in the Environmental Assessment process; licensing will follow.

**Questions/Answers**

Q: 'Experimental' is this new technology, is it done anywhere else in the world?

A: Need optimal conditions, the freeze wall shouldn't be considered experimental.

Q: What about decommissioning? The uranium can last a long time. And what about the monitoring wells?

A: You can start decommissioning as you move into a new phase. Monitoring wells are used to ensure we maintain containment. They monitor groundwater.

Q: What about the bedrock?

A: Combination of hard rock. Quartz and granite.

Q: What about safety? That's going to be a concern for the membership. We're going to still be here, what going to happen to the environment, the streams?

A: Environmental safety is extremely important to Denison. We've studied ground water movement extensively. Tracer tests. Feasibility Field testing and collecting more data gives us confidence that we can contain the uranium and any material pumped down.

**Denison**

- Provided overview of the project Valued Components, and significance determination.
- What is that change, how big is it and how long will it last? That's significance determination.
- All technical assessments are back, returning no significant change.

Q: Is climate change considered?

A: Climate change is factored into the impact assessment. It's a piece of the EA. Project is estimated at 10 years, difficult to integrate climate change study in 10 years.

Q: What about small quakes

A: We maintain a balanced flow or state underground. Seismic activity isn't expected at all. Northern Saskatchewan is pretty stable.

**Denison**

- Mention of the environmental monitor position. Denison actively looking to fill that role after 2021 field work.

Q: Employment and training opportunities

A: Active components of ongoing negotiations. Best to establish training programs together.

Q: What are you doing for the community? Donations and housing

A: Active components of ongoing negotiations. A key measure of success is how successful our (Denison) relationship has and will be with ERFN

Q: Rough timeline until first uranium?

A: Approx. 5-7 Years

Q: Work co-ops for youth and students? Something to plan for

A: Timelines. Closer to production/construction. Something to plan for with ERFN, asking what interests exist. Project needs approval before employment can scale up

**ERFN Leadership**

- "We're passionate about the land, water and the medicines." Shared stories heard from Elders.
  - *"How much (space) are we going to have left. Sure, it's good money, but it comes at a sacrifice"- Elder*
  - *"The government is going to give them approval. I just wish they'd treat the area like they would their own backyard"- Elder*

**May 31, 2022**  
**Northern Village of Beauval**  
**Leadership Meeting**

**In attendance**

**Northern Village of Beauval:** Mayor and Municipal Leaders

**Denison:** Kevin Kimbeault, Chad Sorba, Janna Switzer, Stephanie Lukowski, Mike Dawe, Ryan Nagel, Carolanne Inglis-McQuay

**Regulators:** Saskatchewan Ministry of Environment

**Meeting Notes****Denison**

- Shared plan on community open house.
- Provided update on Wheeler River Project and general project overview.
- Provided information on ISR and the Phoenix deposit
- Discussed small project size, impact, and footprint.
- Explained that Denison is currently in the Environmental Assessment process; licensing will follow.

**Questions/Answers**

Q: Time and schedule?

A: Working through federal and provincial approval timelines. Schedule pushed back, planning on submitting EA summer 2022

Q: Any partnership with Cameco or Orano?

A: No, Denison budget total interest in the project .

Q: How would workers get to site?

A: We've scooped an airstrip into the plan. Presently driving

**Denison**

- Interest in bringing in students/employees for the Feasibility Field Test. Sharing postings in the future.
- Willingness to understand the community/local/employment connections
- Mention of agreements and searching for local business opportunities



**June 1, 2022**  
**Northern Village of Pinehouse Lake**  
**Leadership Meeting**

**In attendance**

**Pinehouse:** Municipal Leadership

**Denison:** Kevin Kimbeault, Chad Sorba, Janna Switzer, Stephanie Lukowski, Mike Dawe, Ryan Nagel, Carolanne Inglis-McQuay

**Regulators:** Saskatchewan Ministry of Environment, Canadian Nuclear Safety Commission

**Meeting Notes**

**Denison**

- Shared plan on community open house.
- Provided update on Wheeler River Project and general project overview.
- Provided information on ISR and the Phoenix deposit
- Discussed license to construct, small project size, impact, and footprint.
- Explained that Denison is currently in the Environmental Assessment process; licensing will follow.

**Questions/Answers**

Q: Why would you need to do an extra test after the ion tracer test?

A: The ion tracer test was successful, but we need to ensure we don't clog the hydraulic connections. We can know that but only using the tracer tests. We need to do this for economic model, can we hit 15g/L of uranium - to prove feasibility

Q: Have you mapped the ends of the ore body?

A: The ore zone has been very well delineated since 2008. (dimensions provided)

Q: Can this method be used for other smaller ore deposits?

A: ISR is good for certain deposits and conditions.

Q: What does the freeze wall do for containment?

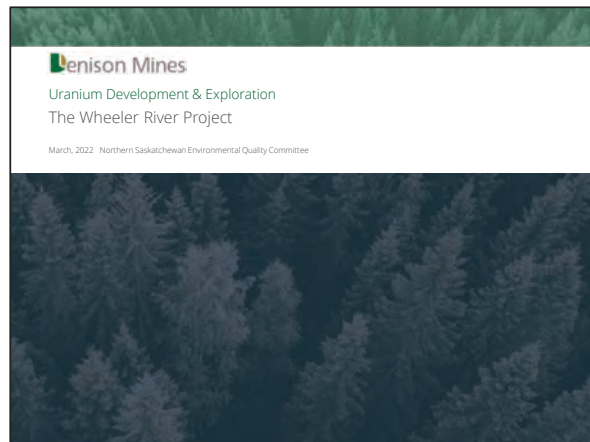
A: As long as the pumps are going, the lixiviant and uranium are being pulled to the recovery wells. The first containment is piping, the second containment is pumping, the freeze wall is the third layer of containment.

Q: Need education and training model that fit within our community structure. A mix of western and traditional learning. Once a job posting goes up its too late, we need to know before hand, as partners we should and deserve to know before hand. To prioritize our people

A: Training is critical. A lot of people being employed during construction can also be employed during production. The same skillset can be used throughout the lifecycle.


Q: What are the opportunities? A new (smaller, less impactful) method can reduce jobs for the community. We really need to get educated and learn about this kind of mining.

A: Lots of drilling and operation in the well field. Will have a processing facility and will require people, will need environmental professionals. Site services is important. In operations we're looking at 100-150 during peak operations.



- Important that the audience understands that the information discussed here today is based on information known presently and as an outcome of the completion of various technical reports. The information shared today should not be relied upon to make investment decisions.

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 Nuhenéne.



3

**Company Overview:**  
Denison is focused on opportunities in northern Saskatchewan

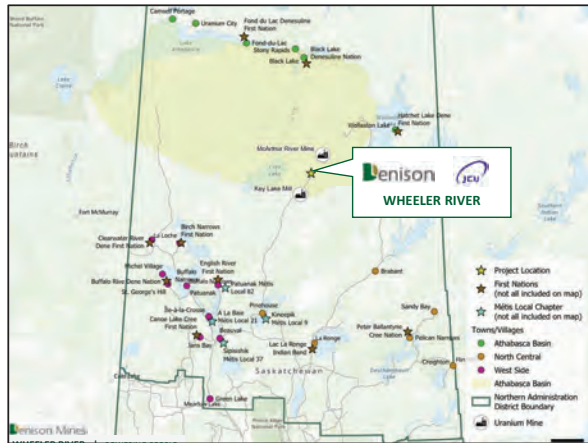
- 22.5% interest in **McClean Lake Uranium Mill**
- An effective 95% interest in Flagship **Wheeler River** project
  - Advancing through development process
  - Largest undeveloped uranium project in the infrastructure rich eastern Athabasca Basin
  - Environmental Assessment ("EA") initiated
  - Progressive approach to mining using In Situ Recovery ("ISR") method
- 66.9% in the **Waterbury Lake Property**, hosting the Tûhe Hêdeth Tûé (formerly) Zone deposit
  - Recently completed Preliminary Economic Assessment ("PEA")
  - Amenable to ISR mining method
- Several other interests in the Athabasca Basin region
  - **McClean Lake, Midwest, and Waterbury Lake** properties, all in close proximity to McClean mill
  - **+250,000 hectares** of exploration ground



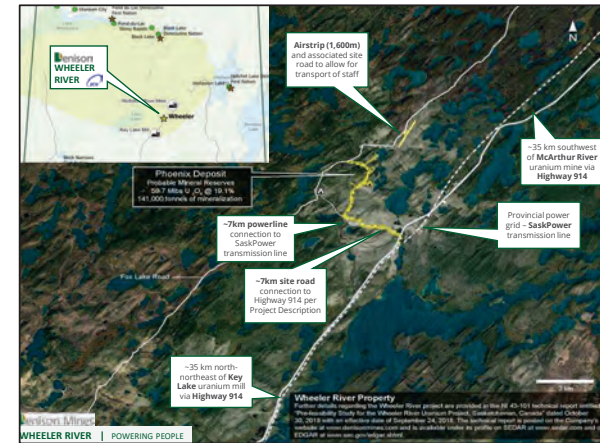
4

- Denison has been working in northern Saskatchewan for a very long time
- Undertakes exploration activities but is also a part owner at the McClean Lake Mill
- Actively advancing the Wheeler River Project – which we will discuss today. The Wheeler River Project plans to use a mining method that has not been used in the Athabasca Basin – called In Situ Recovery Mining (ISR for short)
- Denison also owns a significant portion of the Waterbury Lake Property, near Midwest
- And has a significant amount of hectares in exploration ground





- The Wheeler River Project is 37km north of Key Lake, south of McArthur River



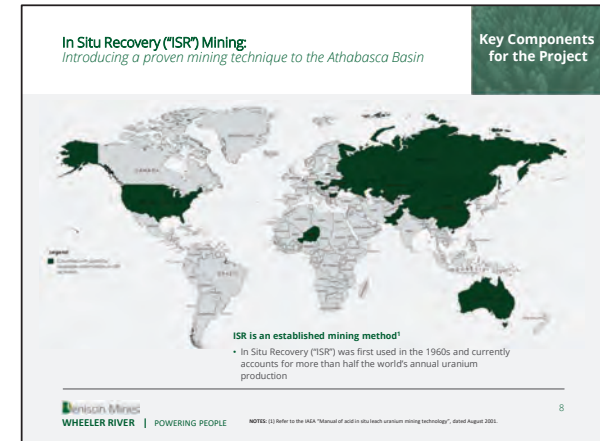
The Wheeler River Project is highlighted in yellow.

- As mentioned previously, it is 35km south of McArthur River and 35km north of Key Lake
- It is located about 7km off the main highway
- It would require a new 7km road
- It would require a new 7km powerline that would connect to the main power grid
- And we are planning for a new airstrip, just north of the planned operation

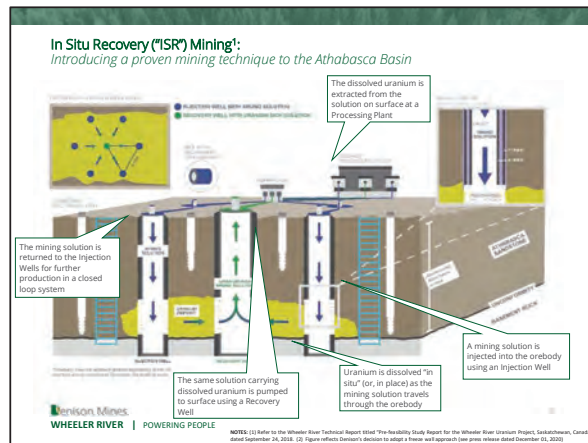


Zooming in further to the Wheeler River Project, the main components of the Project are:

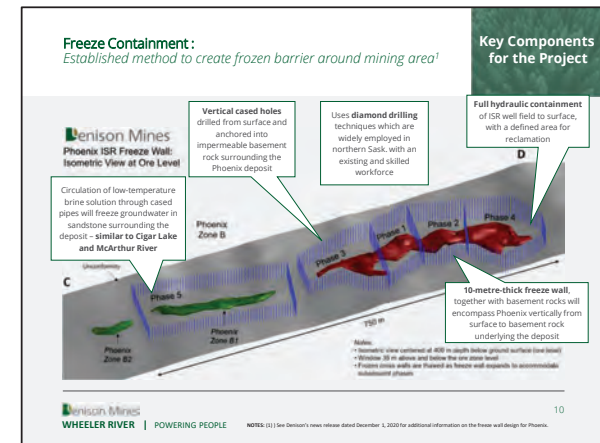
- 1) The Phoenix ore body, marked in green (at 400 metres depth)
- 2) The In Situ Recovery (or ISR) wellfield contained within the yellow box
- 3) The 10 metre thick freeze wall around the entire well field, shown by the yellow box
- 4) Potable water and water treatment storage
- 5) Treated effluent discharge location
- 6) Waste management area
- 7) Gatehouse
- 8) 150-person camp facility
- 9) Warehousing, fuel storage, etc
- 10) Airstrip



- A key component of the Wheeler River Project is the use of the In Situ Recovery Mining method
- This method is commonly used around the world, but hasn't yet been used in the Athabasca Basin
- It accounts for more than 50% of the world's production of uranium



- ISR involves is undertaken through a series of wells that are drilled underground, through the sandstone into the impermeable rock below
- In order for ISR to be successful, there need to be three things to happen:
  - 1) You need to be able to move solution through the ore body
  - 2) You need to be able to remove the uranium from ore using the acidic mining solution
  - 3) You need to be able to contain the mining solution around the ore body
- Between an injection well and a recovery well, acidic mining solution is moved through the ore body, dissolving the uranium from the ore as it travels through the ore body
- The same solution carrying the dissolved uranium is pumped to surface using a recovery well and goes to a processing plant
- The uranium is extracted from the solution and turned into yellowcake
- The acidic mining solution is returned back to the injection wells into an almost closed loop system and repeats itself all over



- An important part of the proposed approach for the Wheeler River Project will be the installation of a freeze wall around the mining area.
- This freezing technology is the same that is used at Cigar Lake and McArthur River, where a low-temperature brine will be used to freeze the water in the sandstone to create the ice wall
- The freezing will create a 10m thick ice wall around the mining area, creating containment for the acidic mining solution
- The drilling technology is that which is widely used in northern Saskatchewan, which will allow for a sustainable deployment of the technology over a longer period of time, with the potential to employ many northern Saskatchewan residents



Video: Welcome to Wheeler River



# Northern Saskatchewan Environmental Quality Committee

Meeting Notes  
March 2-3, 2022, La Ronge

<p><b>In Attendance :</b>  <b>NSEQC (In person):</b> <i>Jeannine Patterson, Nick Daigneault, Allen Augier, Frank Wiegers, Bruce Fidler, Darin Morin, Darwin Lafond, Conrad Misponas, Tyler Morin, Robert St. Pierre</i>  <b>GRNE:</b> <i>Scott Boyes, Ashley Carlson (NSEQC Manager). Gill Gracie, Aurora Communications Ltd. (Recorder)</i>  <b>Presenters &amp; Guests (Via Teams):</b>  <b>Ministry of Environment:</b> <i>Shawn Francis, SK1 Caribou Range Plan Implementation Coordinator</i>  <b>Denison Mines:</b> <i>Carolanne Inglis-McQuay, Chad Sorba</i>  <b>NexGen Energy:</b> <i>Adam Engdahl, Alison Auramenko, Melissa Don Hovdebo (Consultant)</i>  <b>Orano:</b> <i>Tina Searcy, Glenn Lafleur, Stephanie Forseille</i>  <b>CNSC:</b> <i>Richard Snider</i>  <b>Population Health Unit:</b> <i>Dr. James Irvine, David Sampson</i>  <b>Cameco:</b> <i>Kristin Cuddington, Anne Gent, Kevin Park, Mike Webster, Barry Esford, Victor Fern</i>  <i>Copies of all presentations were distributed at the meeting.</i></p>		<p><b>NSEQC Mandate</b>  <b>To increase the level of communication among government, northern stakeholders and industry around uranium development and environmental issues in northern Saskatchewan.</b></p>
Agenda Item	Notes	Actions/Information
<p><b>Introduction</b></p> <p><b>Ashley Carlson</b></p>	<ul style="list-style-type: none"> <li>Ashley introduced herself as the new NSEQC Manager and gave her background as part of a commercial fishing family. She offered a land acknowledgement. She and staffers Scott Boyes and Nathan Andrews introduced the agenda.</li> <li>The current NSEQC term ends June 22, 2022; nominations papers have gone out. The NSEQC is authorized by the province. Discussion of the Criminal Record Check requirement. Industry supports the NSEQC by facilitating site visits.</li> <li>Discussion of roles and responsibilities.</li> <li>There are two or three meetings a year, plus site visits (now once every two years to each site). Also, potentially conferences and regional subcommittee meetings.</li> <li>Discussion of potential communications methods and vehicles: annual Report to Communities, newsletters, meeting notes, town hall meetings, talking to youth, posters, and just being visible in the community.</li> <li>Discussion of challenges, including changing personnel and changing environmental legislation.</li> </ul> <p><b>NSEQC Reps asked:</b></p> <ul style="list-style-type: none"> <li><b>Is this part of Duty to Consult?</b> <i>(Not officially, but it helps people understand so consultation goes more smoothly. The legal Duty applies to First Nations and Metis peoples, while the NSEQC includes municipalities as well as First Nations, and is not a rights-based body).</i></li> <li><b>Is there a need to update the Roles and Responsibilities booklet so the NSEQC is not so council-based?</b> <i>(We will specify that NSEQC members do not have to be councillors).</i></li> <li><b>At what point are new exploration companies made aware of the NSEQC?</b> The manager explained that exploration companies are not required to meet with the NSEQC. (Additional note: companies typically become aware of the NSEQC later in the development process, such as the EIS stage, but the NSEQC is interested in pursuing earlier engagement).</li> <li><b>Request for a map (heatmap) of exploration projects in the north.</b> <i>(Ashley will try to produce one).</i></li> <li><b>Question about what to do if companies leave materials or unsafe conditions on their worksites – examples of holes dug near Green Lake that Sask Resources filled in.</b> <i>(Ashley will distribute what information she is able to find).</i></li> </ul>	<p><b>Ashley Carlson - Manager</b>  306-425-4211 Office  306-425-7303 Cell  <i>Ashley.carlson@gov.sk.ca</i></p> <p><b>Nathan Andrews, Admin</b>  306-425-4200  <i>Nathan.andrews@gov.sk.ca</i></p> <p><b>EA:</b> Environmental Assessment  <b>EIS:</b> Environmental Impact Statement</p> <p><b>ACTION:</b> Ashley: Heatmap of exploration projects</p>
	<ul style="list-style-type: none"> <li>On March 24, the CNSC will hear Cameco's application to release 18 remediated sites from the Eldorado site near Uranium City to provincial Institutional Control. 24 properties have already been released in this way, in 2009 and 2019, including the free release of one area that was never mined.</li> </ul>	<p><b>Institutional Control:</b> the phase of a project where the province accepts remediated land back to provincial</p>

<b>Beaverlodge Public Hearing May 24</b>  <b>Ashley Carlson</b>	<ul style="list-style-type: none"> <li>• <b>Motion: “That the release of the 18 properties at Beaverlodge not be approved until further investigation, including by communities outside the Athabasca region”. A. Augier, Seconder B. Fidler. Carried.</b></li> <li>• Ashley has submitted a written intervention on behalf of the NSEQC.</li> <li>• Robert St. Pierre will make an oral presentation to the CNSC Commission on March 24.</li> </ul> <p><b>NSEQC reps asked:</b></p> <ul style="list-style-type: none"> <li>• <b>Concern that the NSEQC has not seen the properties on the ground. Suggested the NSEQC should support a First Nations request to delay the decision for a year and see the sites in person first next summer. Agreed.</b></li> </ul>	<p>control. The release is accompanied by funding for ongoing monitoring to make sure the land stays safe in perpetuity.</p> <p><b>ACTION:</b> Letter to go in; no guarantee it will be considered.</p>
<b>Establishment of Co-Chairs</b>	<ul style="list-style-type: none"> <li>• Each subcommittee names its own chair. <ul style="list-style-type: none"> <li>○ Bruce Fidler named South Central Co-Chair. Bruce took over the chair from Ashley.</li> <li>○ Allen Augier named Athabasca Co-Chair</li> <li>○ Robert St. Pierre named West Side Co-Chair.</li> </ul> </li> </ul>	
<b>Open Topics</b>	<p><b>Communications</b></p> <ul style="list-style-type: none"> <li>• Monthly newsletter or speaking points for reps, in simple language, to be shared with communities, posted in gas stations, shared around and/or added to community scroll. To include government website links and contact emails. Send to the EQC member and the community admin office.</li> <li>• Heatmap of exploration sites.</li> <li>• Potentially a regular spot on MBC</li> <li>• EQC member posters for bulletin boards, as before, so the community knows who their rep is.</li> </ul> <p><b>Non-uranium issues</b></p> <ul style="list-style-type: none"> <li>• <b>A peat moss mining application south of La Ronge</b> has been denounced by the Lac la Ronge Indian Band and a local group called For Peat’s Sake. They do not want it to proceed. They have support from the Montreal Lake and Peter Ballantyne Cree Nations. No decision yet from the Minister of Environment. NSEQC members commented: <ul style="list-style-type: none"> <li>○ <b>Lambert Peat</b> (from Quebec) is doing an Environmental Assessment. There are four potential sites around the Potato Lake, Egg Lake, and on the Creighton Road. Government is offering an 80-year lease. Lambert would offer limited employment, with no particular benefit to our area.</li> <li>○ Green Lake is having a similar issue with a company wanting to mine peat in their area.</li> </ul> </li> </ul> <p><b>Foran Mining</b> is developing a proposed base metal mine west of Creighton</p> <ul style="list-style-type: none"> <li>• Just going into the development stage. They have met with Creighton and Denare Beach; PBCN is working with them.</li> </ul>	<p><b>ACTION:</b>  <b>Nathan</b> will send out website links to Lambert Peat and Foran Mining.  <b>Ashley</b> will invite both companies to a meeting.</p>
<b>Darren Thomas</b>	<p>Previous manager Darren Thomas checked in briefly via TEAMS to greet the reps.</p>	
<b>SK1 Caribou Range Plan Update</b>  <b>Shawn Francis, Ministry of Environment</b>  <i>Refer to presentation</i>	<ul style="list-style-type: none"> <li>• SK1 is in the Boreal Shield Caribou Conservation Unit. The planning process will start in late October. The initial meeting this fall will include a conversation on the process and the model and get feedback. Research has not yet begun.</li> <li>• More than 40 communities will be involved in the discussion, including some from Alberta and Manitoba. The proposed fall schedule for SK1 will be sent to all communities in the area in the coming months.</li> <li>• SK1 is very different from the SK2 Boreal Plain unit, which is in the draft stage. SK2 West and SK2 East are done.</li> <li>• Grants are available to First Nations and Métis community land people to talk about caribou observations and hold community meetings.</li> </ul> <p><b>NSEQC reps commented:</b></p> <ul style="list-style-type: none"> <li>• <b>The caribou study on the west side involved the Metis locals. Forestry companies there (Carriere, Zelensky) ignored the plan, which addressed old growth forest in terms of the migration pattern.</b></li> <li>• <b>Buffers used to be one km from the highway – not anymore! Financial penalties are too light.</b></li> <li>• <b>The forest service does not take consultation into account.</b></li> </ul>	<p><b>Shawn Francis</b> is the Implementation Coordinator for this range plan. Team Lead, Landscape Management , Environment, Habitat Unit  102-112 Research Drive, Saskatoon, SK, S7N 3R3    Phone: 306-230-5109  woodlandcaribouproject@gov.sk.ca</p> <p><b>ACTION:</b> Ashley will gather and distribute more information.</p>



<p><b>Cameco Mine Site Updates</b></p> <p><i>Anne Gent, Kevin Park, Mike Webster, Kristin Cuddington. Victor Fern and Barry Esford were also on the line.</i></p> <p><i>Refer to presentation</i></p>	<p><b>1. <u>Uranium 101 – Anne Gent</u></b></p> <ul style="list-style-type: none"> <li>Saskatchewan uranium is high-grade, and is found close to the sandstone/basement rock contact (unconformity)</li> <li>The first Saskatchewan uranium mine started 70 years ago at Beaverlodge. Gunnar was the next.</li> <li>Modern mining, in sequence: <ul style="list-style-type: none"> <li><b>Rabbit Lake (Cameco):</b> Discovered 1968, started in 1975, first pockets mined by open pit. Early ore was less than 1% grade. First underground mine at Eagle Point started in 1993, using conventional hard rock mining (blasthole stoping) which requires stable ground and steep dip. Remote scoops and trucks moved the ore to the mill. Access by ramp to max depth of 420 m. Production was 4-5 million pounds U<sub>3</sub>O<sub>8</sub> annually.</li> <li><b>Key Lake (Cameco):</b> Two open pit mines. 1983-1997. The mill now processes McArthur River ore. The largest open pit, Deilmann, is now the TMF.</li> <li><b>McArthur River (Cameco):</b> 2000-present. 640-metre (height of CN Tower) shaft to access ore, which is at the unconformity and overlain by saturated sandstone. High-grade ore, up to 20% (currently at 6.58%).</li> <li>This mine uses a raisebore mining method where frozen ore falls into a lower level and is collected remotely by scoop tram. It is ground to a sandy constituency and pumped to surface as a slurry, then transported to the Key Lake mill in specially shielded totes.</li> <li><b>Cigar Lake (Cameco):</b> 2014 – present. Average ore grade 15.4%; flat, uniform orebody which is frozen for mining. Ore is mined from beneath using a high-pressure water jet boring method developed at the mine, and sent to the McClean Lake mill.</li> <li><b>Cluff Lake (Orano):</b> Open pit and underground mines, 1980 – 2022. Now decommissioned and stable; application to release to IC expected in the next few years.</li> <li><b>McClean Lake (Orano):</b> 1996 – 2008. Started with the JEB pit, then Sue A, B, C, D. Ore processed at an onsite mill which now mills Cigar Lake ore starting in 2014. There is potential on the lease to mine the other small deposits, currently being assessed. Application to expand the TMF recently approved by CNSC.</li> </ul> </li> <li>Ore occurring 100 meters or less below surface is typically mined via open pit, with overburden being removed conventionally. Ore is drilled and blasted, and moved by haul trucks with up to 200 tonnes capacity.</li> <li>Mined-out open pits are sometimes converted for use as Tailings Management Facilities (TMFs) – examples include Rabbit Lake, Key Lake, McClean Lake.</li> <li>Ore deeper than 100 meters from surface is usually mined from underground via a shaft or a ramp. This sometimes requires ground support. If water inflow from surrounding water-bearing sandstone is a problem, the sandstone may be frozen using a brine solution at -25°C. Ore is pulverized in an underground grinding circuit, and pumped to surface for storage before being transferred to special totes for transport to a mill.</li> <li>Milling completes the grinding process and separates the uranium from the slurry. Anne detailed the process. High-grade ore is stored in air-agitated tanks; low-grade ore is stockpiled on surface. At Key Lake, the two are blended for a mill feed grade of 4%. The McClean Lake mill can handle undiluted high-grade ore.</li> <li>The resulting yellowcake is packed in 45-gallon drums, each weighing 880 pounds, and shipped by road to Blind River, Ont. or to the U.S. for processing into nuclear power reactor fuel.</li> </ul> <p><b>2. <u>Cameco General Site Updates – Kevin Park</u></b></p> <ul style="list-style-type: none"> <li><b>Rabbit Lake:</b> In care and maintenance since 2016. Cameco is looking for opportunities to reclaim areas no longer required. The current operating license expires Oct. 31, 2023.</li> <li><b>Key Lake/McArthur River:</b> These sites were placed in care and maintenance in 2018 because of world market conditions and received new Approvals to Operate from the Sask. Ministry of Environment in Nov 2021 after an October inspection. The McArthur River mine and Key Lake mill will gradually resume production through 2022, producing about five million pounds U<sub>3</sub>O<sub>8</sub> this year. The operating license expires Oct. 31, 2023, and Cameco will seek an indefinite license. Country food monitoring and public information initiatives will continue, and CNSC will issue annual Regulatory Oversight Reports.</li> </ul>	<p><b>Anne Gent:</b> Lead Environmental Scientist, Cameco <i>Anne_gent@cameco.com</i></p> <p><b>Kristin Cuddington:</b> Community Social Responsibility (CSR) <i>Kristin_cuddington@cameco.com</i></p> <p><b>Kevin Park:</b> Lead Environmental Engineer; Compliance and Licensing. <i>Kevin_park@cameco.com</i></p> <p><b>Video:</b> <i>How It's Made – Uranium You Tube</i></p>
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	<ul style="list-style-type: none"> <li>• <b>Cigar Lake:</b> The only Saskatchewan uranium mine to continue operating throughout the downturn. The CNSC license was renewed in 2021 for 10 years. They are applying to reduce the lease size by releasing unused areas back to the province.</li> </ul>	
<p><b>Beaverlodge Update</b></p> <p><i>Mike Webster</i></p> <p><i>Refer to presentation</i></p>	<ul style="list-style-type: none"> <li>• Beaverlodge operated from 1952-1982 about 8 km east of Uranium City. Ore grade was about 0.25%, or 100x less than modern mines. About 20,000 tonnes of yellowcake were produced from 70 sites over the 30-year life. It closed in 1982 and initial reclamation was completed in 1985. The site has been in transition monitoring ever since.</li> <li>• In 2007 a framework for the provincial Institutional Control (IC) program was developed to administer remediated properties returned to the province by operating companies, and to ensure ongoing monitoring and maintenance. A Beaverlodge Management Framework was established at the same time.</li> <li>• The process includes gathering information; assessment of risk; consideration of remedial options (with public input through two workshops which included the NSEQC); implementation of the chosen path forward by developing objectives that would leave the sites safe, secure and stable; and application for release.</li> <li>• Performance indicators include acceptable gamma levels, sealed boreholes, no debris. Surveys are recorded by GPS to ensure no areas are missed. Mine openings have been covered with stainless steel caps, and areas of subsidence from crown pillar collapse have been filled.</li> <li>• Five small sites were released to IC in 2009, and 20 in 2019 (including one never-mined site that was free-released outside IC. The land is safe to use for traditional activities.</li> <li>• The releasing company (in this case the federal government through Canada Eldor, the legacy owner of the properties) provides funding to cover the cost of perpetual monitoring.</li> <li>• The CNSC will consider Cameco's application to release 18 more sites at a hearing on March 24, 2022. The NSEQC has submitted a written intervention, and has selected Robert St. Pierre to represent the group in an oral presentation.</li> </ul> <p><b>NSEQC reps asked:</b></p> <ul style="list-style-type: none"> <li>• <b>Concern about a high number of barrels scattered in the bush at the north end of the airport.</b> (<i>Not clear whose they are; they are not on Beaverlodge properties.</i>)</li> <li>• <b>Can the province release properties in IC for other uses?</b> (<i>They could, with the understanding that there could still be certain risks associated with them, and perhaps indicating certain area to stay away from. The Contact Lake gold mine property north of La Ronge was released for further development in that way.</i>)</li> <li>• <b>What is the typical lifespan of decommissioning?</b> (<i>Highly variable depending on the condition of the site. It is different for just a mine than for a mine and mill.</i>)</li> <li>• <b>Is the process to release part of a lease area different from the IC process?</b> (<i>This is undisturbed land, and is released through the Lands Branch of the Environmental Protection section of Sask. Environment. Altered land would likely go to IC.</i>)</li> <li>• <b>Why do roads always have to be taken out – northerners can use them for hunting and traditional activities!</b> (<i>There are arguments on either side.</i>)</li> <li>• <b>Who makes the recommendations around restarting a mine, and must they be followed to resume production?</b> (<i>Companies are not required to follow regulator recommendations; they are not action items.</i>)</li> <li>• <b>Can IC sites be free released?</b> (<i>Sites that have not been mined or disturbed would be released from CNSC licensing. We would then work with Lands Branch to redraw the boundaries of our lease. The land would revert to the Crown to be redistributed for future use.</i>)</li> <li>• <b>Is there a required thickness for a crown pillar?</b> (<i>We saw settling at a thickness of 5-7metres. However, when stoping, the miners built waste rock platforms underground to access the ore which reached to a couple of metres below the surface, so subsidence would be limited. Where we saw subsidence, we added extra waste rock fill on top. Anything 20 metres or more thick would not require additional monitoring. The rest will be monitored annually.</i>)</li> <li>• <b>What is the plan at current mines so this does not happen again?</b> (<i>Current operations would be able to assess crown pillars from underground. All sites have programs regarding mining safety; also current mines are many hundreds of meters below surface so this would not happen.</i>)</li> </ul>	<p><b>Mike Webster</b>, Lead Reclamation Specialist, SHEQ; Manager, Beaverlodge Project. <i>Mike_webster@cameco.com</i></p> <p><b>A Virtual Tour of Beaverlodge</b> (in English and Dené) is posted on the Beaverlodge website: <a href="http://www.beaverlodgesites.com">www.beaverlodgesites.com</a>.</p> <p><b>SHEQ:</b> Safety, Health, Environment and Quality</p> <p><b>CNSC Project Officer: Richard Snider</b>, Senior Project Officer 306-975-4955 <i>Richard.snider2@canada.ca</i></p> <p><b>Sask. Ministry of Environment Project Officer:</b> <b>George Bihun</b>, Environmental Protection Officer, Uranium and Northern Operations 306-930-8918 <i>George.bihun@gov.sk.ca</i></p> <p>Annual reports on each site, and photos of the remediated areas, are available on the Cameco website.</p>

<p><b>Rook I Update</b></p> <p><b>NexGen Energy</b></p> <p><b>Adam Engdahl</b> Alison Auramenko Melissa Scansen <b>Luke Moger</b> Don Hovdebo, Consultant</p> <p><i>Refer to presentation</i></p>	<p><b>Adam outlined the Rook I Project:</b></p> <ul style="list-style-type: none"> <li>155 km north of La Loche, on a peninsula in Patterson Lake.</li> <li>The deposit, discovered in 2014, contains 256 million pounds U3O8 averaging 3.1% uranium, for 3.75 million tonnes of U3O8. It is in vertically stacked veins, in very stable crystalline basement rock. The deposit is overlain by 40-60 metres of overburden and 60-100 metres of sandstone. It is monometallic, with no other contaminants like arsenic or molybdenum</li> <li>Baseline studies started in 2015; in 2016 NexGen announced the largest initial resource estimate ever. From 2016-18 they completed a Preliminary Economic Assessment (PEA), then a Preliminary Feasibility Study (PFS) after more engineering. An Environmental Assessment (EA) was started in 2019, and a project description submitted to regulators in early 2019. A full Feasibility Study (FS) was completed and released in 2021.</li> <li>It will be mined by conventional underground longhole stoping, and milled conventionally using an acid strip method. 100% of tailings will be returned underground. This is not the most economic, but the best to match our elite standards. This costs 20% more than keeping tailings on surface.</li> <li>Construction is scheduled for 3 ½ - 4 years; operations for 24 years; active decommissioning for five years. Post-active decommissioning will take 10 years, so there will be activity on site for almost 45 years!</li> <li>The tailings, in a cemented paste form, will be placed in caverns purpose-mined in clean rock, from 300m to 600m below surface. The clean rock will be hauled to surface and placed on properly lined and drained waste rock piles.</li> <li>NexGen has been engaging with communities in the Local Priority Area (LPA); in 2019 they signed four study agreements with the Birch Narrows, Buffalo River and Clearwater River Dene Nations and Métis Northern Region 2. Each group has a Joint Working Group with NexGen.</li> <li>In 2020 we signed an agreement with Ya'thi Nene Lands and Resources for a self-directed Traditional Land Use study.</li> <li>We deal with the CNSC for the EA and licensing matters, pre-operations and construction. We also deal with the provincial Ministry of Environment in a separate but harmonized process led by the CNSC. (<i>Exploration and evaluation timeline shown</i>).</li> <li>We currently have no approvals for a mine and mill. We have started submitting formal licensing documentation, and will submit the Environmental Impact Statement (EIS) at the end of March.</li> </ul> <p><b>NSEQC reps asked:</b></p> <ul style="list-style-type: none"> <li><b>What is the depth of each layer of tailings that you will deposit underground?</b> (<i>The cells are 50 x 25 x 25 metres. The cemented paste backfill will reduce the chance of seepage.</i>)</li> <li><b>Is the UGTMF (Underground Tailings Management Facility) scalable in case you mine additional ore?</b> (<i>The cell structure is advantageous since we can build out system cells as required. We can use any area that are not mineralized, reducing the amount of PAG (potentially acid-generating rock) coming to surface.</i>)</li> <li><b>Will there be continuous engagement throughout all the processes?</b> (<i>We will make sure communities are involved prior to drilling, and are part of decommissioning and monitoring after the site reverts to the province. We want communities fully integrated throughout the process and in all aspects.</i>)</li> </ul>	<p><b>NexGen Main Office</b> 1-306-954-2275</p> <p><b>Adam Engdahl</b> Senior Project Manager 1-306-716-4770 Cell aengdahl@nxe-energy.ca</p> <p><b>Alison Auramenko</b> Regional Development Manager 306-291-4585 aauramenko@nxe-energy.ca</p> <p><b>Melissa Scansen</b> Community Consultation 306-381-7324 mscansen@nxe-energy.ca</p> <p><b>Luke Moger</b> VP Environment, Permitting and Licensing Vancouver lmoger@nxe-energy.ca</p> <p><b>Ya'Thi Nene</b> means "Lands of the North". It serves the seven Athabasca communities.</p> <p><b>Website</b> <a href="http://www.nexgenenergy.ca">www.nexgenenergy.ca</a></p>
<p><b>Wheeler River Project</b></p> <p><b>Denison Mines</b></p> <p><b>Carolanne Inglis-McQuay</b> Chad Sorba</p>	<ul style="list-style-type: none"> <li>Wheeler River is Denison's primary asset. They also own 22% of the McClean lake mill, the Midwest Project, and other exploration projects in Saskatchewan.</li> <li>The project is west via a 7-km access road from km 35 of the Key Lake-McArthur River haul road, midway between the two sites. This is in Bobby John's home trapline area, and he is helping Denison with traditional information. A 7-km power line connects to the haul road power line. A 1.6 km airstrip is planned.</li> <li>The Phoenix deposit is 400m below surface. <i>Carolanne explained the surface layout.</i> A second deposit, Gryphon, will be mined later.</li> <li>Denison plans to mine Phoenix using In-Situ Recovery (ISR). For this to work, the ore must be leachable, and the ore body must be containable. This will be achieved by freezing a wall to enclose the ore body using low-temperature brine, similar to methods used at McArthur River and Cigar Lake.</li> </ul>	<p><b>Carolanne Inglis-McQuay</b> CSR Manager 306-652-8200 X 131 cinglismcquay@denisonmines.com</p> <p><b>Chad Sorba</b> Manager, Technical Services</p> <p><b>Video:</b> Find it about halfway down the webpage. <a href="https://wheellerriverproject.ca/">https://wheellerriverproject.ca/</a></p>



<p><i>Refer to presentation</i></p>	<ul style="list-style-type: none"> <li>ISR involves injecting an acidic solution through the ore body, which picks up the uranium. The uranium-bearing solution is pumped to surface. This involves injection wells, recovery wells and monitoring wells, all pumping within the freeze wall. On surface, the uranium is stripped from the solution, dried and shipped, and the solution sent back down to pick up more uranium.</li> <li>Community engagement started in 2016. Several community-owned companies are helping develop the operation.</li> <li>10-min. video, available online; see right.</li> </ul> <p><b>NSEQC reps asked:</b></p> <ul style="list-style-type: none"> <li><b>What are the concerns with groundwater monitoring once mining is done and the freezing comes out?</b> (<i>The freeze wall will be maintained until reclamation targets have been met. There will be substantive monitoring inside and outside the freeze way during operations. There will be a full EA through CNSC for decommissioning the site.</i>)</li> <li><b>What is the grade? Is it acid-generating rock?</b> (<i>The grade is about 19%. We will be injecting acid to leach the uranium, recovering it through wells, and controlling the acid level that way. No rock will be brought to surface.</i>)</li> <li><b>What have been the successes and failures of previous projects using this extraction method?</b> (<i>ISR has been used since 1940, mostly in sandstone formations. Most operations inject water first, to understand how groundwater flows in the deposit. Most are very successful. They do not go ahead unless they can meet those criteria.</i>)</li> </ul>	
<p><b>Cluff Lake Decommissioning</b></p> <p><b>Orano Canada</b></p> <p><b>Tina Searcy</b> Stephanie Forseille Glenn Lafleur</p> <p><i>Refer to presentation</i></p>	<ul style="list-style-type: none"> <li>The closest communities to Cluff Lake are Fort Chipewyan, Clearwater River and La Loche.</li> <li>Original deposit discovered in the 1960s; EA done in 1978 through the Bayda Inquiry. Project approved in 1980. There have been multiple EAs and licenses over the years.</li> <li>Operated from 1980 to 2002, with 300 employees at peak production. The project produced 62 million pounds U<sub>3</sub>O<sub>8</sub>.</li> <li>Decommissioning license issued in 2004. Physical decommissioning done in 2006, including demolishing the mill, placing demolition debris in the Claude pit, backfilling the pit, shaping and contouring, and planting trees and grass; reclaiming waste rock piles which are revegetating well; draining the tailings area, covering with clean till and planting grasses. Overall, more than half a million native trees and shrubs were planted. Monitoring results were reported to regulators.</li> <li>The camp and warehouse were used until 2013. This was the largest industrial employer on the west side for more than 20 years. 52% of the staff were northern, and 80% of those from the west side.</li> <li>Short video. (6 minutes)</li> <li>Decommissioning criteria included removal of structures and reclamation of disturbed land to minimize the need for care and maintenance. Results have been within risk model predictions long-term. Vegetation studies continue.</li> <li>The site is well understood from decades of monitoring, and is safe for traditional land use and for camping. Water quality meets provincial objectives. Upon transfer to IC, Orano will supply a fund for ongoing monitoring.</li> <li>The is the first uranium mine in Canada to be environmentally managed from cradle to grave.</li> <li>The <b>DJ pit</b> was flooded in 2005 and has reached a stable chemocline. Waste rock and overburden from excavating the pit was used for cover or put into other pits. The areas were regraded and revegetated.</li> <li>The <b>D pit</b>, first to be mined, was flooded in 1983 and has fully revegetated. Again, the chemocline is stable and surface water meets water quality objectives.</li> <li>The <b>underground mines</b>, OP and DP: Raises and declines were backfilled and covered with a metre of clean till. They are technically monitored to ensure ongoing stability.</li> <li>The <b>mill complex</b> area, once buildings were demolished, was covered with clean till and revegetated.</li> <li>The <b>TMA</b> was covered with a minimum one metre of till and seeded to native grasses. The original environmental assessment indicated this would protect the receiving environment; it has been inspected over two decades and we are confident it is performing well. The consolidated tailings have low permeability.</li> <li>Replanted vegetation is now self-sustaining; wildlife species are returning; lakes meet water quality objectives. The site is performing as predicted. Radon is at background levels.</li> <li>Contaminant transport monitoring will continue.</li> </ul>	<p><b>Tina Searcy</b>, Regulatory and Environmental Science Manager 306-343-4525 tina.searcy@orano.group</p> <p><b>Stephanie Forseille</b>, Coordinator, SHEQ Exploration</p> <p><b>Glenn Lafleur</b>, Northern Affairs Manager.</p> <p><b>Video on You Tube</b> in English, Dene and French. Go to You Tube and search Cluff Lake Uranium Mine. Other uranium mine videos there also.</p> <p><b>Chemocline:</b> the boundary in a body of water that separates a fresh upper layer from a deeper layer containing higher concentrations of heavier contaminants.</p>

	<ul style="list-style-type: none"> <li>Orano is ready to return the land to provincial care and control under the IC program. There will likely be a CNSC Commission hearing later this year or early in 2023.</li> </ul> <p><b>NSEQC reps asked:</b></p> <ul style="list-style-type: none"> <li><b>A west side group is doing some ongoing independent testing on wild meat, berries, and water quality from the area. Will your testing continue?</b> (<i>We have concluded our studies, although some testing of vegetation and berries is still happening. We can send you fact sheets on the results of our testing.</i>)</li> </ul>	<p><b>ACTION:</b> Ashley will get the monitoring results fact sheets from Tina and distribute.</p>
<p><b>CNSC Update Overview of Uranium Mines and Mills in Saskatchewan</b></p> <p><b>Richard Snider</b></p> <p><i>Refer to presentation</i></p>	<ul style="list-style-type: none"> <li>The CNSC regulates mines, mills, refineries and fuel fabrication. They do not regulate exploration. Regulatory oversight is achieved through verification and enforcement.</li> <li>The CNSC regularly inspects each nuclear site, and assesses each operation based on 14 Safety and Control Areas (SCAs) that evaluate management systems and human performance. Conventional health and safety and environmental protection are paramount.</li> <li>The inspection program is risk-informed; higher-risk sites are inspected more often. A 10-year inspection time period is broken down into one-year plans. Generally, there are five inspections per site per year, three general and two focused specifically on the SCAs. General inspections look at radiation protection and worker health and safety.</li> <li>A decommissioned site is normally inspected every three years. Inspections are now more frequent at Beaverlodge due to the request for release of 18 sites.</li> <li>The CNSC also runs independent environmental monitoring programs (IEMP) to build public trust and to ensure the environment is safe. This is separate from monitoring required under the compliance program. Licensees are also required to monitor. Communities are encouraged to suggest species for incorporation into the monitoring program.</li> <li>In addition, there's an independent EARMF monitoring program to evaluate the safety of country foods. This was initiated in 2011 to build on a previous cumulative effects monitoring program. Samples are collected by and with local residents. Results continue to show that country food is safe.</li> <li>CNSC (led by Dr. Rachel Lane) is leading the four-year Canadian Uranium Workers' Study (CANUWS), in which the Saskatchewan government, the uranium industry and the University of Saskatchewan are also participating. About 80,000 current uranium workers are included in the study, which aims to understand the impact of occupational radon exposure on human health in low-exposure workplaces. Data from seven Saskatchewan sites will be included in the study.</li> <li>Indigenous communities and First Nations with a direct local interest in a given project can apply for participant funding to take part in Commission hearings, of the project might impact traditional territory or rights.</li> </ul>	<p><b>Richard Snider</b>, Senior Project Officer. CNSC Project Officer for Beaverlodge, Key Lake and NexGen's Rook 1 Project. 306-975-4955 <i>Richard.snider2@canada.ca</i></p> <p>The CNSC's mission is to regulate the development, production and use of nuclear energy, and to disseminate scientific, regulatory and technical information.</p> <p>The CNSC includes an independent Commission and staff. Staff do the groundwork and make recommendations to the Commission, but the Commission makes the regulatory decisions.</p> <p>CNSC has offices at nuclear power plants, in Ottawa, and four regional offices, including one in Saskatoon to look after the province's uranium mines and mills.</p>
<p><b>CNSC Site Updates</b></p> <p><b>Richard Snider</b></p> <p><i>Refer to presentation</i></p>	<ul style="list-style-type: none"> <li><b>Rabbit Lake:</b> In care and maintenance since 2016, with no planned restart date. Current activities include facility preservation and water treatment. Financial Assurance is currently \$213 million. A license renewal hearing is likely in 2023, along with Key Lake and McArthur River.</li> <li><b>McArthur River:</b> Production started in 1999 and was suspended in 2018; now gradually restarting. Financial assurance is \$42.1 million following an updated decommissioning plan. License renewal due on 2023; Cameco is asking for an indefinite license; staff are evaluating this request.</li> <li><b>Key Lake:</b> Processes McArthur River ore. Production suspended in 2018; now gradually restarting. Financial assurance \$222.5 million. Recent upgrades include mill automation and a yellowcake packaging upgrade. There will likely be a decision on a 2021 license renewal request in summer of 2023.</li> <li><b>Cigar Lake:</b> Ore is milled at McClean Lake. License renewed in 2021 for 10 years. Financial Assurance updated in 2021, not \$61.8 million. This site added a crushing area for PAG, a supplemental concrete fill underground, and a cooling loop. These are under review.</li> <li><b>McClean Lake:</b> In 2021, CNSC approved an application to increase the height of the JEB TMF by 10.5 metres. The height of the consolidated tailings will increase by 14 metres. Updated financial assurance is \$103 million, including all planned facilities to 2025. License expires June 30, 2027.</li> </ul> <p><b>Decommissioned sites:</b></p>	<p><b>PAG:</b> Potentially acid-generating rock. This has to be kept on a lined ad and water collected and treated in order to not add acidity to the environment.</p> <p><b>Financial Assurance:</b> The money provided upfront, as an irrevocable Letter of Credit, by an operating company to cover the cost of site cleanup should the company be unable to do it. The funds are held by a bank, and not available to government for any other purpose.</p> <p><b>Regulatory Oversight Reports</b> for uranium mines and mills are available on the CNSC website at <a href="http://nuclearsafety.gc.ca">nuclearsafety.gc.ca</a>,</p>

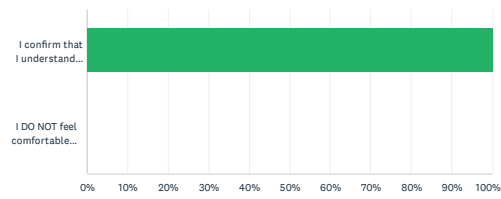
	<ul style="list-style-type: none"> <li>• <b>Beaverlodge:</b> Operated 1952-1982, then post-decommissioning monitoring. Five properties released from CNSC licensing in 2009, 20 in 2019 (one free release). Cameco is the licensee, with funds from Canada Eldor. Commission hearing March 24 to release 18 more sites for a total of 43; if approved, that will leave 27 properties still under license. License renewal due 2023; we anticipate a request for two years.</li> <li>• Performance objectives for release include acceptable gamma radiation levels of less than one millisievert (mSv) per hour; boreholes plugged; caps designed properly; stable crown pillars; debris free; and water quality within predictions.</li> <li>• <b>Cluff Lake:</b> Decommissioned in 2002-2005; post-decommissioning monitoring since then. Vegetation is growing well. CNSC confident Orano is meeting the terms of the license. Orano has submitted their closure report and long-term maintenance plan. There will be a Commission hearing after a technical review if this information is complete, probably late 2022 or early 2023. Financial Assurance is at \$3.5 million. License renewal is due on July 31, 2024.</li> </ul> <p><b>Sites in remediation:</b></p> <ul style="list-style-type: none"> <li>• <b>Gunnar:</b> Saskatchewan Research Council (SRC) is the licensee. Reclamation under way; Gunnar main and Central tailings areas are almost complete. Openings to underground workings are complete, with stainless steel caps to be installed this year. Remediation at Langley Bay is delayed because of high water. Waste consolidation and two landfills are part of the plan.</li> <li>• <b>Lorado:</b> Remediation was completed in 2016. The license will move to a monitoring phase, and the need for a designated CNSC officer will be removed in 2023. Senior management will be able to approve a license renewal.</li> </ul> <p><b>Regulatory Oversight Report (ROR):</b></p> <ul style="list-style-type: none"> <li>• This is an annual report card on how the sites are doing in terms of radiation and environmental protection as well as conventional health and safety. We review accident stats, event reports and corrective actions, and work with the province. <ul style="list-style-type: none"> <li>○ The average individual effective radiation dose was well below the 50 mSv/year limit, and the 20 mSv/year limit over five years.</li> <li>○ All spills in 2021 were of low significance.</li> <li>○ Uranium, selenium, molybdenum and radium 226 in effluent were all a small fraction of regulatory limits.</li> </ul> </li> <li>• In 2021, all five active uranium sites met regulatory requirements.</li> </ul> <p><b>Proposed projects</b></p> <ul style="list-style-type: none"> <li>• <b>Rook I (NexGen Energy):</b> The draft EIS is due for technical review by March 31. A license application was submitted in 2019 under CEAA. This site proposes 100% underground tailings.</li> <li>• <b>Wheeler River (Denison Mines):</b> This will be the first In Situ Recovery (ISR) uranium mine in Canada. The EA is under way; the draft EIS will be submitted for technical review this summer. A license application will follow.</li> <li>• <b>PLS (Fission):</b> This site is currently doing a provincial EA; no federal EA is required. CNSC is providing comments. No license application to date.</li> </ul> <p><b>NSEQC reps asked:</b></p> <ul style="list-style-type: none"> <li>• <b>Would Dr. Lane come and talk to us? (I'm sure she would)</b></li> <li>• <b>Has there been any study to link smoking and radon? (I think so. Dr. Lane could speak to that).</b></li> <li>• <b>Why does Fission not require a federal EA? (Both NexGen and Denison triggered their EA under CEAA, which has different rules than the IAA which Fission is under. Fission is below the cutoff size for a federal EA.)</b></li> <li>• <b>What if they extend their mine later? (It's more about the number of tonnes mined per year. If they increase that, it would trigger an impact assessment. Mine life is based on reserves or resources; companies try to be optimistic on that).</b></li> </ul>	<p>along with other information on each site. Just google ROR Reports.</p> <p><b>mSv:</b> Millisievert, a measure of the absorption of radiation by tissue.</p> <p><b>CEAA: Canadian Environmental Assessment Act 2012.</b> This legislation was superseded in 2019 by the federal <b>Impact Assessment Act (IAA).</b></p> <p><b>EA:</b> Environmental Assessment</p> <p><b>EIS:</b> Environmental Impact Statement.</p>
<b>Closing Round Table</b>	<ul style="list-style-type: none"> <li>• Most reps stated that they enjoyed the meeting and were glad to be back on the job. Particular points made: <ul style="list-style-type: none"> <li>○ Like to see more reps from my area here. More First Nations should be here.</li> <li>○ Will take to my community, band, Grand Council and maybe FSIN.</li> <li>○ Learned a lot about mining. Passionate about the environment.</li> <li>○ Need to stay on top of potential adverse environmental effects.</li> </ul> </li> </ul>	



	<ul style="list-style-type: none"> <li>○ Need Fission here.</li> <li>○ Get the Ministry to explain the roles and responsibilities.</li> <li>○ NSEQC should go into communities to explain their role and how they can help with information.</li> <li>○ Need a newsletter and the exploration project heatmap.</li> <li>○ Like more information on the ISR mining and how the groundwater is protected after mining stops.</li> <li>○ Today's information focused on mining, which is the roots of the NSEQC. Inform each other. Other environmental topics can also be discussed.</li> </ul>	
<b>Next meeting</b>	<ul style="list-style-type: none"> <li>• TBA, perhaps early June.</li> </ul>	

Q1 By checking this box, you confirm that you understand the purpose of the survey, how the information you share will be used, and that participation in the survey is voluntary.

Answered: 39 Skipped: 0

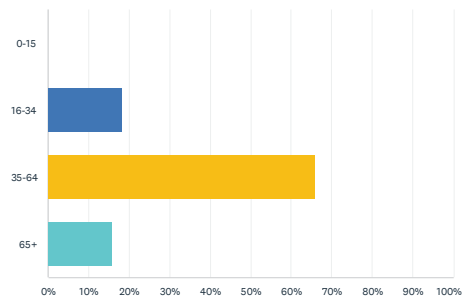


ANSWER CHOICES	RESPONSES	
I confirm that I understand the purpose of this survey, how the information will be shared, and that participation is voluntary	100.00%	39
I DO NOT feel comfortable proceeding with this survey and would like to exit	0.00%	0
<b>TOTAL</b>		<b>39</b>

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Q2 Age:

Answered: 38 Skipped: 1

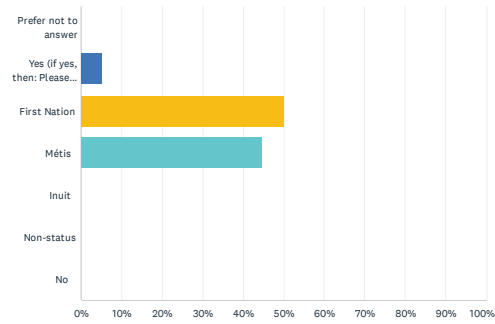


ANSWER CHOICES	RESPONSES	
0-15	0.00%	0
16-34	18.42%	7
35-64	65.79%	25
65+	15.79%	6
<b>TOTAL</b>		<b>38</b>

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**Q3 Do you identify as an Indigenous person (First Nations, Métis, or Inuit?)** Answers to this question are entirely voluntary and not required.

Answered: 38 Skipped: 1

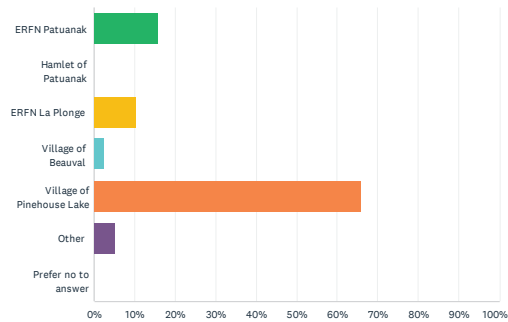


ANSWER CHOICES	RESPONSES	
Prefer not to answer	0.00%	0
Yes (if yes, then: Please select from the following which best applies to you.)	5.26%	2
First Nation	50.00%	19
Métis	44.74%	17
Inuit	0.00%	0
Non-status	0.00%	0
No	0.00%	0
<b>TOTAL</b>		<b>38</b>

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**Q4 Where do you live most of the year:**

Answered: 38 Skipped: 1



ANSWER CHOICES	RESPONSES	
ERFN Patuanak	15.79%	6
Hamlet of Patuanak	0.00%	0
ERFN La Plonge	10.53%	4
Village of Beauval	2.63%	1
Village of Pinehouse Lake	65.79%	25
Other	5.26%	2
Prefer no to answer	0.00%	0
<b>TOTAL</b>		<b>38</b>

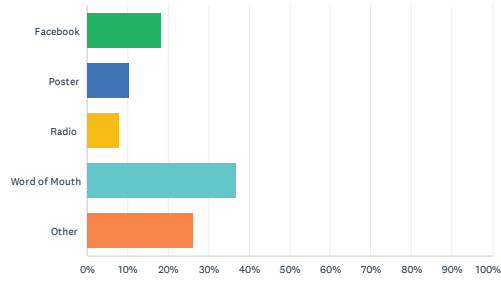
#	PLEASE IDENTIFY WHICH OTHER COMMUNITY YOU ARE FROM	DATE
1	Patuanak	5/30/2022 3:54 PM

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## Q5 How did you hear about this survey?

Answered: 38 Skipped: 1

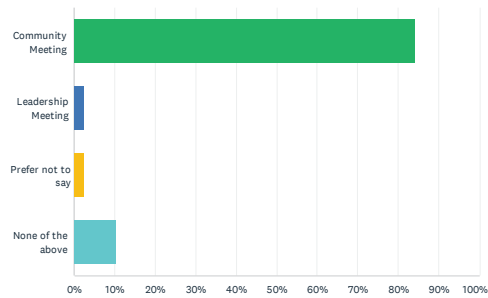


ANSWER CHOICES	RESPONSES	
Facebook	18.42%	7
Poster	10.53%	4
Radio	7.89%	3
Word of Mouth	36.84%	14
Other	26.32%	10
<b>TOTAL</b>		<b>38</b>

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## Q6 Which of the following presentations did you attend? Check all that apply.

Answered: 38 Skipped: 1



ANSWER CHOICES	RESPONSES	
Community Meeting	84.21%	32
Leadership Meeting	2.63%	1
Prefer not to say	2.63%	1
None of the above	10.53%	4
<b>TOTAL</b>		<b>38</b>

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## Q7 Are there any topics of particular concern that Denison needs to pay special attention to?

Answered: 35 Skipped: 4

#	RESPONSES	DATE
1	Mostly just environmental	6/3/2022 10:54 AM
2	Environmental & Research	6/3/2022 10:51 AM
3	Underground water with acid	6/3/2022 10:40 AM
4	Mostly providing jobs	6/3/2022 10:39 AM
5	Water not to disturb in its present healthy state, very important	6/3/2022 10:35 AM
6	Impact on the environment and restoring to how it was after the project.	6/3/2022 10:32 AM
7	Restoring our environment to its original state or even better	6/3/2022 10:30 AM
8	Covid-19 unvaccinated and restrictions (future)	6/3/2022 10:28 AM
9	No	6/3/2022 10:25 AM
10	To be honest I have no idea what it's about but I'm eager and interested to know more.	6/3/2022 10:23 AM
11	What's in it for communities affected	6/3/2022 10:18 AM
12	Yes, no cell service rom km 10 - km 195 key lake road	6/3/2022 10:13 AM
13	no	6/3/2022 10:09 AM
14	Accessibility for people to visit, safety, accessibility into buildings	6/3/2022 10:08 AM
15	Water being used by drillers, where does water flow as it is being used? Is it contained or is it contaminated water being released to the environment?	6/3/2022 9:59 AM
16	Jobs	6/3/2022 9:56 AM
17	Local employment is important to me	6/3/2022 9:54 AM
18	More recycling projects	6/3/2022 9:50 AM
19	N/A	6/3/2022 9:48 AM
20	Hoping Denison will participate in northern communities in developing qualified participants.	6/3/2022 9:47 AM
21	Not at all	6/3/2022 9:41 AM
22	To provide jobs	6/3/2022 9:22 AM
23	i) community concerns a)traditional lands b)climate change c)exploitation of the north, no returns	6/3/2022 9:19 AM
24	Other community politics.	6/3/2022 9:16 AM
25	Traditional cabins on land.	6/3/2022 9:11 AM
26	Info is good. More info is good (my gmail).	6/3/2022 9:06 AM
27	Don't think so they covered most things	6/2/2022 10:47 AM
28	I think Denison covered all the main topics very well.	6/1/2022 5:28 PM
29	No	6/1/2022 5:23 PM
30	No	6/1/2022 4:33 PM

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31	Environmental	6/1/2022 4:31 PM
32	Environmental impacts and the creation of jobs for northerners	5/31/2022 5:08 PM
33	Nope	5/30/2022 6:34 PM
34	Employment for our young people	5/30/2022 5:30 PM
35	No	5/30/2022 3:55 PM

### Q8 Are there any things missing that Denison should consider to reduce the effects of the Project to the environment?

Answered: 35 Skipped: 4

#	RESPONSES	DATE
1	Environmental and the environment	6/3/2022 10:54 AM
2	Environmental Jobs	6/3/2022 10:51 AM
3	Test surrounding lakes	6/3/2022 10:40 AM
4	No, there's good information	6/3/2022 10:39 AM
5	Yes, air quality	6/3/2022 10:35 AM
6	No response	6/3/2022 10:32 AM
7	No response	6/3/2022 10:30 AM
8	No- work at Denison Mine couple shifts, like the safe orientated culture and respect of land and native people that live near the mine sites.	6/3/2022 10:28 AM
9	Are these surface pipes spell ready at all times?	6/3/2022 10:25 AM
10	I think he has done a great job at being transparent with the community and that's awesome!	6/3/2022 10:23 AM
11	No	6/3/2022 10:18 AM
12	animal impacts, spills, etc	6/3/2022 10:13 AM
13	no	6/3/2022 10:09 AM
14	Make sure the animals come back, focus on caribou habitat management, forward planning	6/3/2022 10:08 AM
15	Garbage, paper could be recycled.	6/3/2022 9:59 AM
16	Pretty much covered	6/3/2022 9:56 AM
17	I want to see yearly reports about the environment	6/3/2022 9:54 AM
18	Sounds good	6/3/2022 9:50 AM
19	N/A	6/3/2022 9:48 AM
20	Reassure land users mining practices used are the safest.	6/3/2022 9:47 AM
21	Maybe in the future	6/3/2022 9:41 AM
22	No, there is good information already	6/3/2022 9:22 AM
23	impact of exploration & activity on animals, water, etc.	6/3/2022 9:19 AM
24	None	6/3/2022 9:16 AM
25	No response	6/3/2022 9:11 AM
26	Info is good. More info is good (my gmail).	6/3/2022 9:06 AM
27	No	6/2/2022 10:47 AM
28	Maybe denison can learn from the people around this project how to reduce the effects of the project to the environment	6/1/2022 5:28 PM
29	No	6/1/2022 5:23 PM
30	No	6/1/2022 4:33 PM

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31	None	6/1/2022 4:31 PM
32	Cant think of any	5/31/2022 5:08 PM
33	I don't think so	5/30/2022 6:34 PM
34	No	5/30/2022 5:30 PM
35	No	5/30/2022 3:55 PM



### Q9 Are there any topics that you would like to see including in monitoring plans?

Answered: 35 Skipped: 4

#	RESPONSES	DATE
1	environmental jobs	6/3/2022 10:54 AM
2	Mostly environmental plans	6/3/2022 10:51 AM
3	Long term monitoring. Surface water.	6/3/2022 10:40 AM
4	Not really	6/3/2022 10:39 AM
5	Need someone to teach safety, attendance, by leader	6/3/2022 10:35 AM
6	Jobs given to the community	6/3/2022 10:32 AM
7	Jobs given to community, better yet "communities", giving opportunity	6/3/2022 10:30 AM
8	No	6/3/2022 10:28 AM
9	How every pipe is double plated and spell prove ready to protect the environment	6/3/2022 10:25 AM
10	No.	6/3/2022 10:23 AM
11	No	6/3/2022 10:18 AM
12	yes, how are they freezing the drilling and does it thaw out or continue freezing	6/3/2022 10:13 AM
13	no	6/3/2022 10:09 AM
14	Water, fish. Long term monitoring-put money aside for this.	6/3/2022 10:08 AM
15	Water consumption, where does water com from, is it treated.	6/3/2022 9:59 AM
16	No	6/3/2022 9:56 AM
17	More local meetings like this	6/3/2022 9:54 AM
18	Water sampling	6/3/2022 9:50 AM
19	N/A	6/3/2022 9:48 AM
20	Continue reporting operational successes and failures	6/3/2022 9:47 AM
21	Future-wise	6/3/2022 9:41 AM
22	No	6/3/2022 9:22 AM
23	mental health; how are people feeling about this	6/3/2022 9:19 AM
24	ERFN- priority community publicized.	6/3/2022 9:16 AM
25	How the uranium was discovered.	6/3/2022 9:11 AM
26	Info is good. More info is good (my gmail).	6/3/2022 9:06 AM
27	No I think there doing a good job	6/2/2022 10:47 AM
28	I would like to see more pros of the denison project, and how they work.	6/1/2022 5:28 PM
29	Nope	6/1/2022 5:23 PM
30	No	6/1/2022 4:33 PM
31	None	6/1/2022 4:31 PM

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32	Indigenous voices	5/31/2022 5:08 PM
33	Not really all good	5/30/2022 6:34 PM
34	Elders from our community to be liaison workers	5/30/2022 5:30 PM
35	No	5/30/2022 3:55 PM

### Q10 What additional information would be helpful for you to understand the Project and its potential impacts to people and the environment?

Answered: 35 Skipped: 4

#	RESPONSES	DATE
1	courses and jobs	6/3/2022 10:54 AM
2	more understanding of environmental	6/3/2022 10:51 AM
3	What benefits does communities get	6/3/2022 10:40 AM
4	It's my first time to attend meeting but find good information	6/3/2022 10:39 AM
5	Always explain the motto "help us help you"	6/3/2022 10:35 AM
6	For our younger generation, it would be great for the company to give out scholarships, to this industry.	6/3/2022 10:32 AM
7	Younger adults be involved and educate them.	6/3/2022 10:30 AM
8	Remain transparent with communities, step by step projects.	6/3/2022 10:28 AM
9	Plans on how you guys would control plans	6/3/2022 10:25 AM
10	Remain transparent with the community and always ask before major changes.	6/3/2022 10:23 AM
11	I would like to better understand the effect it would have on our environment.	6/3/2022 10:18 AM
12	more community meetings	6/3/2022 10:13 AM
13	I would like to know how long this project is.	6/3/2022 10:09 AM
14	More opportunities for people with disabilities. Job coach for people with disabilities.	6/3/2022 10:08 AM
15	More practice on recycling. Are water samples being taking for human consumption.	6/3/2022 9:59 AM
16	No additional	6/3/2022 9:56 AM
17	Regular community meetings are important	6/3/2022 9:54 AM
18	Water runoff from drillers, is it safe.	6/3/2022 9:50 AM
19	N/A	6/3/2022 9:48 AM
20	Make provisions for local community Elder representation in decision making	6/3/2022 9:47 AM
21	Hopefully jobs in the future	6/3/2022 9:41 AM
22	first time to attend, good information already	6/3/2022 9:22 AM
23	explanation in Dene every step of the way	6/3/2022 9:19 AM
24	none	6/3/2022 9:16 AM
25	A community liaison worker- keep people up to date.	6/3/2022 9:11 AM
26	Info is good. More info is good (my gmail).	6/3/2022 9:06 AM
27	None	6/2/2022 10:47 AM
28	Just how the actual site works, and what they do there. What are the jobs and what do they do.	6/1/2022 5:28 PM
29	Nope	6/1/2022 5:23 PM
30	None	6/1/2022 4:33 PM

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### Wheeler River Project-Community Engagement Spring 2022

31	None	6/1/2022 4:31 PM
32	more graphs please, not enough numbers on these infographics for my taste	5/31/2022 5:08 PM
33	All good	5/30/2022 6:34 PM
34	The family trapline impacts my family because my dad [redacted] was the trapper right in that area.	5/30/2022 5:30 PM
35	No	5/30/2022 3:55 PM

## 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 Nuhené.

Environmental Impact	Regulatory Path	Key Milestones	Current Status
Environmental Impact Statement (EIS) Review	Environmental Impact Statement (EIS) Review	Final EIS Review	Final EIS Review
Environmental Impact Statement (EIS) Review	Environmental Impact Statement (EIS) Review	Final EIS Review	Final EIS Review
Environmental Impact Statement (EIS) Review	Environmental Impact Statement (EIS) Review	Final EIS Review	Final EIS Review
Environmental Impact Statement (EIS) Review	Environmental Impact Statement (EIS) Review	Final EIS Review	Final EIS Review

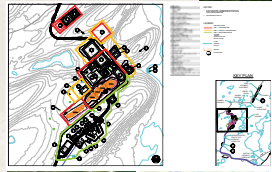
### Key Advantages of ISR Mining

- 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



**Denison Mines**

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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

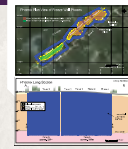
### ISR Process Overview



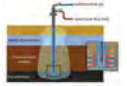
### Ground Freezing - Freeze Wall

- 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

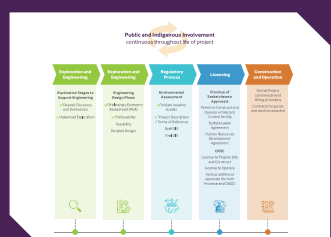
- Understand and evaluate potential environmental impacts of a project before any irreversible decisions are taken that may lead to negative effects on the environment, natural resources, or public health and safety
- Grant regulatory permits or licences
- Review and approve Environmental Impact Statement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

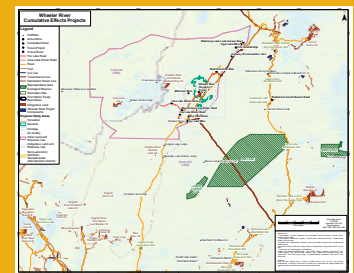
A Cumulative Effects Assessment (CEA) is completed to ensure that the incremental effects from multiple activities in an area (environment, human health, land use, etc.) are considered together. Project activities can interact with Valued Components; when interactions cause Valued Components' conditions 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, raising, 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—wasteful 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 context, 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 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
- Kinship Mine Local 39 (Ponchoal)
- Minto Nation - Saskatchewan
- A La Bale Mine Local 31 (Weila Cross)
- Spotted Horse Local 37 (Beauval)
- Patuxent Mine Local 82 (Patuxent)
- Northern Hamlet of Patuxent
- Northern Village of Patuxent
- Northern Village of Weila Cross
- Northern Village of Beauval

Other communities, organizations and groups of interest:

- Lac la Ponge Indian Band
- Birch Narrows Dene Nation
- Buffalo River Dene Nation
- Hatcher Lake First Nation
- Black Lake First Nation
- Fond du Lac First Nation
- Minto Nation - Saskatchewan
- Yath'Né Land and Resource Office
- Prince Albert Grand Council
- Meadow Lake Tribal Council
- Commercial Trappers
- Commercial Fishers
- Commercial Lodgers
- 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 effluent 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

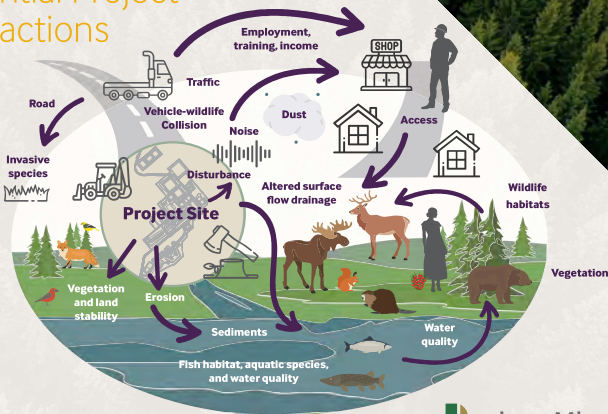
Here are some examples of Denison's support in 2021:

- Entered into an Exploration Agreement with English River First Nation
- Minto Nation Saskatchewan Region 3 South Day Gathering
- Patuxent Mine Group and their market garden initiative
- Pinehouse Lake hockey tournament
- Improvements to the English River First Nation Culture Camp at the Meadow Lake Reserve at 160km
- Many Christmas initiatives in the region, including those in Beauval, Weila Cross, and the Hamlet of Patuxent

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## Wheeler River Potential Project Interactions

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# The Wheeler River Project

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# Wheeler River Project

## Project Overview

- Eastern Athabasca Basin
- 35km northeast of Key Lake Mill
- 35km southwest of McArthur River Mine
- Within the boundaries of Treaty 10, the traditional territory of English River First Nation, in the homeland of the Métis, within Nuhenéné.
- The purpose is to construct, operate, and decommission an ISR uranium mine and processing plant.



# Wheeler River Project

<b>Location</b>	Northern Saskatchewan, Canada.	
<b>Project Components and Activities:</b>	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.
<b>Inputs</b>	freshwater, chemicals (for mining, uranium processing, treating water), electricity, and fuel.	
<b>Outputs</b>	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.	
<b>Product</b>	U3O8 or yellowcake. The product Denison sells is ultimately used as fuel in nuclear power plants, supporting global efforts to reduce GHG emissions.	
<b>Employment</b>	Approximately 300 workers during Construction and 180 during Operation. The Project will be operated as a fly-in-fly-out operation.	
<b>Project Duration:</b>	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.	

# Wheeler River Project

## Schedule of Activities

	Construction (Year 1 to 3)	Operation (Year 3 to 18)	Decommissioning (Year 18 to 23)	Post-Decommissioning (Year 23 to 38)
Key Project Components	Develop access roads and air strip		Facility removal	Active environmental monitoring of vegetation growth; monitoring of surface water and groundwater quality; monitoring of wildlife site
	Site preparation and earthworks			
	ISR wellfield drilling	Operation of the ISR wellfield ISR wellfield drilling	Process water treatment and release Mining horizon remediation	
	Freeze hole drilling and ground freezing	Freeze hole drilling and ground freezing	Thawing of freeze wall	
	Development of surface infrastructure (camp, operations centre, plants, ponds, pads and support facilities)	Operation of processing plant and production of uranium concentrate	Decontamination of surface facilities, injection, recovery and monitoring wells Facility removal	
		Water withdrawal from groundwater or surface water body		
		Treated effluent release to surface water body	Site water management, treatment and release	
		Waste management		
	Active environmental monitoring of vegetation growth; monitoring of surface water and groundwater quality; monitoring of wildlife site			



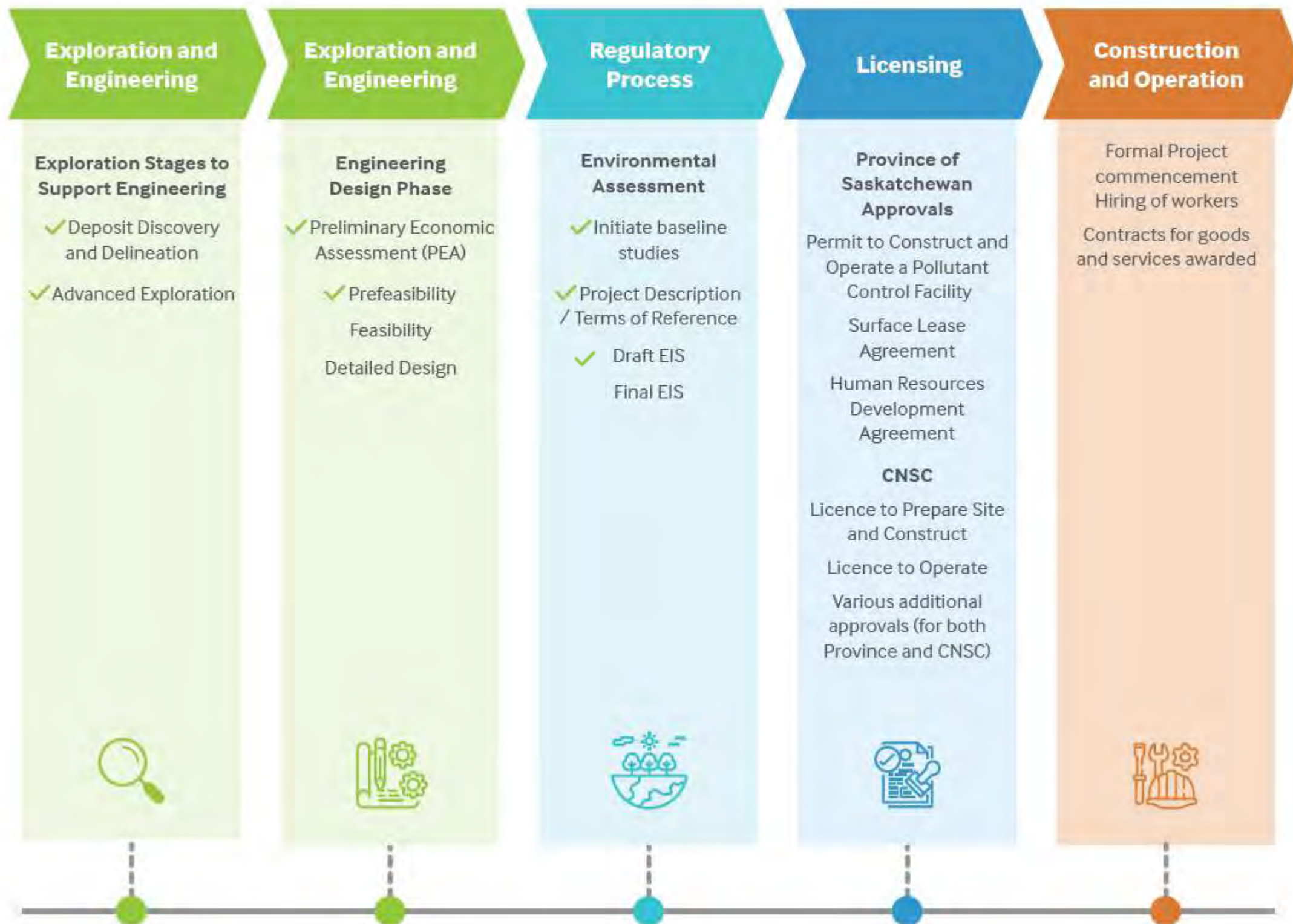
# Wheeler River Project





# Wheeler River Project

## Regulatory Process



# Questions





# Denison – Wheeler River Project

## NR 1 Regional Council Introduction to Canadian Nuclear Safety Commission (CNSC), Denison and Government of Saskatchewan

Date: Saturday February 11, 2023

Location: Dakota Dunes

Time: 10am – 3pm

Attendees:

Elder Max Morin – MNS  
 Shannon Landrie-Crossland – MNS  
 Brent Laroque – MNS  
 Roslyn Smit – MNS  
 Andrew Spriggs – MNS  
 Heidi Klein – Two Worlds  
 Eliza Bethune – Two Worlds  
 Brianne England – Province of SK  
 Aimann Sadik – Province of SK  
 Jessica Way – CNSC  
 Janna Switzer – DEN  
 Chad Sorba – DEN  
 Carolanne Inglis-McQuay - DEN  
 Allen Augier – UCity  
 George Natomagan – Weyakwin  
 Laura Burnouf – NR1 Regional President  
 Larry Lavalee – Timber Bay  
 Maxine Morin – IleX  
 Lazur Lafleur – La Ronge

### **Notes taken by Denison in relation to questions / comments made to Denison**

Theme from Max Morin: What are we getting? What are we going to get from this? Don't pollute the area.

Lazur – How much water discharged?

A – 40m<sup>3</sup>/hour

Allen Augier – Quality of ore contaminants; consistency of the ore

A – Very consistent deposit; clean ore body; since 40% grade doesn't leave much room for contaminants

Lazur – How far off the road? Do you have to build the road?

A – we are 4km west of road; upgrade portions of road

Lazur – How far from the Wheeler River?

A – about 30km away

Lazur – What is the strategy for the release for contaminants? Strategy for the waste water management?

A – Runoff around the various features of the site will be collected and treated; treated effluent discharge into whitefish lake

Lazur – If you don't have 100% recovery, what is the rehabilitation of the area?

A – We will have 85% recovery rate; we will flush the area; check the area and assess the contaminants; neutralize the area if necessary

Brent – Original source of water for the lixiviant?

A – groundwater or surface water; it is a near balanced system; but we will likely draw a bit more than we discharge

Laura – How effective is the freeze wall? What happens when they melt?

A – 1<sup>st</sup> step is to create a system where there is an inward gradient of pressure toward the recovery wells, keeping the lixiviant away from the freeze wall; Wall will take 12-18 months to build the wall; 10m wide wall; while the freeze wall is in place it will have to be regulated (otherwise it will grow too large); the freeze wall won't be turned off until the mining is done

Max Morin – Who will be doing the monitoring? The Province? The Federal Government? How will we be part of the process?

A – Pointed to EARMP; existing CNSC IEMP framework; Province described their monitoring process; Denison indicated that we have a significant interest in making sure there is transparency and trust in relation to the monitoring results.

Lazur – Are there initiatives for Indigenous monitoring?

A – yes, there are various Federal programs (Indigenous Guardian program, EARMP, CNSC IEP)

Allen – The water that is going through the water treatment system; is it being filtered to prevent solids from going into the environment?

A – Solids will be removed, treated to regulatory requirements

Lazur – What would be your precipitates that come out of the water by discharge?

A – (Janna) I'd have to review the details on this; but I can speak to the fact that there moly is not a concern

Brent – What are your release standards?

A – CCME, Saskatchewan Surface Water Quality Guidelines – we've picked the most stringent standards

Lazur – Water flow from the southeast from the site?

A – yes

Lazur – Confirmation that MaxPerf is like a mini direction drill

A – yes

Brent – monitoring wells will be tailored to the mining plan and determined in accordance to the location of the freeze wall, etc

A – confirmed

Max – are you fracking? Will you use enough pressure that will open up the land?

A – No, we are not fracking. The pressures we are using are very low levels; for example, less than the tire pressure in your bicycle. We use the low level pressures within a controlled environment

Lazur – did your initial baseline studies consider the baseline work from Key Lake and McArthur River?

A – to a small degree, but our baseline studies are focussed at the Wheeler River Project site specifically.





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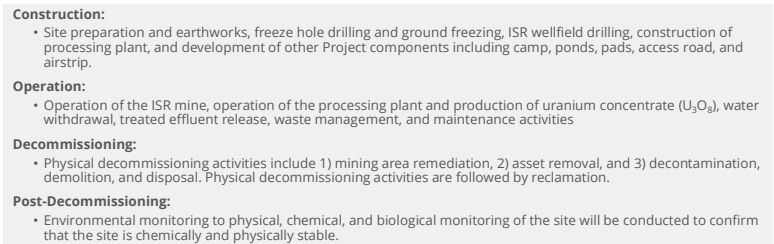
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## Project Introduction: Location



## Project Introduction: Schedule of Activities



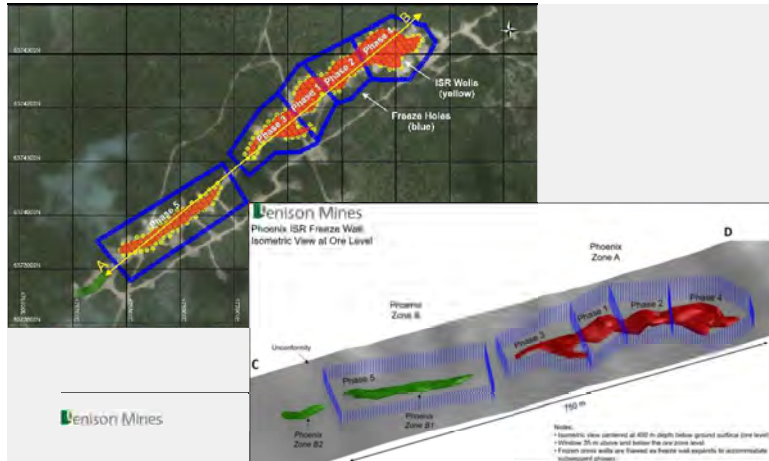
## Project Introduction: Site Layout



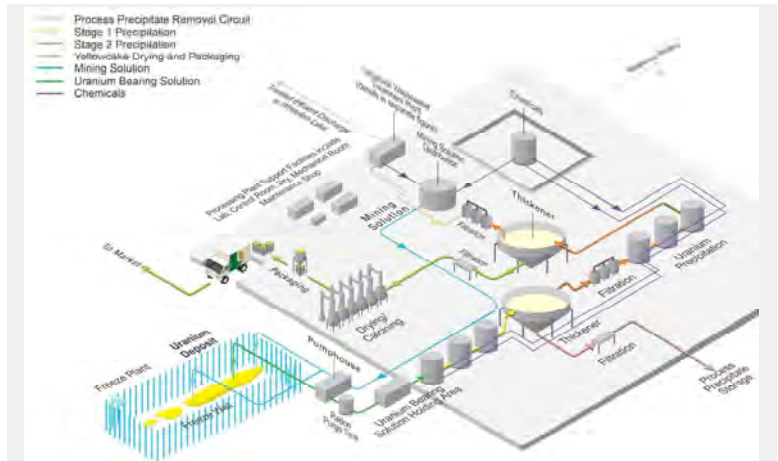
## Project Technology: In Situ Recovery and Wellfield Remediation



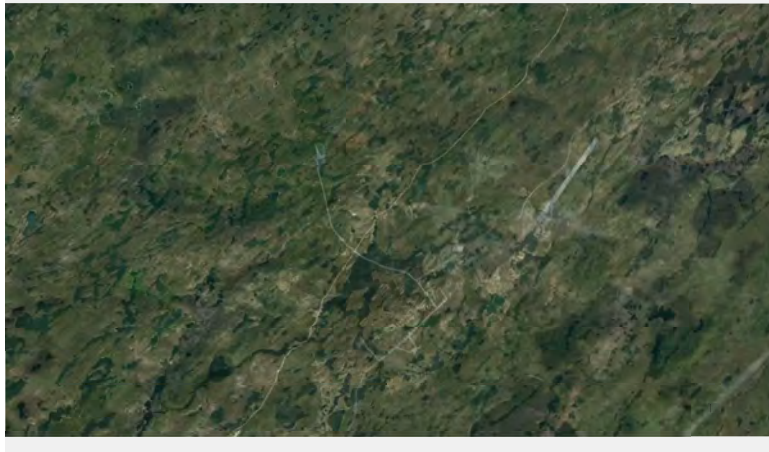
## Project Technology: Freeze Wall



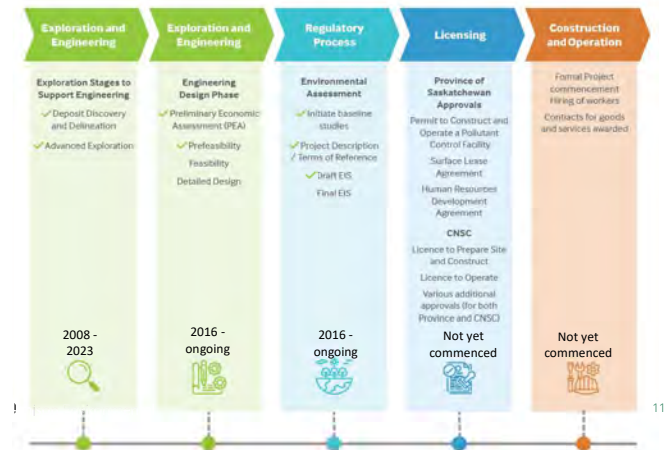
## Project Technology: Processing



## Project Technology: Video Overview



## Regulatory Process

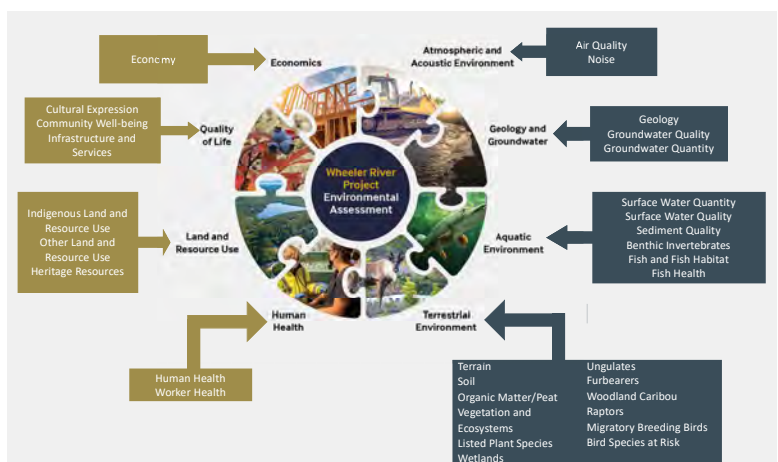


## Environmental Assessment Approach and Methodology

- Identifying Valued Components, Key Indicators, Measurable Parameters and setting temporal and spatial boundaries
- Highlighting the influence of IK, LK, and engagement on the assessment
- Describing the existing environment
- Completing the environmental assessment process using the following general methodology:



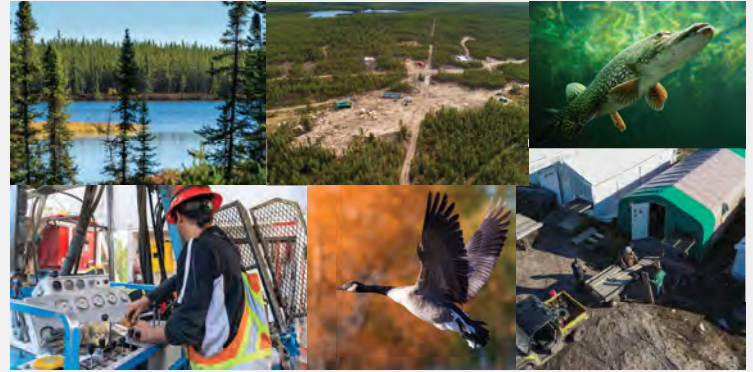
## Environmental Assessment Approach and Methodology





## The Wheeler River Project: Project Video

Questions & Discussion



Enison Mines



**Denison – Wheeler River Project**  
**NR 3 Regional Council Introduction to**  
**Canadian Nuclear Safety Commission (CNSC), Denison and**  
**Government of Saskatchewan**

Date: Sunday February 12, 2023

Location: Dakota Dunes

Time: 10am – 3pm

Attendees:

Glen McCallum – MNS  
Tex Bouvier – MNS  
Shannon Landrie-Crossland – MNS  
Andrew Spriggs – MNS  
Brennan Merasty – MNS  
Brent Laroque – MNS  
Roslyn Smith – MNS  
Janna Switzer – DEN  
Carolanne Inglis-McQuay – DEN  
Chad Sorba – DEN  
Brianne England – GoS  
Fred Kenny  
Nancy Laliberte  
Lisa Maurice  
Percy Kenny  
Richard Morin  
Louis Gardiner  
Kim Burnouf  
Joe Daigneault  
Riley Couilonneur  
Max Morin  
Eliza Bethune (Two Worlds)  
Heidi Klein (Two Worlds)  
Jes Way (CNSC)  
Mike Natomagan

Notes taken by Denison in relation to questions / comments made to Denison

Q – how far from Wheeler River?

A – 28km north of the Wheeler River

Q – what is the lake called near the site?

A – Whitefish Lake, named by the late Bobby John, the ERFN trapper

Q – what kind of testing have you done in the area to know this mining method will work?

A – Four years of testing; moving water through the ore body, then moving a salt tracer through the ore body to know where the liquids move; followed by feasibility field test this past summer, using lixiviant or mining solution to confirm uranium could be leached from the ore body in a small scale test.

Q – What was the recovery you obtained?

A – Test wasn't intended to obtain a particular recovery rate; it was intended to demonstrate that we could leach uranium, control fluids and return the conditions underground to levels required by the government.

Q – What was the recovery of the reagents you put into the ground?

A – We recovered the majority of the reagents through flushing and injection of a neutralizing agent. We also confirmed there was not movement of reagents beyond the mining area

Q – Can you prove that the reagents were contained (in the FFT)?

A – We can. The monitoring we undertook showed that nothing moved beyond the mining zone. We met the groundwater criteria and are continuing to monitor to confirm no excursions.

Q – Do you have a disaster / accident back up plan in case your work / monitoring results aren't what you expect.

A – we have a financial assurance we've provided to the Province that they are holding in full – in case that the monitoring shows otherwise to the results.

Q – Is this method used at other mines in Canada? Globally?

A – ISR Mining accounts for 45-50% of the world's production of uranium. In Canada, the comparable type of mining is solution mining for potash mining in southern Saskatchewan. But this will be the first time that ISR will be used in the Athabasca Basin uranium operations.

Q – What happens when you take out the uranium from the ore body?

A – the mining solution will leach the uranium; it won't take all the materials out; there will be some materials left behind, leaving a spiderweb-like network that will be filled with mining solution and then groundwater. There won't be wide open voids left behind like those that create shafts and drifts, etc – no grouting required. It is estimated that on surface there could be a maximum disturbance or slumping of 6-7cm.

Q – Can you guarantee this?

A – nothing is guaranteed but we have done systematic testing to de-risk the project and feel confident that the results to date; that we can move this project ahead based on the information we have today.

Q – General comments made about technical monitoring versus community monitoring and trust and confidence in monitoring data. Denison does assessment and monitoring; how can we have training and monitoring in the communities? The cultural part of monitoring is important. Traditional users should be included in monitoring; the Province is not including northern users in the monitoring programs. How do you reconcile the differences between information from the communities and information from the companies and the labs? Northerners have a vested interest in the environment; trust is important.

A – There are a host of monitoring programs that currently exist that try to bridge this gap – the CNSC independent monitoring program, and Eastern Athabasca Regional Monitoring Program – and these programs can be considered and brought forward for the new mining projects, like the Wheeler River Project. Further to that, we are trying to do things differently, by already having a community monitor attend to our exploration sites (to create transparency) and considering best practices on how we can be transparent when it comes to our data. We don't have anything fully designed at this point but we understand the interest from the communities in this respect.

Q – What do you have to monitor for the air quality? How do you do this?

A – We look at emissions from the site (including dust) and noise. We will have monitoring around the stack, along with noise monitoring where it makes sense.

Q – We should have a lab in northern Saskatchewan and then maybe we would trust the results.

A – *answer provided by Brent regarding comprehensive testing and standards for labs*

Max Morin: made number of statements with respect to the importance of transparency regarding monitoring data (Cluff Lake, Gunner), importance of the Province involving northerners into the monitoring programs, etc



Q – your monitoring wells in relation to the mining solution and the freeze walls, are they too far away right now? What's your plan for these?

A – The precise locations have not been determined yet; but they will be based on all the testing we've done to date, on what the evidence shows us in relation to how fast water moves, etc.

Comment – bringing together both types of knowledge (western science and Indigenous knowledge) is important.

Q – is this freeze technology used elsewhere? Is it used globally?

A – It is used extensively at Cigar Lake and McArthur River – but in the capacity to freeze the sandstone above and around the ore body in order to safely mine underground. To our knowledge it is not being used globally for the purposes we are using it.

Q – Is the training different for this type of mining?

A – not really. ISR wellfield operators will require the same type of training as process operators; a program which can be undertaken here in SK and even in Meadow Lake.

Q – For the storage of radium precipitates and gypsums, what's the plan for keeping them safe and secure?

A – The plan right now is to take off site the radium precipitates because there is some value to those. They will go to a disposal facility that is licensed to handle them. For the gypsum, the product produced is largely inert, and so they will be permanently disposed of on site. For both these waste streams, they will be on engineered lined pads, with runoff collection for treatment of any runoff, with leak detection.

Comment – there is a strong relationship between the Human Resource Development Agreement and the socioeconomic conditions for the project. We are concerned because all of our people are on the lower end of the jobs for the operations (entry level positions). Sometimes there is an issue with trade unions causing issues for our northerners to advance, and racism on site.

A – we will be actively working with the Government on the negotiation of the surface lease. We are hoping to capitalize on the many generations of northerners who have worked in the uranium mines. We understand the interest of northerners in positions beyond entry level. We have a policy about a respectful workplace and also an Indigenous Peoples' Policy that sets out our commitments toward employment and creating a culture of respect. This past year 8 of the 11 field staff working on our

Feasibility Field Test self-identified as Indigenous. We are very proud of this and didn't have any reported issues in the field with respect to racism.

Comment – Safe work environment means that you should be able to let people speak their language over the radio, educating your team on Truth and Reconciliation, etc.

Comment – Denison should provide the MN-S with capacity for us to do what we need to do in relation to your Project.

Response – Denison has agreed to a Capacity Funding Agreement with the MN-S; it fully funds the MN-S to do a Metis Knowledge Study (as requested) and associated items with that Study.



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## Project Introduction: Location

### The Wheeler River Project is located:

- In northern Saskatchewan, Canada.
- Along the eastern edge of the Athabasca Basin.
- 4 km west of Highway 914.
- 35 kilometers northeast of the Key Lake and Key Lake controlled access point
- 35 kilometers southwest of the McArthur River.



## Project Introduction: Schedule of Activities

### Construction:

- Site preparation and earthworks, freeze hole drilling and ground freezing, ISR wellfield drilling, construction of processing plant, and development of other Project components including camp, ponds, pads, access road, and airstrip.

### Operation:

- Operation of the ISR mine, operation of the processing plant and production of uranium concentrate ( $U_3O_8$ ), water withdrawal, treated effluent release, waste management, and maintenance activities

### Decommissioning:

- Physical decommissioning activities include 1) mining area remediation, 2) asset removal, and 3) decontamination, demolition, and disposal. Physical decommissioning activities are followed by reclamation.

### Post-Decommissioning:

- Environmental monitoring to physical, chemical, and biological monitoring of the site will be conducted to confirm that the site is chemically and physically stable.



## Project Introduction: Site Layout



## Project Technology: In Situ Recovery and Wellfield Remediation

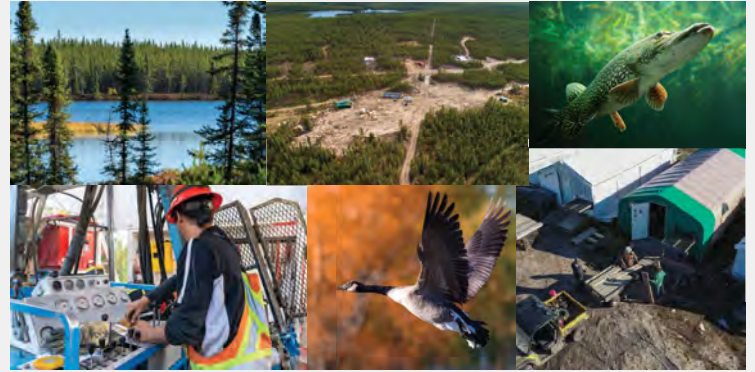






## The Wheeler River Project: Project Video

Questions & Discussion



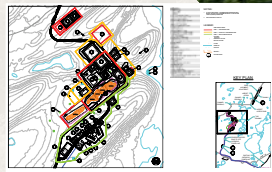
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# Wheeler River Project Overview

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 Nuhené.

Environmental Protection	Resource Use	Infrastructure	Community Development
• Environmental Protection: The project is designed to minimize environmental impacts and ensure the protection of the environment. This includes measures to protect water resources, wildlife, and the environment.	• Resource Use: The project is designed to maximize the use of resources and minimize waste. This includes measures to reduce energy consumption, water use, and waste generation.	• Infrastructure: The project is designed to build and maintain infrastructure that is safe, reliable, and efficient. This includes measures to improve road conditions, water supply, and waste management.	• Community Development: The project is designed to support the development of the community and improve the quality of life for residents. This includes measures to create jobs, improve housing, and provide social services.



## 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 ferrous 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

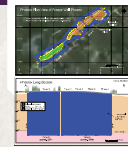
## ISR Process Overview



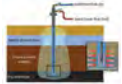
## Ground Freezing - Freeze Wall

- 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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Information provided as of May, 2022

# 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

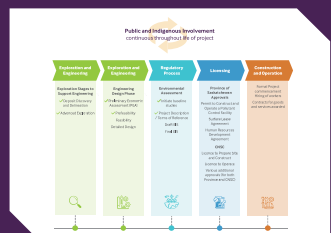
- Understand and evaluate potential environmental impacts of a project before any irreversible decisions are taken that may lead to negative effects on the environment, natural resources, or public health and safety
- Grant regulatory permits or licences
- Review and approve Environmental Impact Statement (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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Information provided as of May, 2022

# 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,
- Kinepiik Métis Local #9,
- Pinehouse Lake,
- Beaver,
- Ile à la Crosse,
- Patawask, and
- The seven Athabasca Communities represented by the Yá'thi Néné 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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Information provided as of May, 2022

# 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

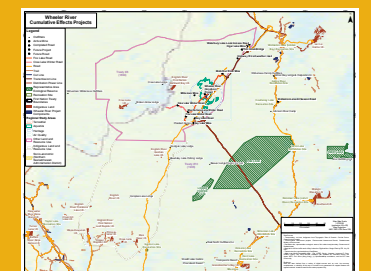
A Cumulative Effects Assessment (CEA) is completed to ensure that the incremental effects from multiple activities in an area (environment, human health, land use, etc.) are considered together. Project activities can interact with Valued Components; when interactions cause Valued Components' conditions 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 select bird species—loss of habitat and mortality vehicle-wildlife collisions expected during construction and operation
- Long term—wasteful 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 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)
- Missis Naton - Saskatchewan
- A La Bale Mills Local 31 (Weila Cross)
- Siponik Mills Local 87 (Bewaul)
- Patawaka Mills Local 82 (Patawaka)
- Northern Hamlet of Patawaka
- Northern Village of Patawaka
- Northern Village of Kila Cross
- Northern Village of Beauval

Other communities, organizations and groups of interest:

- Lac la Ponge Indian Band
- Black Narrows Dene Nation
- Buffalo River Dene Nation
- Hatchet Lake First Nation
- Black Lake First Nation
- Ford du Lac First Nation
- Maris Nation - Saskatchewan
- Yat'ni Nene 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 effluent 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:

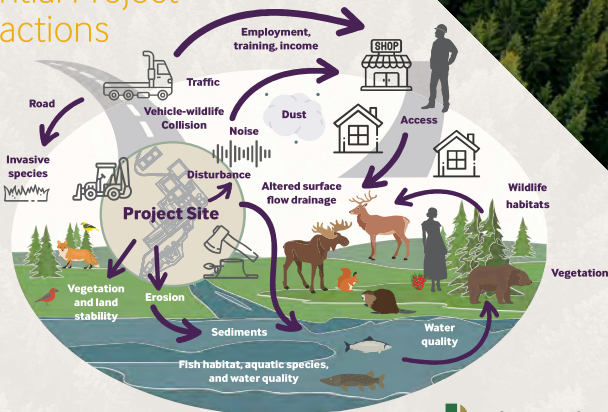
- Entered into an Exploration Agreement with English River First Nation
- Metis Nation Saskatchewan Region 3 South Bay Gathering
- Kawawakik Group and their market garden initiative
- Pinehouse Lake hockey tournament
- Improvements to the English River First Nation Culture Camp at the Mawbey Reserve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

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## Wheeler River Potential Project Interactions

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# The Wheeler River Project

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# Wheeler River Project

## Project Overview

- Eastern Athabasca Basin
- 35km northeast of Key Lake Mill
- 35km southwest of McArthur River Mine
- Within the boundaries of Treaty 10, the traditional territory of English River First Nation, in the homeland of the Métis, within Nuhenéné.
- The purpose is to construct, operate, and decommission an ISR uranium mine and processing plant.



# Wheeler River Project

<b>Location</b>	Northern Saskatchewan, Canada.	
<b>Project Components and Activities:</b>	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.
<b>Inputs</b>	freshwater, chemicals (for mining, uranium processing, treating water), electricity, and fuel.	
<b>Outputs</b>	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.	
<b>Product</b>	U3O8 or yellowcake. The product Denison sells is ultimately used as fuel in nuclear power plants, supporting global efforts to reduce GHG emissions.	
<b>Employment</b>	Approximately 300 workers during Construction and 180 during Operation. The Project will be operated as a fly-in-fly-out operation.	
<b>Project Duration:</b>	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.	

# Wheeler River Project

## Schedule of Activities

	Construction (Year 1 to 3)	Operation (Year 3 to 18)	Decommissioning (Year 18 to 23)	Post-Decommissioning (Year 23 to 38)
Key Project Components	Develop access roads and air strip		Facility removal	Active environmental monitoring of vegetation growth; monitoring of surface water and groundwater quality; monitoring of wildlife site
	Site preparation and earthworks			
	ISR wellfield drilling	Operation of the ISR wellfield ISR wellfield drilling	Process water treatment and release Mining horizon remediation	
	Freeze hole drilling and ground freezing	Freeze hole drilling and ground freezing	Thawing of freeze wall	
	Development of surface infrastructure (camp, operations centre, plants, ponds, pads and support facilities)	Operation of processing plant and production of uranium concentrate	Decontamination of surface facilities, injection, recovery and monitoring wells Facility removal	
		Water withdrawal from groundwater or surface water body		
		Treated effluent release to surface water body	Site water management, treatment and release	
		Waste management		
	Active environmental monitoring of vegetation growth; monitoring of surface water and groundwater quality; monitoring of wildlife site			



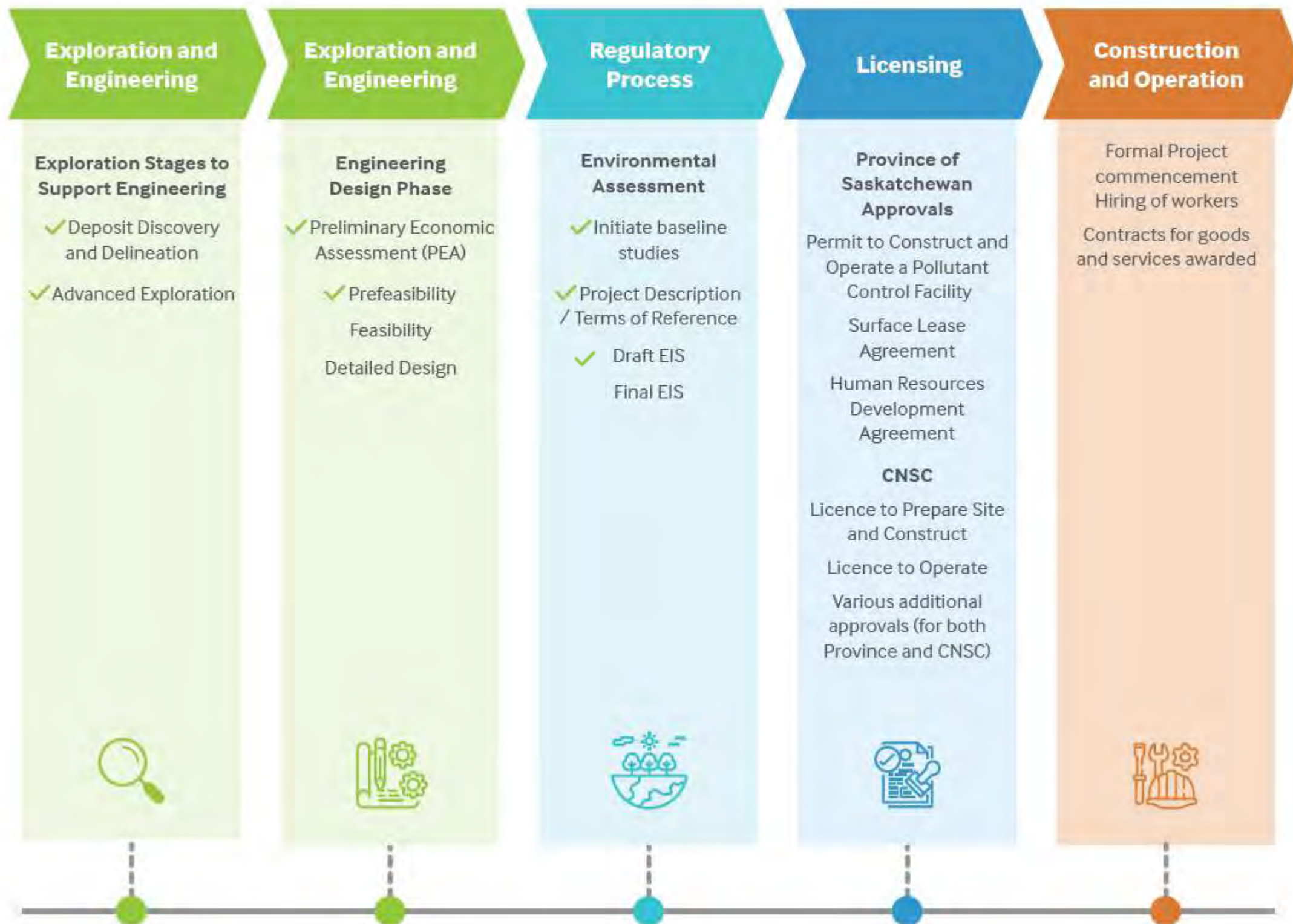
# Wheeler River Project





# Wheeler River Project

## Regulatory Process



# Questions

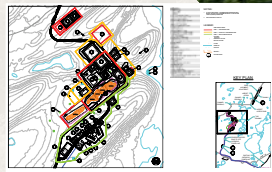




# Wheeler River Project Overview

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 Nuhené.

Environmental Protection	Resource Protection	Infrastructure Protection	Resource Protection
• Environmental Protection	• Resource Protection	• Infrastructure Protection	• Resource Protection
• Environmental Protection	• Resource Protection	• Infrastructure Protection	• Resource Protection
• Environmental Protection	• Resource Protection	• Infrastructure Protection	• Resource Protection
• Environmental Protection	• Resource Protection	• Infrastructure Protection	• Resource Protection



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## 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

# 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

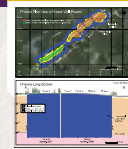
## ISR Process Overview



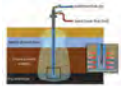
## Ground Freezing - Freeze Wall

- 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

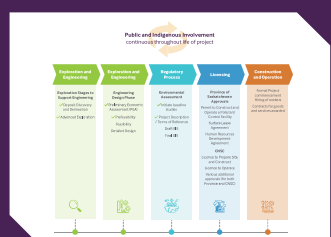
- Understand and evaluate potential environmental impacts of a project before any irreversible decisions are taken that may lead to negative effects on the environment, natural resources, or public health and safety
- Grant regulatory permits or licences
- Review and approve Environmental Impact Statement (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 viewpoint 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,
- Patawask, and
- The seven Athabasca Communities represented by the Yá'thi Néné 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
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# Wheeler River Cumulative Effects Assessment

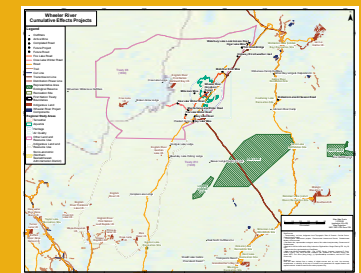
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- Completed for each of the selected Valued Components.
- Uses established assessment methods.
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- Baseline conditions of the Valued Components reflect the effects from past and present projects and activities.
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- 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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Information provided as of May, 2022

## 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, raising, 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 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)
- Missis Naton - 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 Patawaka
- Northern Village of La La Cross
- 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
- Mele Nation - Saskatchewan
- Yat'yé Néné 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

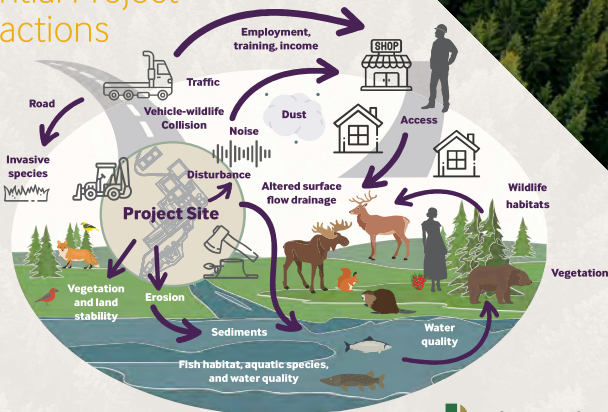
Here are some examples of Denison's support in 2021:

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

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## Wheeler River Potential Project Interactions

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# The Wheeler River Project

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# Wheeler River Project

## Project Overview

- Eastern Athabasca Basin
- 35km northeast of Key Lake Mill
- 35km southwest of McArthur River Mine
- Within the boundaries of Treaty 10, the traditional territory of English River First Nation, in the homeland of the Métis, within Nuhenéné.
- The purpose is to construct, operate, and decommission an ISR uranium mine and processing plant.



# Wheeler River Project

<b>Location</b>	Northern Saskatchewan, Canada.	
<b>Project Components and Activities:</b>	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.
<b>Inputs</b>	freshwater, chemicals (for mining, uranium processing, treating water), electricity, and fuel.	
<b>Outputs</b>	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.	
<b>Product</b>	U3O8 or yellowcake. The product Denison sells is ultimately used as fuel in nuclear power plants, supporting global efforts to reduce GHG emissions.	
<b>Employment</b>	Approximately 300 workers during Construction and 180 during Operation. The Project will be operated as a fly-in-fly-out operation.	
<b>Project Duration:</b>	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.	



# Wheeler River Project

## Schedule of Activities

	Construction (Year 1 to 3)	Operation (Year 3 to 18)	Decommissioning (Year 18 to 23)	Post-Decommissioning (Year 23 to 38)
Key Project Components	Develop access roads and air strip		Facility removal	Active environmental monitoring of vegetation growth; monitoring of surface water and groundwater quality; monitoring of wildlife site
	Site preparation and earthworks			
	ISR wellfield drilling	Operation of the ISR wellfield ISR wellfield drilling	Process water treatment and release Mining horizon remediation	
	Freeze hole drilling and ground freezing	Freeze hole drilling and ground freezing	Thawing of freeze wall	
	Development of surface infrastructure (camp, operations centre, plants, ponds, pads and support facilities)	Operation of processing plant and production of uranium concentrate	Decontamination of surface facilities, injection, recovery and monitoring wells Facility removal	
		Water withdrawal from groundwater or surface water body		
		Treated effluent release to surface water body	Site water management, treatment and release	
		Waste management		
	Active environmental monitoring of vegetation growth; monitoring of surface water and groundwater quality; monitoring of wildlife site			



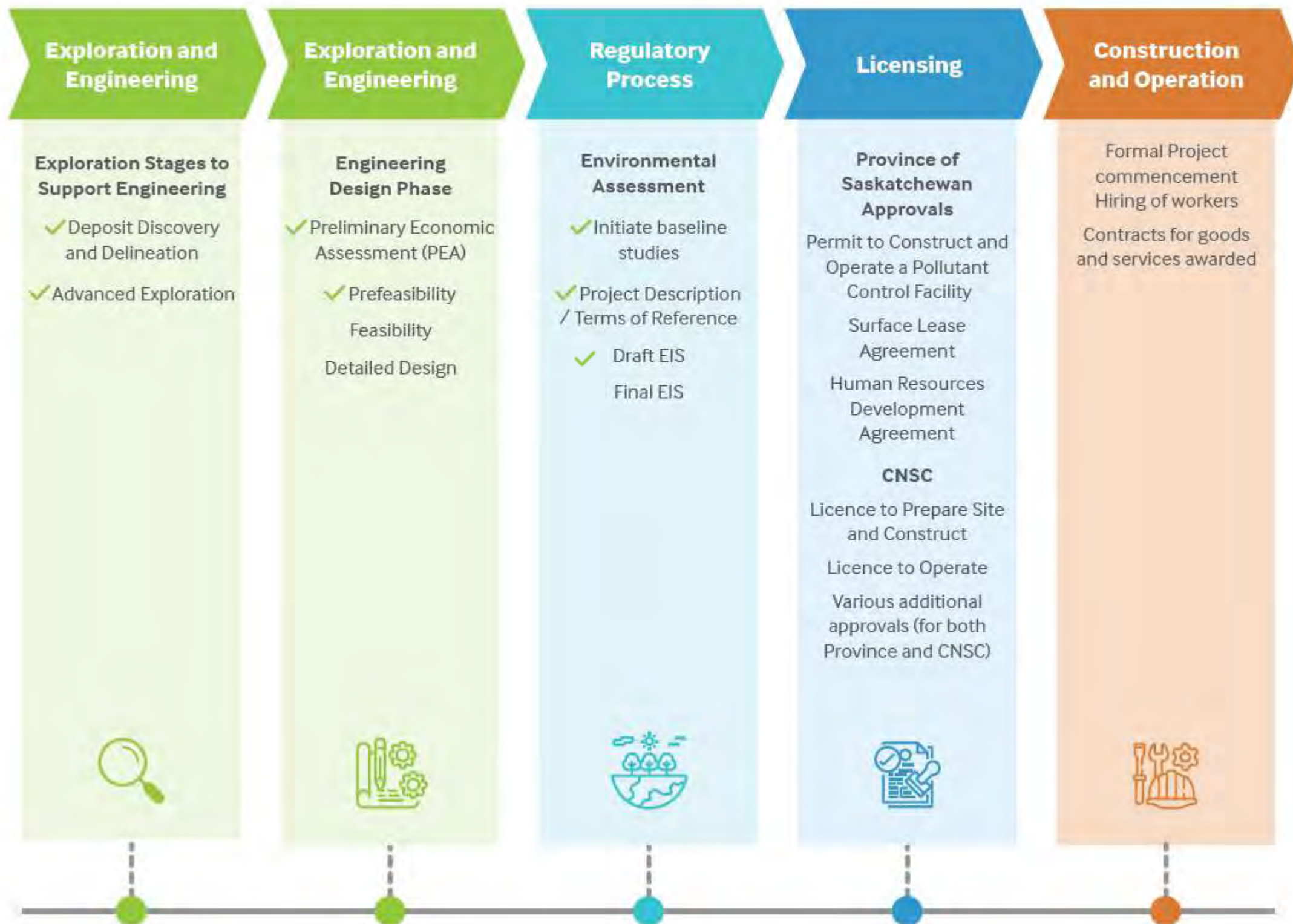
# Wheeler River Project





# Wheeler River Project

## Regulatory Process





# Questions







## 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, Waterbirds, 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, raising, breeding
- Nesting surveys conducted before clearing to identify and establish measures to protect dens, burrows, lodges, nests, and other habitat
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- 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—wasteful 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 context, 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 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
- Kinship Mine Local 30 (Ponchoal)
- Mistis Nisipi - Saskatchewan
- A La Bale Mine Local 31 (Weila Cross)
- Spotted Horse Local 37 (Beauval)
- Patuxent Mine Local 82 (Patuxent)
- Northern Hamlet of Patuxent
- Northern Village of Patuxent
- Northern Village of Weila Cross
- Northern Village of Beauval

Other communities, organizations and groups of interest:

- Lac la Ponge Indian Band
- Birch Narrows Dene Nation
- Buffalo River Dene Nation
- Hatcher Lake First Nation
- Black Lake First Nation
- Fond du Lac First Nation
- Hatcher Lake Tribal Council
- Yath'Né Land and Resource Office
- Prince Albert Grand Council
- Meadow Lake Tribal Council
- Commercial Trappers
- Commercial Fishers
- Commercial Lodgers
- 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

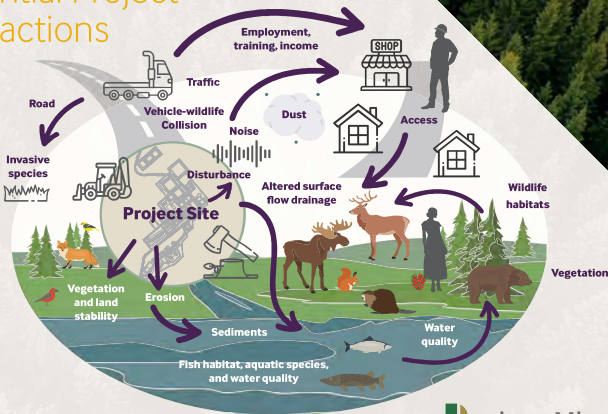
Here are some examples of Denison's support in 2021:

- Entered into an Exploration Agreement with English River First Nation
- Metis Nation Saskatchewan Region 3 South Bay Gathering
- Saskatchewan Group and their market garden initiative
- Pinehouse Lake hockey tournament
- Improvements to the English River First Nation Culture Camp at the Meadow Lake Reserve at 160km
- Many Christmas initiatives in the region, including those in Beauval, Weila Cross, and the Hamlet of Patuxent

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

## Wheeler River Potential Project Interactions

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AND PASSION.



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Information provided as of May, 2022



# The Wheeler River Project

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

 **Denison Mines**



# Wheeler River Project

## Project Overview

- Eastern Athabasca Basin
- 35km northeast of Key Lake Mill
- 35km southwest of McArthur River Mine
- Within the boundaries of Treaty 10, the traditional territory of English River First Nation, in the homeland of the Métis, within Nuhenéné.
- The purpose is to construct, operate, and decommission an ISR uranium mine and processing plant.





# Wheeler River Project

<b>Location</b>	Northern Saskatchewan, Canada.	
<b>Project Components and Activities:</b>	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.
<b>Inputs</b>	freshwater, chemicals (for mining, uranium processing, treating water), electricity, and fuel.	
<b>Outputs</b>	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.	
<b>Product</b>	U3O8 or yellowcake. The product Denison sells is ultimately used as fuel in nuclear power plants, supporting global efforts to reduce GHG emissions.	
<b>Employment</b>	Approximately 300 workers during Construction and 180 during Operation. The Project will be operated as a fly-in-fly-out operation.	
<b>Project Duration:</b>	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.	

# Wheeler River Project

## Schedule of Activities

	Construction (Year 1 to 3)	Operation (Year 3 to 18)	Decommissioning (Year 18 to 23)	Post-Decommissioning (Year 23 to 38)
Key Project Components	Develop access roads and air strip		Facility removal	Active environmental monitoring of vegetation growth; monitoring of surface water and groundwater quality; monitoring of wildlife site
	Site preparation and earthworks			
	ISR wellfield drilling	Operation of the ISR wellfield ISR wellfield drilling	Process water treatment and release Mining horizon remediation	
	Freeze hole drilling and ground freezing	Freeze hole drilling and ground freezing	Thawing of freeze wall	
	Development of surface infrastructure (camp, operations centre, plants, ponds, pads and support facilities)	Operation of processing plant and production of uranium concentrate	Decontamination of surface facilities, injection, recovery and monitoring wells Facility removal	
		Water withdrawal from groundwater or surface water body		
		Treated effluent release to surface water body	Site water management, treatment and release	
		Waste management		
	Active environmental monitoring of vegetation growth; monitoring of surface water and groundwater quality; monitoring of wildlife site			



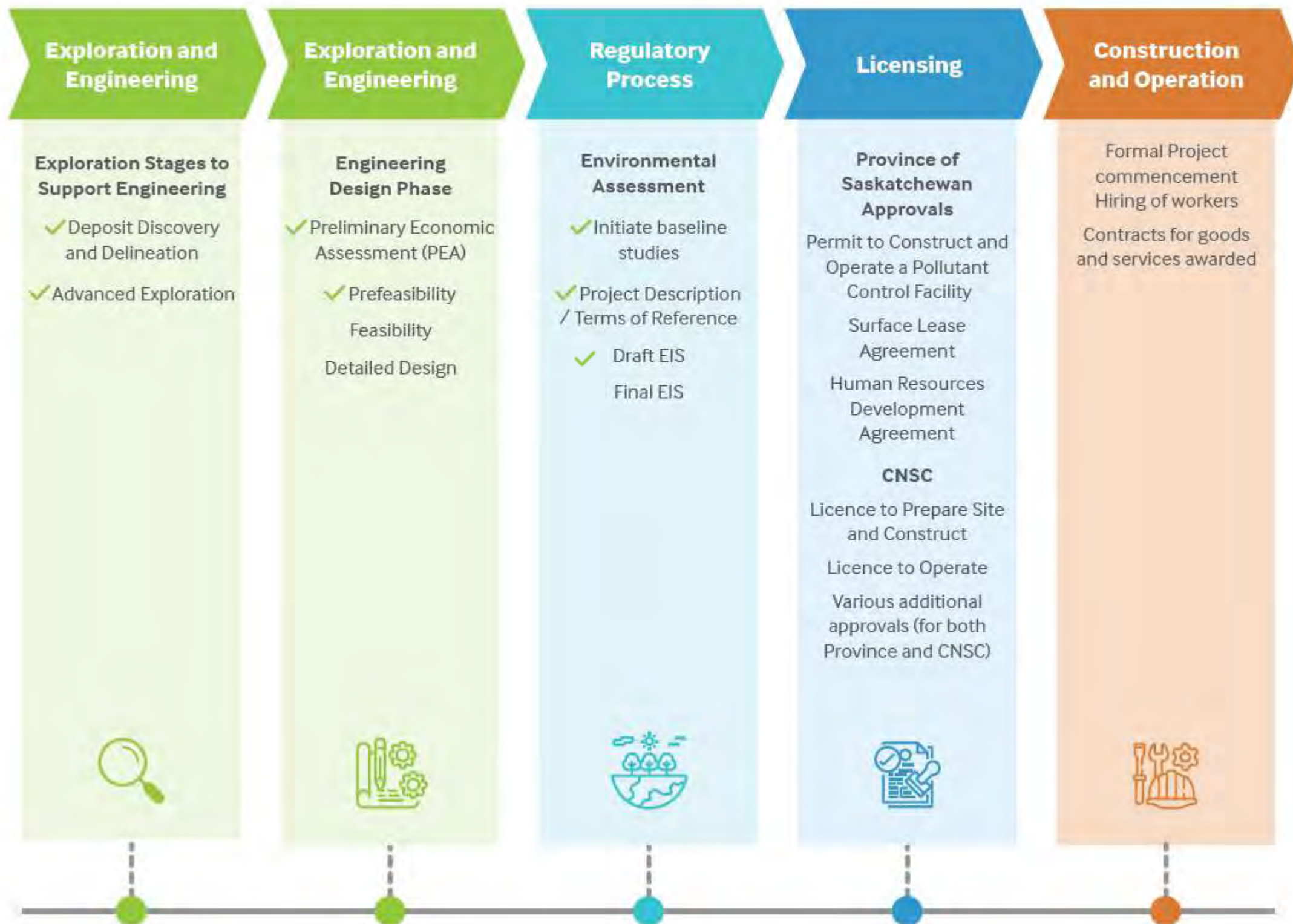
# Wheeler River Project





# Wheeler River Project

## Regulatory Process



# Questions



## Birch Narrows Dene Nation

Wheeler River Project and Environmental Assessment Overview  
February 14, 2023



## Cautionary Statements & References

This presentation and the information contained herein is designed to help you understand management's current views, and may not be appropriate for other purposes. This presentation contains information relating to the uranium market, third party and provincial infrastructure, and the plans and availability thereof, derived from third-party publications and reports which Denison believes are reliable but have not been independently verified by the Company.

Certain information contained in this presentation constitutes "forward-looking information", within the meaning of the United States Private Securities Litigation Reform Act of 1995 and similar Canadian legislation concerning the business, operations and financial performance and condition of Denison. Generally, these forward-looking statements can be identified by the use of forward-looking terminology such as "plans", "expect", "believe", "anticipate", "estimate", "forecast", "intend", "project", "target", "goal", "aim", "objective", "strategy", "vision", "direction", "trend", "outlook", "potential", "opportunity", "challenge", "risk", "uncertainty", or "contingency", or variations of such words and phrases, or state that certain actions, events or results may, "could", "would", "might" or "will be taken", "occur", "be achieved" or "have the potential to". In particular, this presentation contains forward-looking information pertaining to the results of, and estimates, assumptions and projections provided in, the Wheeler PFS and the Waterbury PEA, including future development methods and plans, market prices, costs and capital expenditures, de-risking and project assessment activities, plans and objectives, assumptions regarding Denison's ability to obtain all necessary regulatory approvals to commence development at Wheeler, Denison's percentage interest in its projects and assumed continuity of its agreements with its joint venture partners and other third parties, production and sales, development outlook for McLean Lake, and estimates of uranium industry factors, including physical uranium supply and demand. Statements relating to "mineral resources" are deemed to be forward-looking information, as they involve the implied assessment, based on certain estimates and assumptions that the mineral resources described can be profitably produced in the future.

Forward-looking statements are based on the opinions and estimates of management as of the date such statements are made, and they are subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of Denison to be materially different from those expressed or implied by such forward-looking statements. Denison faces certain risks, including the current and potential impacts of the COVID-19 pandemic, use of mining methods which are novel and untested in the Athabasca basin, the inability to permit or develop its projects as currently planned, the inability to secure sufficient financing to pursue its business objectives, the unpredictability of market prices, events that could materially increase costs, changes in the regulatory environment governing the project lands, and unanticipated claims against title and rights to the project. Denison believes that the expectations reflected in this forward-looking information are reasonable but there can be no assurance that such statements will prove to be accurate and may differ materially from those anticipated in the forward-looking information. For a discussion in respect of risks and other factors that could influence forward-looking events, please refer to the "Risk Factors" in Denison's Annual Information Form dated March 25, 2022 available under its profile at [www.sedar.com](http://www.sedar.com) and its Form 40-F available at [www.sedg.gov/edgar.shtml](http://www.sedg.gov/edgar.shtml). These factors are not, and should not be construed as being, exhaustive.

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Qualified Persons: The disclosure of a scientific or technical nature within this presentation, including the disclosure of mineral resources, mineral reserves, as well as the results of the Wheeler PFS and Waterbury PEA, was reviewed and approved by David Bronkhorst, PEng, and Andy Yackulic, PGeo, each of whom is a Qualified Person in accordance with the requirements of NI 43-101.

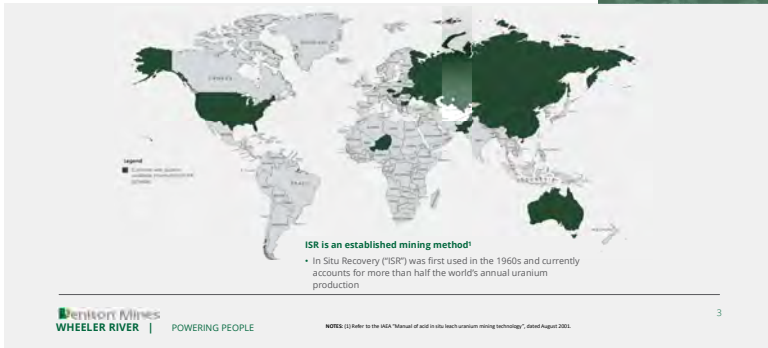
Technical Reports: For further details regarding the Wheeler River project, please refer to the Company's press release dated September 24, 2018 and the technical report titled "Preliminary Feasibility Study for the Wheeler River Uranium Project, Saskatchewan, Canada" with an effective date of September 24, 2018 ("Wheeler PFS"). For further details regarding the Waterbury Lake project, please refer to the Company's press release dated November 17, 2020 and the technical report titled "Preliminary Economic Assessment for the 'The Hidden Tail' (TNT) Deposit, Waterbury Lake Property, Northern Saskatchewan, Canada" with an effective date of October 30, 2020 ("Waterbury PEA"). The PEA is a preliminary analysis of the potential viability of the Project's mineral resources, and should not be considered the same as a Pre-Feasibility or Feasibility Study, as various factors are preliminary in nature. There is no certainty that the results from the PEA will be realized. Mineral resources are not mineral reserves and do not have demonstrated economic viability. Schedules, timelines and grade do not represent an estimate of mineral reserves.

For a description of the data verification, assay procedures and the quality assurance program and quality control measures applied by Denison, please see Denison's Annual Information Form dated March 25, 2022. A copy of the foregoing is available on Denison's website and under its profile on SEDAR at [www.sedar.com](http://www.sedar.com) and on EDGAR at [www.sedg.gov/edgar.shtml](http://www.sedg.gov/edgar.shtml).

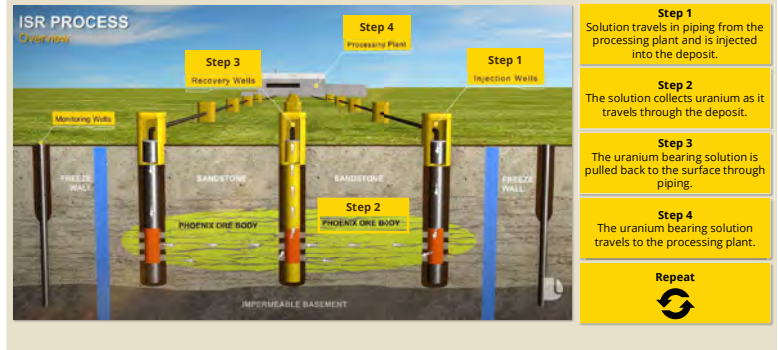


### In Situ Recovery ("ISR") Mining: Introducing a proven mining technique to the Athabasca Basin

### Key Components for the Project



## Project Technology: In Situ Recovery and Wellfield Remediation



## Project Introduction: Location



## Project Technology: Advantages of ISR Mining



### The Wheeler River Project is located:

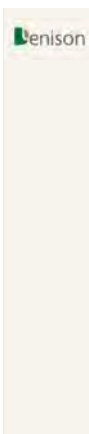
- In northern Saskatchewan, Canada.
- Along the eastern edge of the Athabasca Basin.
- 4 km west of Highway 914.
- 35 kilometers northeast of the Key Lake and Key Lake controlled access point
- 35 kilometers southwest of the McArthur River.



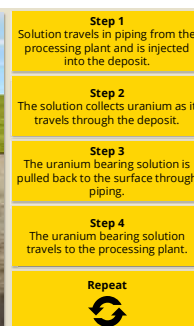
- ✓ Small surface footprint
- ✓ No tailings production
- ✓ Enhanced site reclamation
- ✓ Lower water consumption
- ✓ Lower energy consumption
- ✓ Small volume treated effluent released to surface water bodies
- ✓ Very small volumes of clean waste rock



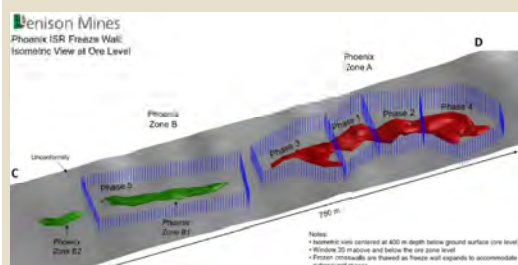
## Project Introduction: Wheeler River Site Layout



## Project Technology: In Situ Recovery and Wellfield Remediation



## Project Technology: Freeze Wall

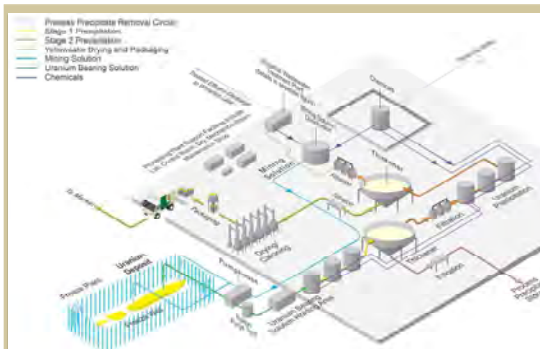


Freezing occurs in stages, starting during construction.

Freezing encloses the deposit, providing secondary containment.

Freezing occurs through the same process used at ice hockey rinks.

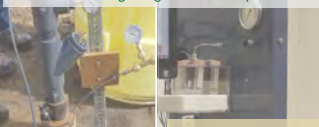
## Project Technology: Processing Facilities



## Project Technology: Video Overview



## Phoenix ISR De-Risking: Combining the world's lowest cost uranium mining method with the world's highest-grade undeveloped uranium deposit



### 2019/2020 ISR Field Tests<sup>(1)</sup>

35 small-diameter test, observation and re-charge wells  
2 large-diameter commercial scale wells  
Pump and injection tests collecting critical hydrogeological data  
Demonstrated "Proof of Concept" for use of ISR

### Specialized Core Leach Testing

Leach testing indicative of in-situ conditions using intact core samples from Phoenix  
Results consistently produced uranium bearing solution head-grade levels significantly higher than grade used in the 2018 PFS<sup>(2)</sup>  
+97% recovery achieved during long-term test<sup>(3)</sup>

### Additional High-Grade uranium discovered at Phoenix<sup>(3)</sup>

22.0% eU<sub>3</sub>O<sub>8</sub> over 8.6 metres in GWR-045  
Located outside of the existing high-grade resource domain for Zone A and Phase 1 of the current mining plan

### 2021 field test of commercial-scale ISR test pattern<sup>(4)</sup>

Achieved commercial-scale flow-rate used in the 2018 PFS  
Completed Athabasca Basin's first "tracer test" showing hydraulic control, breakthrough times consistent with modelling, and ability to carry out "clean-up"



## Fully Permitted In-Situ Recovery Feasibility Field Test (FFT): Multiple catalysts expected from first-of-its-kind test in the Athabasca Basin<sup>(1, 2)</sup>



The Phoenix FFT is expected to validate and inform various feasibility study elements for use of In-Situ Recovery (ISR) mining, including production and remediation profiles, and is planned to occur in three phases commencing in H2 2022:

<b>Leaching</b> Completed ✓ successful injection of acidic solution and recovery of uranium bearing solution using a portion of the test pattern installed at Phoenix in 2021 <sup>(3)</sup> .	<b>Neutralization</b> Completed ✓ successful injection of mild alkaline solution to reverse the leaching process and return test area to protective conditions <sup>(4)</sup> .	<b>Recovered Solution Management</b> Separation of recovered solution into mineralized precipitates (temporarily stored in tanks on surface) and neutralized treated solution (re-injected into sub-surface).
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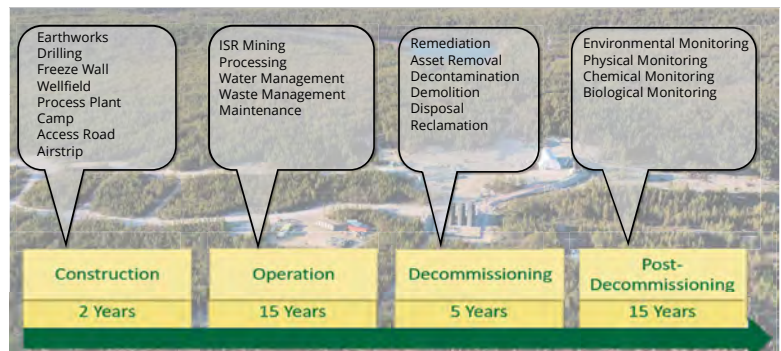


PHOTO:  
Inside FFT overall structure during construction - including view of commercial scale test wells, monitoring wells, and injection solution preparation module (left) and plan map of Phoenix FFT site (right).

NOTES:  
(1) See Denison's news release dated July 15, 2022.  
(2) See Denison's news release dated August 8, 2022.  
(3) See Denison's news release dated October 17, 2022.  
(4) See Denison's news release dated December 12, 2022.

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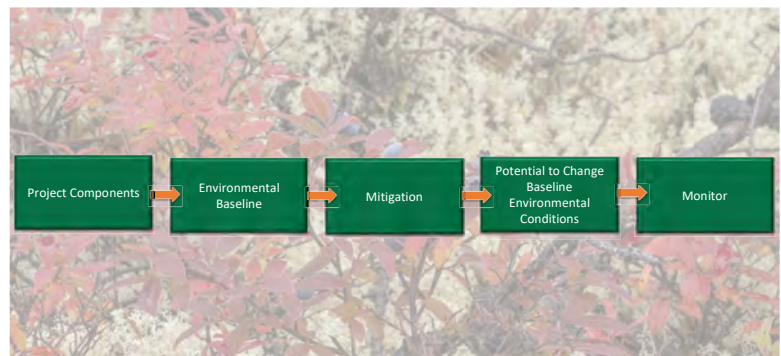
## Project Introduction: Schedule of Activities



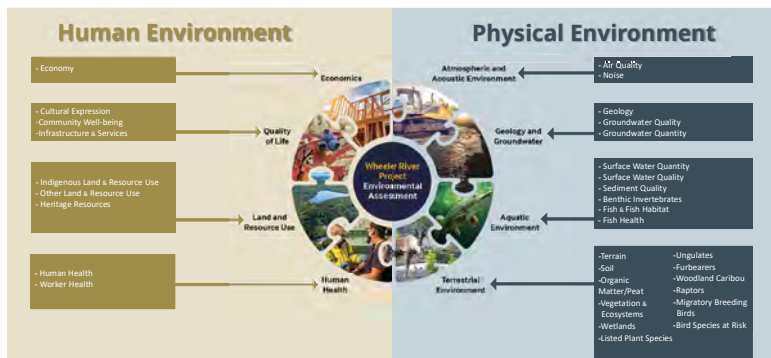
## Mineral Development Process: Draft Environment Impact Statement



## Environmental Assessment: Approach and Methodology Overview



## Environmental Assessment: Project Valued Components





## Questions and Discussion





ROC 906

# Wheeler River Project – Phoenix Deposit In Situ Recovery Uranium Mining

*Peter Ballantyne Cree Nation  
May 16, 2023*

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



**Lenison Mines**  
Uranium Development & Exploration  
The Athabasca Basin, Northern Saskatchewan



# 1. Agenda

## 2. Introductions

## 3. Overview of the Wheeler River Project

## 4. PBCN Areas of Concern with Wheeler River Project

## 5. Next Steps





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## **Qualified Persons**

The disclosure of a scientific or technical nature within this presentation, including the disclosure of mineral resources, mineral reserves, as well as the results of the Wheeler PFS and Waterbury PEA, was reviewed and approved by Chad Sorba, P.Geo, Denison's Director Technical Services, and Andy Yackulic, P.Geo, Denison's Director Exploration, each of whom is a Qualified Person in accordance with the requirements of NI 43-101.

## **Technical Reports**

- For further details regarding the **Wheeler River project**, please refer to the Company's press release dated September 24, 2018 and the technical report titled *"Prefeasibility Study for the Wheeler River Uranium Project, Saskatchewan, Canada"* with an effective date of September 24, 2018 ("Wheeler PFS").
- For further details regarding the **Waterbury Lake project**, please refer to the Company's press release dated November 17, 2020 and the technical report titled *"Preliminary Economic Assessment for the Tthe Heldeth T   (J Zone) Deposit, Waterbury Lake Property, Northern Saskatchewan, Canada"* with an effective date of October 30, 2020 ("Waterbury PEA"). **The PEA is a preliminary analysis of the potential viability of the Project's mineral resources, and should not be considered the same as a Pre-Feasibility or Feasibility Study, as various factors are preliminary in nature. There is no certainty that the results from the PEA will be realized. Mineral resources are not mineral reserves and do not have demonstrated economic viability. Scheduled tonnes and grade do not represent an estimate of mineral reserves.**

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# Diversified Athabasca Basin asset base with superior development leverage

## 95%<sup>(1)</sup>

effective interest in  
Flagship  
Wheeler River project

PFS stage development project<sup>(2)</sup>

Largest undeveloped uranium  
project in the infrastructure rich  
eastern Athabasca Basin

Feasibility Study in progress<sup>(3)</sup>

Draft Environmental Impact  
Statement ("EIS") submitted<sup>(7)</sup>

## 22.5%

interest in  
Strategic McClean Lake  
Uranium Mill

Strategic regional asset

+11% of global uranium  
production

Excess licensed annual capacity

Licensed for expansion of tailings  
management facility ("TMF") <sup>(4)</sup>

## 67.41%

interest in  
Emerging  
Waterbury Lake project

PEA stage development project<sup>(5)</sup>

The Heldeth Tûé ("THT") deposit  
(formerly J Zone) highlights  
potential for future development  
project pipeline

## Participating interests in key development-stage assets operated by uranium "majors"

Includes 22.5% in McClean Lake (Orano), 25.17% in Midwest (Orano), and an effective 15% in Millennium (Cameco) through 50% ownership of JCU<sup>(6)</sup>

## ~300,000

hectares of  
exploration ground

PHOTO:

Aerial view of Denison's 22.5% owned McClean Lake mill facility

NOTES:

(1) Denison increased its effective interest in Wheeler River as part of the acquisition of 50% of JCU (Canada) Exploration Company, Limited. See Denison's news release dated August 3, 2021.

(2) Refer to the Wheeler River Technical Report titled "Pre-feasibility Study Report for the Wheeler River Uranium Project, Saskatchewan, Canada" dated September 24, 2018.

(3) See news release dated September 22, 2021.

(4) See news release dated January 19, 2022.

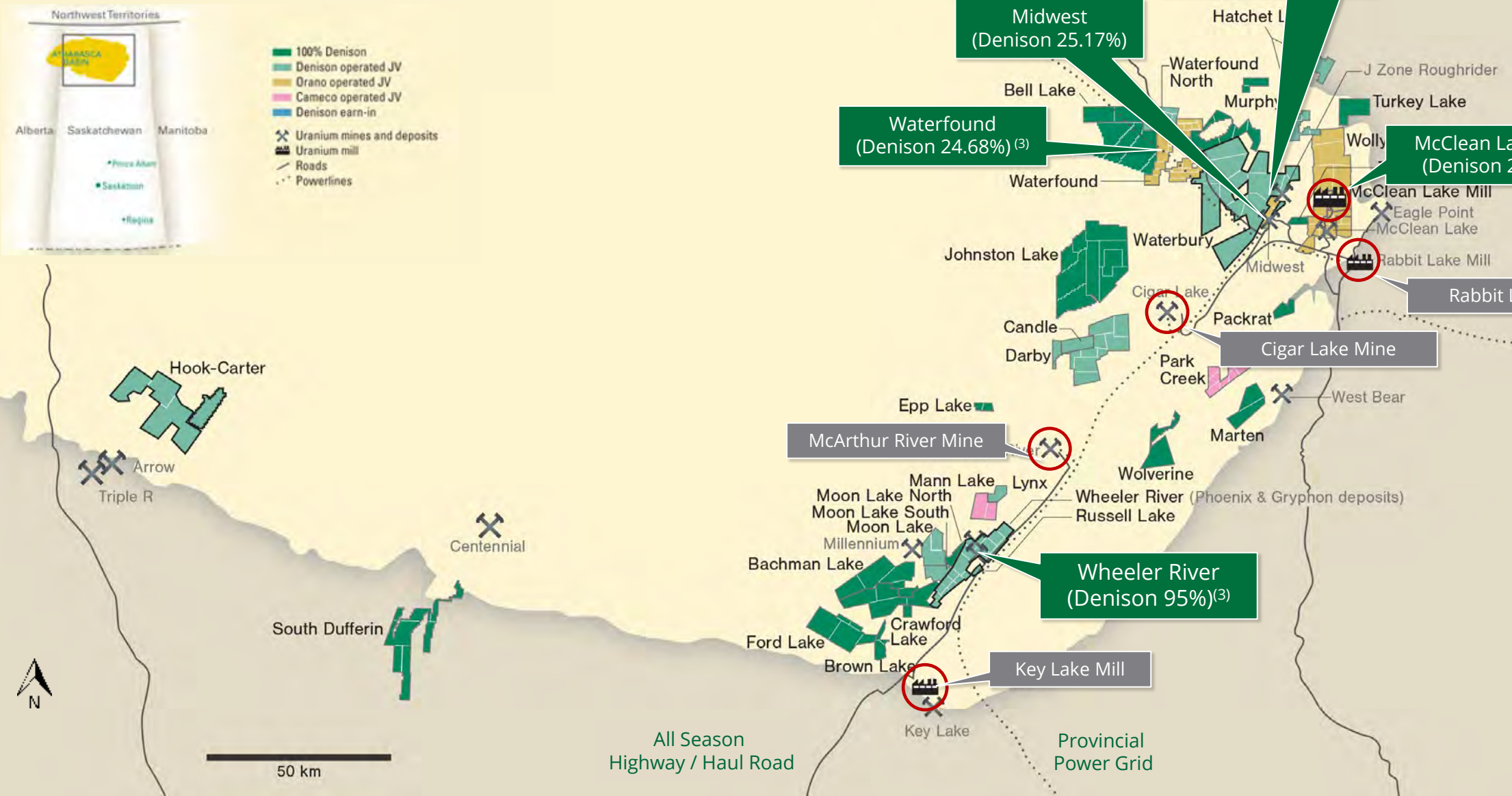
(5) Refer to the Waterbury Lake Technical Report titled "Preliminary Economic Assessment for the Tthe Heldeth Tûé (J Zone) Deposit, Waterbury Lake Property, Northern Saskatchewan, Canada" dated October 30, 2020.

(6) See news release dated August 3, 2021.

(7) See news release dated October 26, 2022.



# Large land position in the infrastructure-rich eastern portion of the Athabasca Basin<sup>(1)(2)</sup>



## NOTES:

(1) Denison direct land position shown as of December 31, 2022.

(2) Excludes interests held only through 50% ownership of JCU – See Denison news release dated August 3, 2021.

(3) Reflects Denison's effective interest, including a portion attributable to Denison's 50% ownership in JCU (Canada) Exploration Company, Limited. See Denison's news release dated August 3, 2021.



# Wheeler River Project

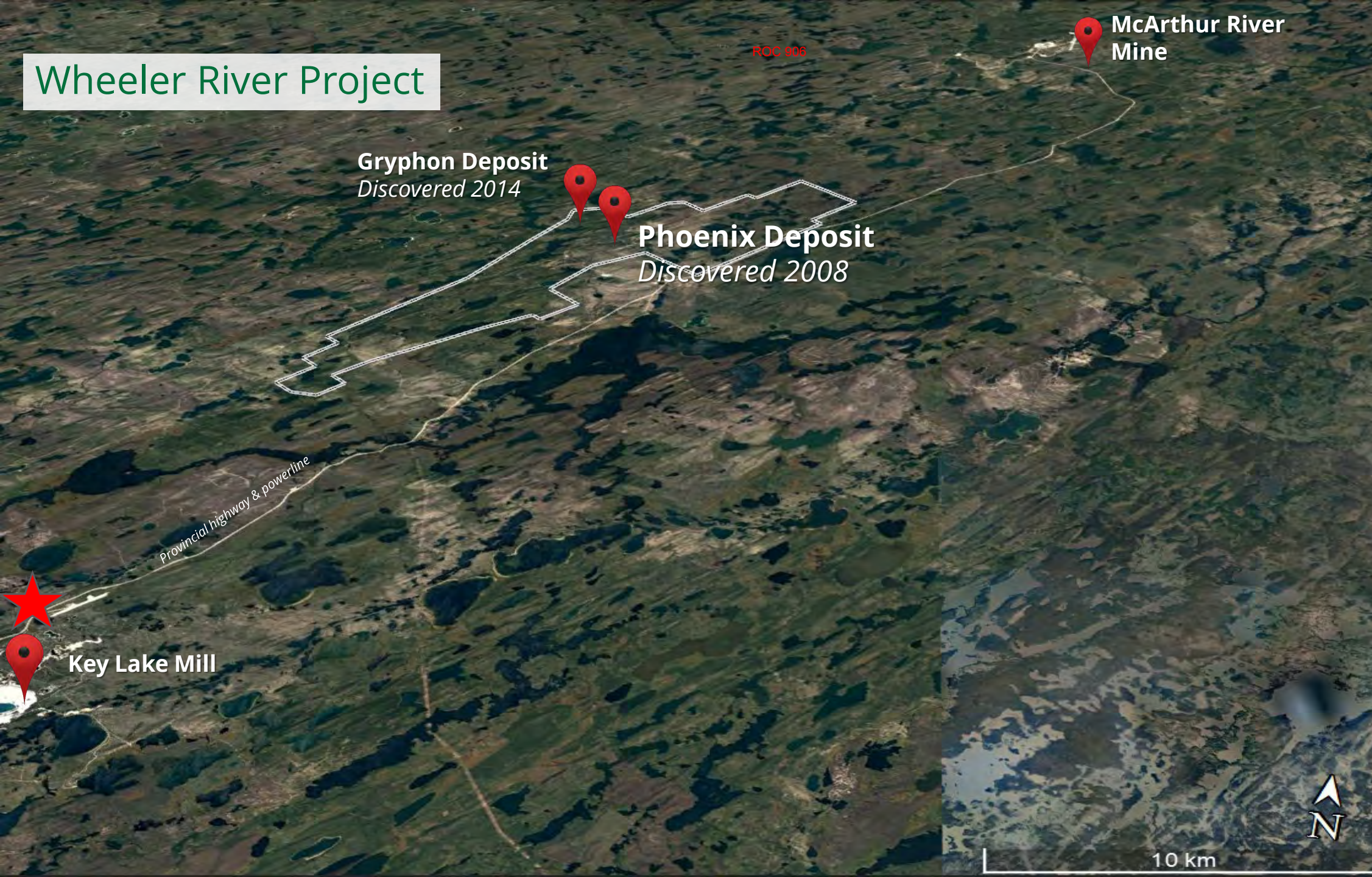


PHOTO:

Aerial view of Denison's 95.0 % owned Wheeler River Project. Highlighting the Phoenix and Gryphon deposits relative to existing infrastructure.



# 95% owned flagship Wheeler River development project<sup>(1)(2)</sup>

## Two

High-grade uranium deposits

**Phoenix** – designed as a low-cost In-Situ Recovery (“ISR”) operation with on-site processing to finished yellow cake ( $U_3O_8$ )

**Gryphon** – contributes additional low-cost production via conventional underground mining with assumed toll milling at 22.5% Denison owned McClean Lake mill

**14-year**  
combined  
Mine Life

**109.4M lbs  $U_3O_8$**   
combined  
Probable Reserves  
(100% basis)

**CAD\$322.5M**  
estimated  
Initial CAPEX  
(100% basis)

**NI 43-101**  
compliant  
Pre-Feasibility Study  
completed in 2018  
considers staged  
development plan<sup>(1)</sup>

**Located within the boundaries of Treaty 10**  
in the traditional territory of English River First Nation, in the homeland of the Métis, and within Nuhenéné

**11,720**  
hectares of prospective  
ground over 19 claims

PHOTO:

Installation of large-diameter commercial scale ISR test wells at Phoenix during 2021.

LINKS:

[Wheeler River Project Video on Vimeo](#)

[Wheeler River Project Page on Denison Website](#)

NOTES:

(1) Refer to the Wheeler River Technical Report titled “Pre-feasibility Study Report for the Wheeler River Uranium Project, Saskatchewan, Canada” dated September 24, 2018.

(2) Denison increased its effective interest in Wheeler River as part of the acquisition of 50% of JCU (Canada) Exploration Company, Limited. See Denison’s news release dated August. 3, 2021.



## Phoenix Deposit:

Combining the world's lowest-cost uranium mining method with one the world's highest-grade undeveloped uranium deposit

ROC 906



PHOTO:

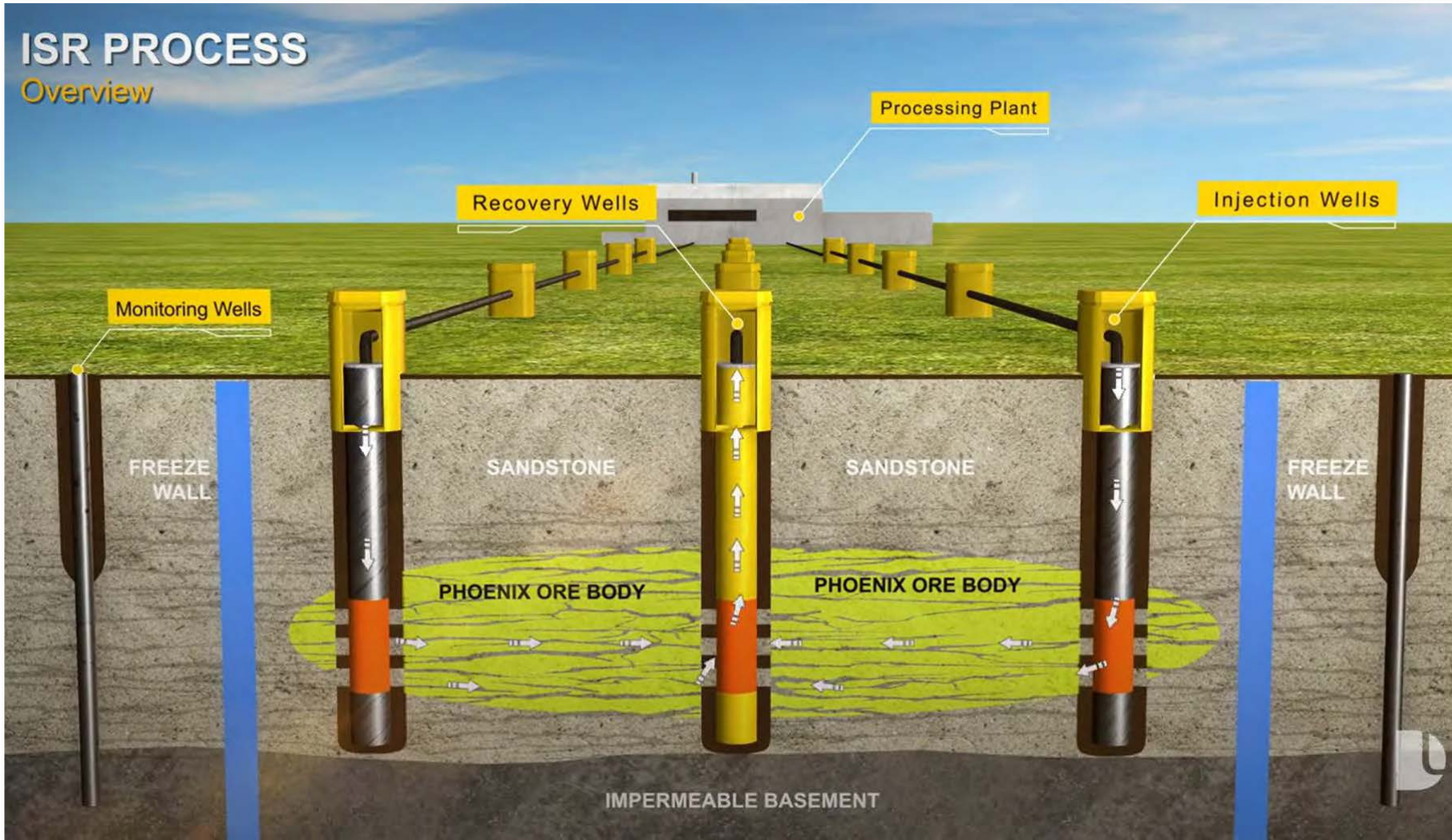
ISR field testing at  
Wheeler River Phoenix  
Deposit, Summer 2019



# Phoenix ISR De-Risking:

## First principles of successful ISR mining in the Athabasca Basin

ROC 906



- 1. Containment:** ability to contain the mining solution injected into the formation
- 2. Permeability:** ability to establish hydraulic connections between injection and recovery wells to move the mining solution throughout the deposit
- 3. Leachability:** ability to complete leaching of the uranium mineralization while it is in the ground (in-situ);
- 4. Processing:** ability to recover a suitable finished product from the uranium bearing solution recovered from the wellfield.

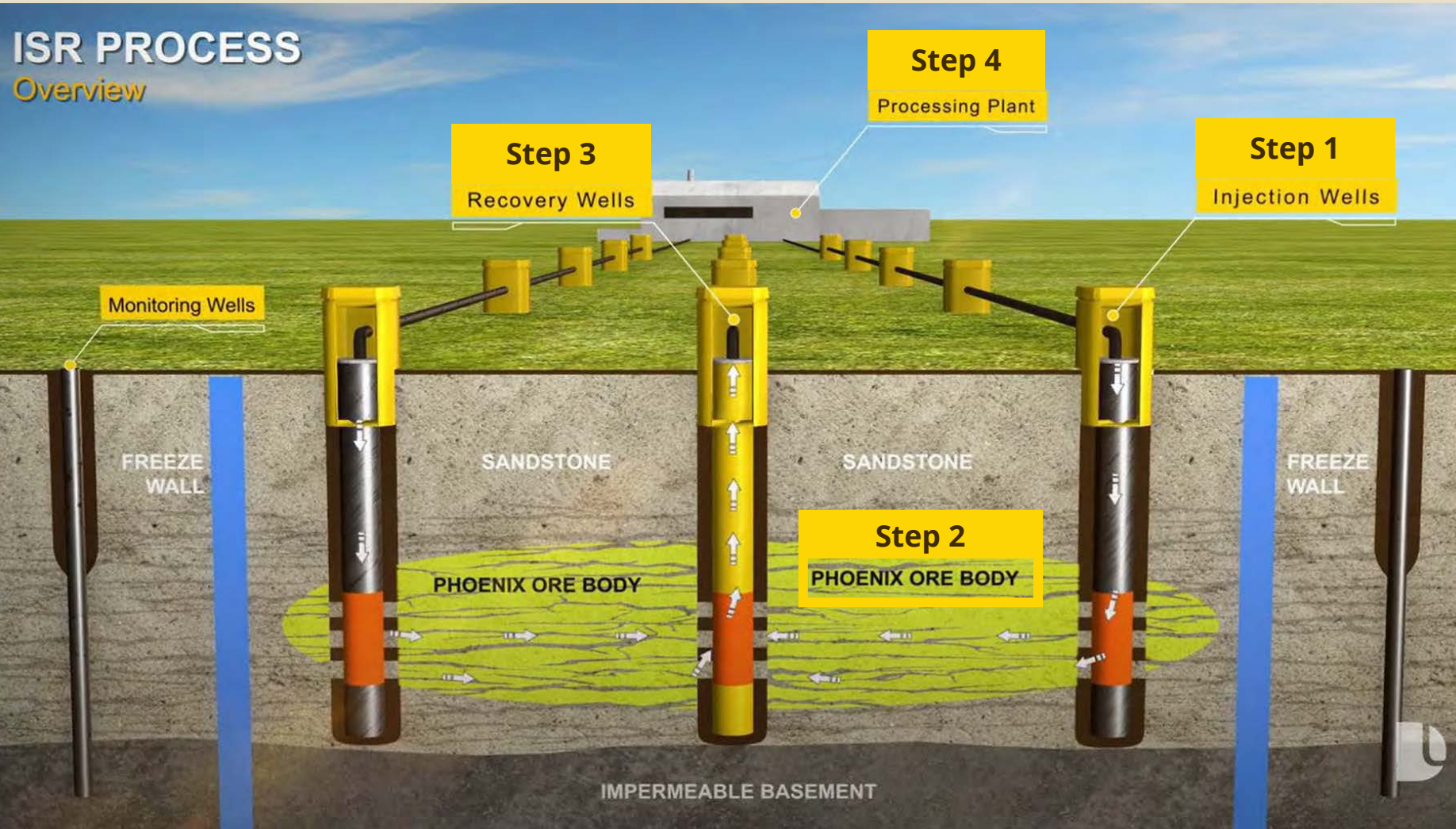


# Project Technology: In Situ Recovery and Wellfield Remediation

ROC 906



## ISR PROCESS Overview



### Step 1

Solution travels in piping from the processing plant and is injected into the deposit.

### Step 2

The solution collects uranium as it travels through the deposit.

### Step 3

The uranium bearing solution is pulled back to the surface through piping.

### Step 4

The uranium bearing solution travels to the processing plant.

Repeat





## Phoenix ISR De-Risking:

Combining the world's lowest cost uranium mining method with one of the world's highest-grade undeveloped uranium deposits

ROC 906

### 2019/2020 ISR Field Tests<sup>(1)</sup>

35 small-diameter test, observation and re-charge wells

2 large-diameter commercial scale wells

Pump and injection tests collecting critical hydrogeological data

Demonstrated "Proof of Concept" for use of ISR

### Specialized Core Leach Testing

Leach testing indicative of in-situ conditions using intact core samples from Phoenix

Results consistently produced uranium bearing solution head-grade levels significantly higher than grade used in the 2018 PFS<sup>(2)</sup>

**+97%** recovery achieved during long-term test<sup>(5)</sup>

### Additional High-Grade uranium discovered at Phoenix<sup>(3)</sup>

**22.0% eU<sub>3</sub>O<sub>8</sub>**  
over 8.6 metres in GWR-045

Located outside of the existing high-grade resource domain for Zone A and Phase 1 of the current mining plan

### 2021 field test of commercial-scale ISR test pattern<sup>(4)</sup>

Achieved commercial-scale flow-rate used in the 2018 PFS

Completed Athabasca Basin's first "tracer test" showing hydraulic control, breakthrough times consistent with modelling, and ability to carry out "clean-up"



PHOTOS (Left to Right):

Small diameter ISR test wells installed at Phoenix in 2019; Specialized core-leach testing apparatus from the Saskatchewan Research Council (SRC); high-grade uranium core and scintillometer; monitoring of commercial scale ISR test wells at Phoenix in 2021.

NOTES:

(1) See Denison's news releases dated December 18, 2019, February 24, 2020, and June 4, 2020.

(2) See Denison's news releases dated February 19, 2020, and August 4, 2021.

(3) See Denison's news release dated July 29, 2021.

(4) See Denison's news release dated October 28, 2021.

(5) See Denison's news release dated December 8, 2022.



# Phoenix ISR De-Risking: 2021 commercial-scale test pattern and tracer test<sup>(1)</sup>

ROC 906



## 5-spot large- diameter commercial scale test pattern

installed in  
expected Phoenix  
mining Phase 1

## Tracer Test

First known  
completed ion  
tracer test for  
ISR mining in  
the history of  
the Athabasca  
Basin

## Permeability Enhancement Tools Tested

On a larger-scale  
than previous  
tests, verifying  
increased  
hydraulic  
connection  
where needed

### *Highlights of highly successful tracer test:*

- ✓ Achieved commercial-scale production flow rates
- ✓ Demonstrated hydraulic control of injected solution
- ✓ Established breakthrough times consistent with hydrogeological modelling
- ✓ Completed 'clean-up' phase consistent with hydrogeological modelling

#### PHOTOS:

ISR test pattern and commercial scale well-head (inset) at Phoenix during field tests / tracer test completed in 2021.

#### LINKS:

[2021 ISR Field Test Video](#)

#### NOTES:

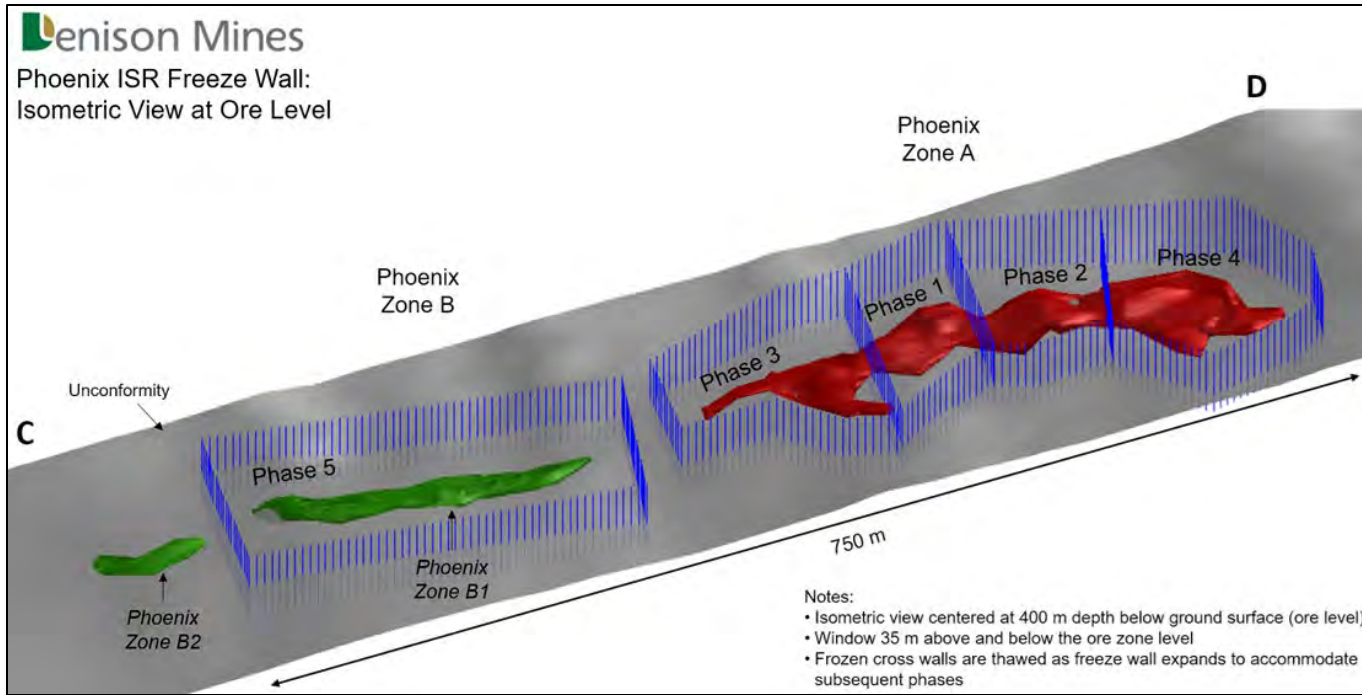
(1) See Denison's news release dated Oct. 28, 2021



# Phoenix ISR Feasibility Study:

ROC 906

Wood PLC selected to lead + author independent Feasibility Study in accordance with NI 43-101<sup>(1)</sup>



**50%  
increase**

to ISR mining  
uranium head-  
grade in PFS<sup>(3)</sup>

**Updated**

Estimate of  
Mineral Resources

including results  
from GWR-045<sup>(4)</sup>  
and GWR-049<sup>(5)</sup>

**Process  
Plant  
Optimization**

Including increase  
in ISR mining  
head-grade

**Mine  
Design  
Optimization**

Including results  
from multiple  
field tests

**Freeze wall design  
shows potential for  
significant  
advantages<sup>(2)</sup>**

Conventional freeze “wall” design  
selected to replace novel freeze  
dome / cap design in 2018 PFS

- Enhanced environmental design – full containment of ISR wellfield to surface
- Lower technical complexity and operational risk – using existing diamond drilling methods
- Expected reduction in initial capital costs with introduction of phased mining approach
- Strengthened project sustainability

**Superior  
Standard of  
Environmental  
Stewardship**

Incorporating  
technical work  
and feedback  
from ongoing EA

**Class 3  
Capital  
Cost Estimate**

AACE  
international  
standard with an  
accuracy of  
-15%/+25%

PHOTO:

Isometric view of planned  
ISR Freeze Wall for  
Phoenix, including  
illustration of phased  
mining approach

NOTES:

(1) See Denison’s news  
release dated September  
22, 2021.

(2) See Denison’s news  
release dated December  
1, 2020.

(3) See Denison’s news  
release dated August 4,  
2021.

(4) See Denison’s news  
release dated July 29,  
2021.

(5) See Denison’s news  
release dated Feb. 16,  
2022.



# Fully Permitted In-Situ Recovery Feasibility Field Test (FFT): Multiple catalysts from first-of-its-kind test in the Athabasca Basin<sup>(1, 2)</sup>



**The Phoenix FFT** was designed to validate and inform various feasibility study elements for use of **In-Situ Recovery (ISR)** mining, including production and remediation profiles, and is planned to occur in three phases. The first phase commenced in **H2'2022**:

## Leaching

Completed ✓  
successful injection of acidic solution and recovery of uranium bearing solution using a portion of the test pattern installed at Phoenix in 2021<sup>(3)</sup>.

## Neutralization

Completed ✓  
successful injection of mild alkaline solution to reverse the leaching process and return test area to protective conditions<sup>(4)</sup>.

## Recovered Solution Management

Separation of recovered solution into mineralized precipitates (temporarily stored in tanks on surface) and neutralized treated solution (re-injected into sub-surface).

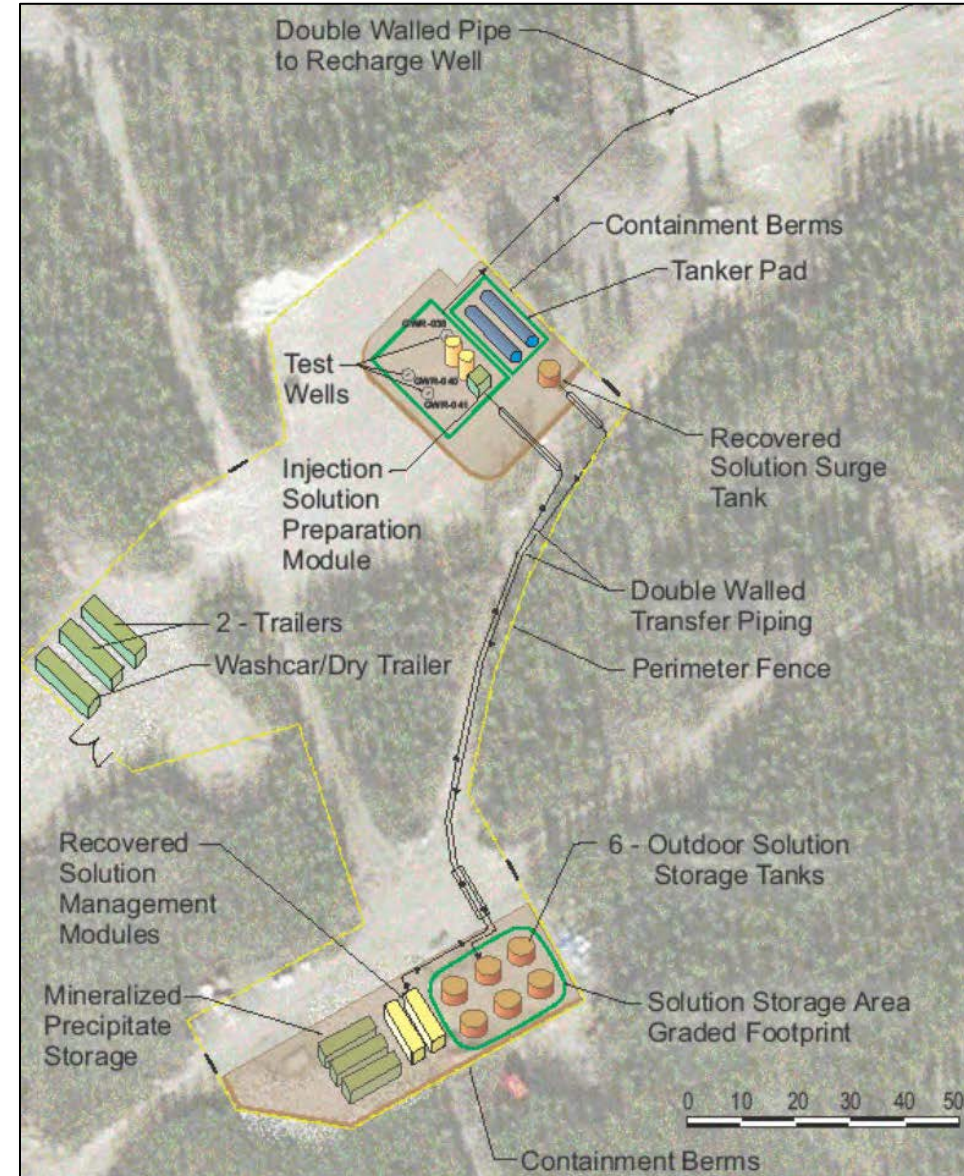


PHOTO:

Inside FFT coverall structure during commissioning – including view of commercial scale test wells, monitoring wells, and injection solution preparation module (left) and plan map of Phoenix FFT site (right).

NOTES:

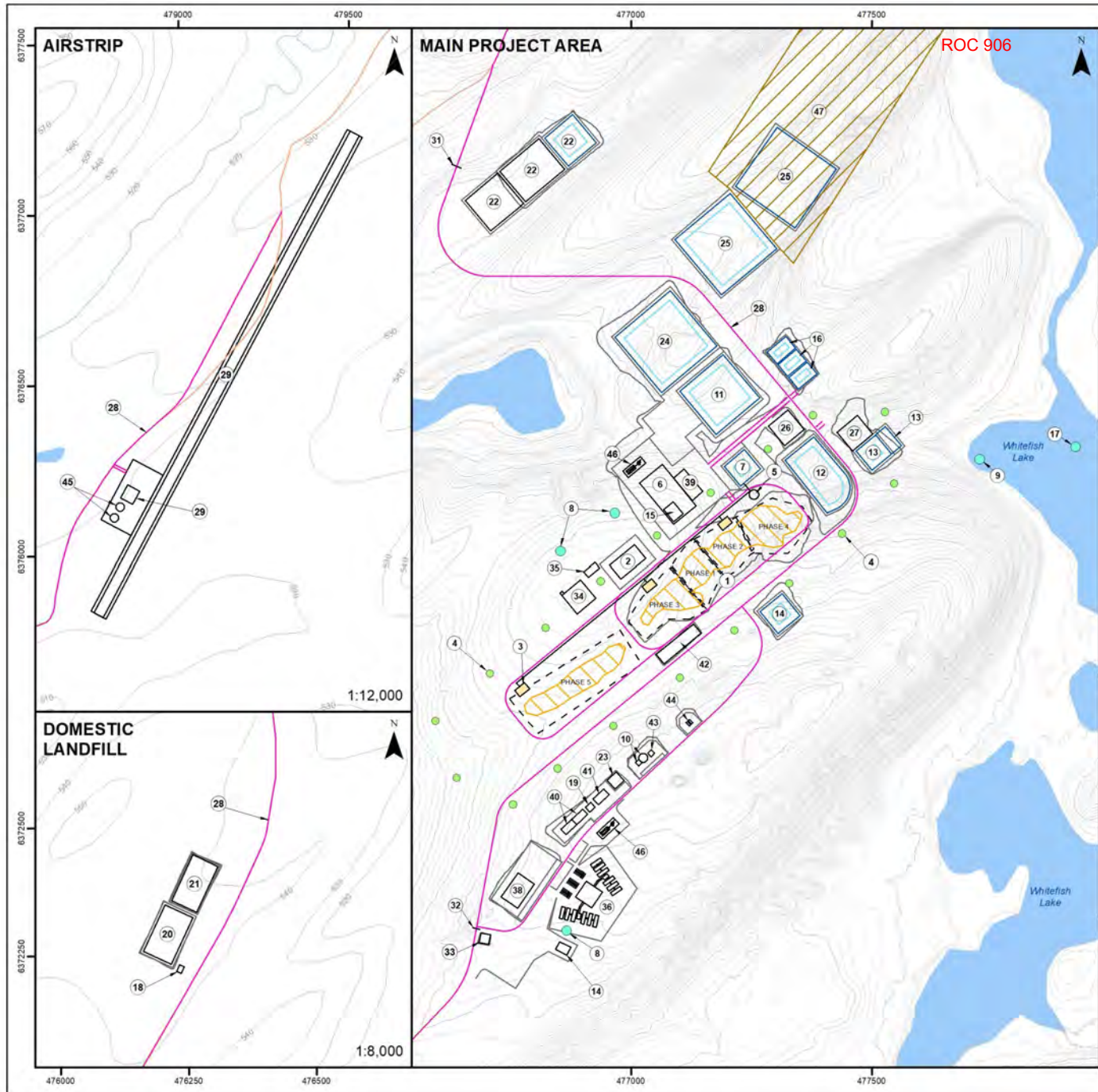
(1) See Denison's news release dated July 12, 2022.

(2) See Denison's news release dated August 8, 2022.

(3) See Denison's news release dated October 17, 2022.

(4) See Denison's news release dated December 12, 2022.





- 1 Mining
- 2 Wellfield
- 3 Freeze plant
- 4 Pumphouse
- 5 Monitoring wells
- 6 Processing
- 7 Radon purge tank
- 8 Processing plant
- 9 Uranium bearing solution holding area
- 10 Water Management
- 11 Freshwater well
- 12 Surface water intake
- 13 Potable water plant and tank
- 14 Process water pond
- 15 Wellfield runoff pond
- 16 Clean waste rock pond
- 17 Domestic wastewater treatment plant and pond
- 18 Industrial wastewater treatment plant
- 19 Effluent monitoring and release ponds
- 20 Effluent discharge point
- 21 Waste Management
- 22 Composting system
- 23 Recycling laydown area
- 24 Domestic landfill with leachate collection pond
- 25 Construction waste laydown area
- 26 Industrial landfill with leachate collection pond and industrial laydown area
- 27 Hazardous waste storage pad
- 28 Process precipitate pond
- 29 Industrial wastewater treatment plant precipitate pond
- 30 Special waste pad
- 31 Clean waste rock pad
- 32 Access and Transportation
- 33 Access roads
- 34 Airstrip and terminal
- 35 Water crossings
- 36 North gate
- 37 South gate
- 38 Gatehouse
- 39 Power and Heating
- 40 Substation
- 41 Diesel generators
- 42 Support Facilities
- 43 Camp
- 44 Exploration camp
- 45 Operations centre
- 46 Maintenance shop
- 47 Covered storage
- 48 Fenced storage
- 49 Wash bay and scanning facility
- 50 Fire water tank
- 51 Fuel storage and dispensing facility
- 52 Jet A fuel storage and dispensing facility
- 53 Propane facility
- 54 Borrow area

### Wheeler River Site Layout Overview

### DENISON MINES

#### Legend

Site Feature	Borrow Area
Pond	Freeze Wall Outline
Access Roads	Phoenix Ore
Road	
Highway 914	
Contour Index	
Contour Intern	
Watercourse	
Waterbody	

The inset map shows the location of the project area within the Wheeler River region. It highlights the Main Project Area, Airstrip, and Domestic Landfill. The map includes labels for Kratchkovsky Lake, Williams Lake, McGowan Lake, and Mardoc Lake. The project area is outlined in red, and the Airstrip is outlined in black. The Domestic Landfill is outlined in black. The map also shows the location of Highway 914 and the Phoenix Ore area.

0 100 200 300 400 500 Meters

Mine Site Map Scale = 1:8,500 (printed on 11 x 17)

Map Projection: NAD 1983 UTM Zone 13N

Data Sources

- Site features from Denison Mines, June 13, 2022
- Inset basemap, National Geographic World Map ESRI Basemap.

Disclaimer

Data has been derived from a variety of digital sources and, as such, the accuracy, completeness, or reliability of this map or its data is not guaranteed. All mapped features are approximate and should be used for discussion purposes only.

Drawn:	Checked:	Date:
C. Tennant	P. Bennett	2022-09-30

Denison Mines

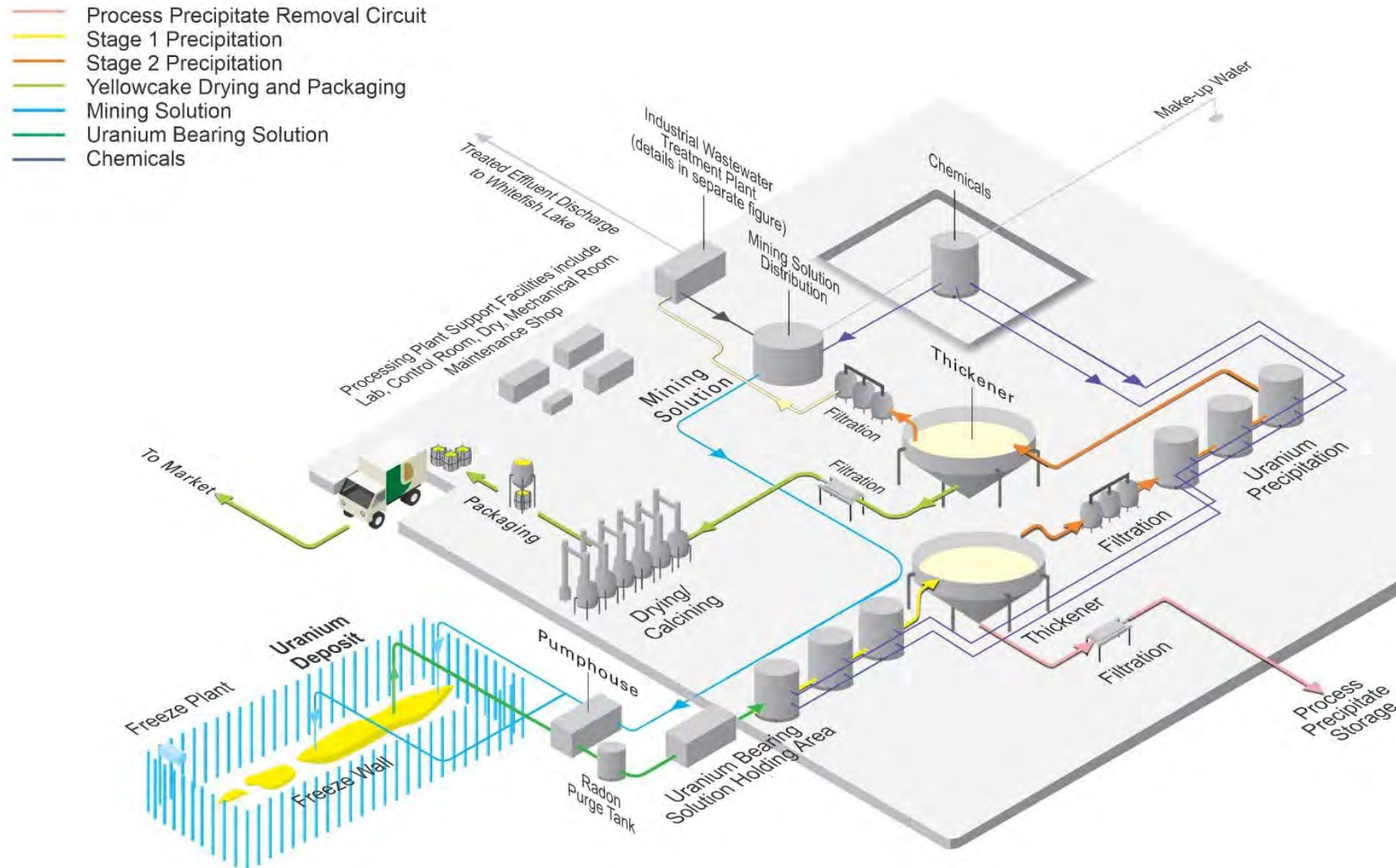
EDI

PHOTO:  
Wheeler River Project  
Phoenix ISR Mine EIS,  
submitted October 2022



# Project Technology: Processing Facilities

ROC 906





# Project Introduction: Schedule of Activities

ROC 906



Earthworks  
Drilling  
Freeze Wall  
Wellfield  
Process Plant  
Camp  
Access Road  
Airstrip

ISR Mining  
Processing  
Water Management  
Waste Management  
Maintenance

Remediation  
Asset Removal  
Decontamination  
Demolition  
Disposal  
Reclamation

Environmental Monitoring  
Physical Monitoring  
Chemical Monitoring  
Biological Monitoring

Construction

2 Years

Operation

15 Years

Decommissioning

5 Years

Post-  
Decommissioning

15 Years





# Project Introduction: Employment and Procurement Considerations

ROC 906



- The Wheeler River Project will have a workforce of 300 in construction, and up to 150 during operation
- The construction expenditures for the Project are \$322.5M
- **However, Denison has a strong corporate focus on employment of Indigenous people and use of Indigenous-owned businesses**
- As various Denison activities advance (including and outside of the Wheeler River Project), Denison has included a number of northern-Saskatchewan Indigenous Owned businesses within the consideration as potential vendors and is always looking to include more





# Project Technology: **Video Overview**

ROC 906





# PBCN Areas of Concern Regarding Wheeler River Project

ROD 908





ROC 906

Next Steps

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



**Lenison Mines**  
Uranium Development & Exploration  
The Athabasca Basin, Northern Saskatchewan

**From:** [Carolanne Inglis-McQuay](#)  
**To:** [Patricia McCunn-Miller](#)  
**Subject:** Follow up to meeting of May 16, 2023 between Denison and PBCN  
**Date:** Wednesday, May 17, 2023 11:10:00 AM  
**Attachments:** [20230516-PRES-DEN\\_PBCN.pdf](#)  
**Importance:** High

---

Good morning Patti –

Thank you for taking the time to meet with myself, Kevin, Stephanie and Rochelle. I appreciated the time taken by Ted Merasty and Constance to virtually attend our introductory meeting.

To being with, I've attached a pdf of the presentation we provided, for your records. There are a few slides we were unable to get to due to time constraints, and also a video in the presentation that we were unable to view. I've included the following link to the video, in case you or your team are interested: <https://www.wheellerriverproject.ca/> (Video right at top of page).

As an outcome of our meeting, I understand the next steps to be for you to send our team a copy of the PBCN Traditional Territory map – we acknowledge that PBCN does not want the map shared, but if specific confidentiality terms are needed, please let us know. I understand you have other materials that are of interest to send to Denison as well; please forward at your convenience.

We also noted that you would like to set up a further meeting to better understand PBCN's interests in the Project area and PBCN's concerns regarding the Project. We are happy to do this, and we both acknowledged that the coming weeks are quite significantly full for the foreseeable future. May I suggest that I reach out at the beginning of June with some proposed meeting dates and we go from there? If not, feel free to suggest an alternative.

Thanks again,  
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)

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**From:** Walter Smith [REDACTED]  
**Sent:** Sunday, June 11, 2023 10:02 AM  
**To:** Carolanne Inglis-McQuay <cinglismcquay@denisonmines.com>  
**Subject:** [\*\*]RE: 20230605\_KML-NVP\_ConcernTables\_Final

Here are my initial thoughts; we should carve out some time to develop a work plan for much of this over the coming months. The responses show our community you will work with us on the development of an agreement, which will evolve to answer most of our concerns. Pinehouse is satisfied with your responses.

The document you shared shows concerns we said are essential and that, as a corporation, you are thinking through those concerns with intention. We as a community are in awe of the Denison engagement and will go ahead and state this publicly when needed.

We need to create a community STEM process that considers culture and language. I will continue to refine the Valued Ecosystem Components (VEC) and EIS (Environmental Impact Statement) and work to actively educate community members on the concerns. Our community understands we are beginning a new relationship and that greater detail in our relationship can only be developed over time as we both work on our specific challenges.

Developing an environmental monitoring process capacity in Pinehouse will be determined as part of the agreement:

Economic benefits will be defined in the agreement.

Cumulative effects can be monitored by developing greater capacity in Pinehouse in partnership with Denison, which will also be part of the agreement.

Viability is a function of market conditions, and Pinehouse believes this project will progress.

Developing an emergency response capacity in Pinehouse could be determined as part of the agreement.

Indigenous Knowledge was incorporated in the submitted documents and will evolve as part of the agreement.

“Questions and clarifications on ISR mining methodology, including freeze wall technology and Project power requirements.” This is a STEM process which we will ask for in the agreement.

Support the vision of local industry supporting infrastructure. Developing industry at the forks will be determined as part of the agreement.

**Key Issues and Concerns from the Northern Village of Pinehouse and Kineepik Métis Local from 2016 until draft EIS Comment period (Q1, 2023)**

Topic	Summary of the Issue, Interest, or Concern	Reference	Denison Response & How Comment was Addressed/Considered in the Draft EIS	Status	Justification of Status	Ongoing Resolution of Concerns (if required)
<b>Monitoring</b>	<p>Interest in information and direct participation in monitoring baseline and effects.</p> <p>Concern that project should have independent monitoring for the Project and that information from this be shared with communities.</p>	ROC 2 ROC 105 ROC 444	<p>An Environmental Protection Program will 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. The program would be developed in a manner that aligns with the ISO 14001 EMS Standard. Aspects of the Environmental Protection Plan will include:</p> <ul style="list-style-type: none"> <li>-Management and Monitoring of Emissions</li> <li>-Liquid Effluent Monitoring Plan</li> <li>- Air Emissions Monitoring Plan</li> <li>- Groundwater Monitoring Plan</li> <li>- Environmental Monitoring Plan</li> <li>- Woodland Caribou Management Plan</li> </ul> <p>As the Indigenous Community of Interest with a residential community most proximal to the Project, Denison has committed to collaborating with Kineepik Metis Local on a community specific monitoring regime, suited to their interests and needs in order to provide transparent information to discourage avoidance of the area and alleviate perceived concerns about potential impacts. As part of this program, Denison and KML will be sharing information in an agreed-upon fashion, about agreed-upon species of interest. Denison expects that important country foods harvested for food and cultural purposes (i.e moose, fish species, etc), surface water quality, and other areas of interest will form part of this monitoring program, including the potential to report on wildlife-vehicle mortality or other such areas of potential concern as they evolve over time.</p> <p>See Section 16 for a summary of monitoring and follow-up programs.</p>	<b>Complete</b> (based on KML acceptance of Response)	<ul style="list-style-type: none"> <li>• Draft table sent by email from Denison on <b>June 7, 2023</b></li> <li>• Confirmation of positive validation by KML received by email on <b>June 10, 2023</b></li> </ul>	N/A General discussions to continue as part of ongoing dialogue
<b>Economics</b>	Concern and interest in economic opportunities associated with Project and education and training to facilitate access and participation by community members.	ROC 62 ROC 105 ROC 388 ROC 444 ROC 620 ROC 623	<p>Denison has estimated a workforce of 300 during the two-year Construction phase and 180 during the Operation phase. Mineral sector positions are typically considered to be higher paying than many other industrial positions. Residents and communities in the LSA (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) will be given first priority for employment, training, and business opportunities, followed by residents and communities in the RSA (Northern Saskatchewan Administrative District).</p> <p>Mitigation and enhancement measures will be implemented by Denison to enhance the positive effects of the Project on employment and training, income, traditional economy, and business opportunities and minimize adverse effects including:</p> <ul style="list-style-type: none"> <li>-A Human Resource Development Plan to initially prioritize Indigenous and non-Indigenous communities in the LSA in terms of employment and training opportunities;</li> <li>-Establishment of a procurement approach through all phases of the Project, focusing on businesses based within the LSA communities, followed by Indigenous and / or businesses in the RSA;</li> </ul>	<b>Complete</b> (based on KML acceptance of Response)	<ul style="list-style-type: none"> <li>• Draft table sent by email from Denison on <b>June 7, 2023</b></li> <li>• Confirmation of positive validation by KML received by email on <b>June 10, 2023</b></li> </ul>	N/A General discussions to continue as part of ongoing dialogue



**Key Issues and Concerns from the Northern Village of Pinehouse and Kineepik Métis Local from 2016 until draft EIS Comment period (Q1, 2023)**

Topic	Summary of the Issue, Interest, or Concern	Reference	Denison Response & How Comment was Addressed/Considered in the Draft EIS	Status	Justification of Status	Ongoing Resolution of Concerns (if required)
			<p>-Negotiation with the Province of Saskatchewan to develop the Project's Surface Lease Agreement and Human Resource Development Agreement.</p> <p>The Agreement negotiated between Denison and KML outlines specific commitments for KML participation in economic opportunities associated with the Project, including in relation to ongoing education and training as deemed appropriate by KML.</p> <p>See Section 13 for a summary on local, provincial, and federal Project benefits and Denison's approach to employment, training, and business participation opportunities for communities.</p> <p>See Section 13 for information regarding employment, employment opportunities, and career growth for community members.</p>			
<b>Economics</b>	Interest with potential contracts and business opportunities for northern Indigenous companies.	ROC 105 ROC 114 ROC 118 ROC 444	<p>The Project will create employment and business opportunities and increase income for workers and businesses in the LSA, RSA, and beyond the RSA during all phases of the Project. Denison has estimated a workforce during the two-year Construction period of 300 people and during the Operation phase 180 people are expected to be employed to operate the ISR wellfield and processing plant, including supporting activities. Mineral sector positions are typically considered to be higher paying than many other industrial positions. Residents and communities in the LSA will be given first priority for employment and training and business opportunities, followed by Indigenous and / or other communities in the RSA.</p> <p>The Agreement negotiated between Denison and KML outlines specific commitments for KML participation in economic opportunities associated with the Project, including business opportunities as deemed appropriate by KML.</p> <p>See Section 13 for a summary of local, provincial, and federal Project benefits and Denison's approach to employment, training, and business participation opportunities for communities.</p>	<b>Complete</b> (based on KML acceptance of Response)	<ul style="list-style-type: none"> <li>Draft table sent by email from Denison on <b>June 7, 2023</b></li> </ul> <p>Confirmation of positive validation by KML received by email on <b>June 10, 2023</b></p>	N/A General discussions to continue as part of ongoing dialogue
<b>Engagement</b>	<p>Interest in implementation of appropriate engagement process activities.</p> <p>Concern was raised over the approach to consultation with others (other communities) and questions raised on whether a Collaborative Agreement was possible during operations.</p>	ROC 106 ROC 114 ROC 118 ROC 135 ROC 388 ROC 444	<p>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> <p>Engagement activities for the Project can and will evolve over time, as information is gathered that is pertinent to Denison's understanding of the Interested Parties and their relationship to, and interest in, the Project. At present, Denison has an</p>	<b>Complete</b> (based on KML acceptance of Response)	<ul style="list-style-type: none"> <li>Draft table sent by email from Denison on <b>June 7, 2023</b></li> </ul> <p>Confirmation of positive validation by KML received by email on <b>June 10, 2023</b></p>	N/A General discussions to continue as part of ongoing dialogue

**Key Issues and Concerns from the Northern Village of Pinehouse and Kineepik Métis Local from 2016 until draft EIS Comment period (Q1, 2023)**

Topic	Summary of the Issue, Interest, or Concern	Reference	Denison Response & How Comment was Addressed/Considered in the Draft EIS	Status	Justification of Status	Ongoing Resolution of Concerns (if required)
			<p>Exploration Agreement with KML and continues to engage with KML and NVP with respect to the Wheeler River Project.</p> <p>The Agreement negotiated between Denison and KML is demonstrative of Denison's responsiveness to the request from KML for such an agreement.</p> <p>See Section 4 for additional information on the consultation process.</p>			
<b>Cumulative Effects</b>	Concern was expressed over cumulative effects in the region.	ROC 105	<p>Denison conducted a cumulative effects assessment, which included the Highway 914 extension project, on categories:</p> <ul style="list-style-type: none"> <li>-The Atmospheric and Acoustic Environment.</li> <li>-Geology and Groundwater.</li> <li>-The Aquatic Environment.</li> <li>-The Terrestrial Environment.</li> <li>-Human Health.</li> <li>-Land and Resource Use.</li> <li>-Quality of Life.</li> <li>-Economics.</li> </ul> <p>Denison respects and understands KML's concern about the cumulative effects in the region, particularly in relation to access to traditional lands and resources in correlation with industrial and mining developments. The residual effects of the Project are expected to interact with the residual effects of other projects and activities in the ILRU RSA, resulting in potential cumulative effects to Indigenous land use activity in the area. This is largely due to the proposed Highway 914 extension project.</p> <p>See Section 16 for a summary of the cumulative effects assessments for each category above.</p>	<b>Complete</b> (based on KML acceptance of Response)	<ul style="list-style-type: none"> <li>Draft table sent by email from Denison on <b>June 7, 2023</b></li> </ul> <p>Confirmation of positive validation by KML received by email on <b>June 10, 2023</b></p>	N/A General discussions to continue as part of ongoing dialogue
<b>Project Description</b>	Interest in information about current market conditions and overall viability of the Project.	ROC 105	<p>Denison has identified that there is current and future market demand for uranium, the primary raw material for nuclear fuel generation. The Project can address gaps in annual global uranium supply and the use of uranium in nuclear power plants can contribute to net-zero goals, and this can be achieved while making a meaningful contribution to the Canadian economy. The Project was considered in relation to technical feasibility, economic feasibility, and land use criteria to determine viability of the Project.</p> <p>See Section 2 for information about Project components and purpose.</p>	<b>Complete</b> (based on KML acceptance of Response)	<ul style="list-style-type: none"> <li>Draft table sent by email from Denison on <b>June 7, 2023</b></li> </ul> <p>Confirmation of positive validation by KML received by email on <b>June 10, 2023</b></p>	N/A General discussions to continue as part of ongoing dialogue
<b>Project Description</b>	Feedback on mining options and technical questions were asked on the different methods of mining.	ROC 2	<p>Project components include: ISR, Drilling, Freeze Wall, Wellfield, Processing, Water Management, Waste Management, Access and Transportation, Power, Support Facilities, Project Area, Project Activities, Ancillary Projects, GHG Emissions, Project Schedule, Project Benefits, Project Design Features, Management System, and Project Alternatives.</p>	<b>Complete</b> (based on KML acceptance of Response)	<ul style="list-style-type: none"> <li>Draft table sent by email from Denison on <b>June 7, 2023</b></li> </ul>	N/A General discussions to continue as part of ongoing dialogue



**Key Issues and Concerns from the Northern Village of Pinehouse and Kineepik Métis Local from 2016 until draft EIS Comment period (Q1, 2023)**

Topic	Summary of the Issue, Interest, or Concern	Reference	Denison Response & How Comment was Addressed/Considered in the Draft EIS	Status	Justification of Status	Ongoing Resolution of Concerns (if required)
	The community provided comments on the different on-site road options.		<p>Through an alternative means assessment, Denison considered options in relation to access and transportation. The access road alignment will follow part of the existing exploration access road, stream crossing structures will use clear span bridges, and worker transportation will be air transport to a) nearby Cameco operations or, b) a new airstrip constructed and operated by Denison.</p> <p>Denison incorporated the feedback provided on road options select the <b>current</b> road alignment for the Project.</p> <p>See Section 2 for information and technical detail pertaining to Project Components and Project alternatives.</p>		Confirmation of positive validation by KML received by email on <b>June 10, 2023</b>	
<b>Project Description</b>	Interest for information about type and how chemicals and other hazardous products would be transported, and whether an emergency response team would be ready to respond.	ROC 444	<p>Denison will establish a Transportation of Dangerous Good Program, intended to provide for the safe transport of goods by conforming to all applicable laws, regulations, company policies, and procedures. The Transportation of Dangerous Goods Program applies to all modes of transport and all locations where Denison assumes care and control of the materials.</p> <p>Denison will establish an Emergency Preparedness and Response Program 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. Emergency Preparedness and Response Program would be developed consistent with guidance provided by CNSC in REGDOC-2.10.1, Nuclear Emergency Preparedness and Response (CNSC 2016).</p> <p>Increased pressure on emergency services is most likely to stem from an accident or malfunction on Highways 914 or 165. The extent to which these changes could affect any given community would depend on the nature of the accident or malfunction. Accidents and malfunctions for the Project were determined to (generally) have a highly unlikely to unlikely probability of occurrence, with an overall risk rating of low to moderate; however, the severity of accidents and malfunctions was determined to be minor to major. If such an event were to occur, local resources may be called upon to provide support, which may result in a call to fire, RCMP, or ambulance services depending on the nature of the event. Denison will provide any necessary training and/or equipment to local first responders to make sure they are sufficiently prepared to deal with an unlikely accident or malfunction.</p> <p>Denison's objective is to utilize existing emergency response teams from other operations prior to drawing on community-based resources. In the unlikely event that this were to occur, and KML resources were drawn upon, the Agreement negotiated between provides the foundation for discussions in respect of such incidents.</p> <p>See Section 2 for information pertaining to the above programs.</p>	<b>Complete</b> (based on KML acceptance of Response)	<ul style="list-style-type: none"> <li>Draft table sent by email from Denison on <b>June 7, 2023</b></li> </ul> <p>Confirmation of positive validation by KML received by email on <b>June 10, 2023</b></p>	N/A General discussions to continue as part of ongoing dialogue
<b>Land and Resource Use</b>	Russell Lake was noted of particular importance for	ROC 2 ROC 620	Denison noted the importance of Russell Lake and considered Russell Lake in the LSA in terms of recreational/commercial fishing.	<b>Complete</b> (based on KML acceptance of Response)	<ul style="list-style-type: none"> <li>Draft table sent by email from Denison</li> </ul>	N/A General discussions to

**Key Issues and Concerns from the Northern Village of Pinehouse and Kineepik Métis Local from 2016 until draft EIS Comment period (Q1, 2023)**

Topic	Summary of the Issue, Interest, or Concern	Reference	Denison Response & How Comment was Addressed/Considered in the Draft EIS	Status	Justification of Status	Ongoing Resolution of Concerns (if required)
	recreational/commercial fishing.		<p>Negligible aquatic habitat loss is predicted in LA-5 (also known as Whitefish Lake) due to the installation of a discharge pipeline and diffuser configuration. The total area of the lake substrate that would be overprinted by the pipeline is expected to be approximately 135 m<sup>2</sup>, which will constitute less than 0.05% of the lake's surface area. No other alteration, disruption, or destruction of aquatic habitat in the aquatic environment LSA is expected. Project-induced changes to the abundance and distribution of fish is, therefore, not expected. The effect, if any, is expected to be undetectable to fishers.</p> <p>The Agreement negotiated between Denison and KML outlines specific commitments for KML participation in environmental monitoring associated with the Project, including the potential for monitoring fish species harvested by and important to, KML.</p> <p>See Section 11 for information on how the Project will interact with land and resources including how potential effects will be mitigated.</p>		<p>on <b>June 7, 2023</b></p> <p>Confirmation of positive validation by KML received by email on <b>June 10, 2023</b></p>	continue as part of ongoing dialogue
<b>Indigenous and Local Knowledge</b>	The community has pre-existing Indigenous Knowledge and will work with Denison on this.	ROC 106	<p>In 2018, KML approached Denison to support a land use mapping initiative in the Project area. The 2018 study builds on existing land use maps, completed in 2011. A verification meeting was held in late 2018 to make sure no geographic data gaps existed and that the results speak for the whole community. In 2022, KML prepared a document to voice their perspectives on Project VCs and to provide a record for EIS development. Based on 12 community engagement sessions and review of the land use maps, KML explained their unique social, cultural, and historical context, expressed a general consensus of support for the Project, and described issues and concerns.</p> <p>See Section 3 for information on IK and LK and how this information was integrated throughout the EIS.</p>	<b>Complete</b> (based on KML acceptance of Response)	<ul style="list-style-type: none"> <li>Draft table sent by email from Denison on <b>June 7, 2023</b></li> </ul> <p>Confirmation of positive validation by KML received by email on <b>June 10, 2023</b></p>	N/A General discussions to continue as part of ongoing dialogue
<b>Project Description</b>	Questions and clarifications on ISR mining methodology, including freeze wall technology and Project power requirements.	ROC 62 ROC 604 ROC 620 ROC 623	<p>Project components include: ISR, Drilling, Freeze Wall, Wellfield, Processing, Water Management, Waste Management, Access and Transportation, Power, Support Facilities, Project Area, Project Activities, Ancillary Projects, GHG Emissions, Project Schedule, Project Benefits, Project Design Features, Management System, and Project Alternatives.</p> <p>See Section 2 for information and technical detail pertaining to Project Components and Project alternatives.</p> <p>Engagement activities for the Project can and will evolve over time, as information is gathered that is pertinent to Denison's understanding of the Interested Parties and their relationship to, and interest in, the Project. At present, Denison has an Exploration Agreement with KML continues to engage with KML and NVP with respect to the Wheeler River Project.</p> <p>See Section 4 for additional information on the consultation process.</p>	<b>Complete</b> (based on KML acceptance of Response)	<ul style="list-style-type: none"> <li>Draft table sent by email from Denison on <b>June 7, 2023</b></li> </ul> <p>Confirmation of positive validation by KML received by email on <b>June 10, 2023</b></p>	N/A General discussions to continue as part of ongoing dialogue



**Key Issues and Concerns from the Northern Village of Pinehouse and Kineepik Métis Local from 2016 until draft EIS Comment period (Q1, 2023)**

Topic	Summary of the Issue, Interest, or Concern	Reference	Denison Response & How Comment was Addressed/Considered in the Draft EIS	Status	Justification of Status	Ongoing Resolution of Concerns (if required)
<b>Economics and Local Capacity Building</b>	Expressed a need for building capacity locally in terms of training and education, emergency response, waste management, and additionally expressed a want of local procurement and industry supporting infrastructure.	Draft EIS Comments	<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.</p> <p>The Agreement negotiated between Denison and KML outlines specific commitments for KML participation in economic opportunities associated with the Project, including commitments for ongoing education and training as deemed appropriate by KML, support to the vision of local industry supporting infrastructure.</p> <p>In terms of building capacity locally for emergency response and waste management, Denison supports KML's vision on these items where it makes sense and is possible. The Agreement provides a framework for future possibilities such as these.</p>	<b>Complete</b> (based on KML acceptance of Response)	<ul style="list-style-type: none"> <li>Draft table sent by email from Denison on <b>June 7, 2023</b></li> </ul> <p>Confirmation of positive validation by KML received by email on <b>June 10, 2023</b></p>	N/A General discussions to continue as part of ongoing dialogue
<b>Access and Transport</b>	Expressed a need for industrial grade improvements between Highway 2 and the Key Lake Gate to support the increase in heavy traffic.	Draft EIS Comments	<p>Highway improvements are not within Denison's jurisdiction and are not considered in the EIS for the Wheeler River Project. However, Denison notes KML's perspective of increased traffic volumes and subsequent desire for highway improvements.</p> <p>On Highway 914 between Key Lake and Pinehouse, Denison anticipated that road users would see an increase between 16% and 40% over the life of the mine. Trucks travelling on this section of highway will increase from 35 to 53 at peak operational times.</p> <p>Denison's vision in respect of this concern is that Denison and KML work together as partners in discussions about highways with the Provincial Government.</p> <p>However, in respect of actions Denison can undertake regarding traffic along the road at times important for the undertaking of cultural activities, Denison commits to:</p> <ol style="list-style-type: none"> <li>1) Assisting KML with the clear identification of the forthcoming culture camp along highway 914 (clear signage)</li> <li>2) Having Project vehicle slow down to 40km/hr from mid-August to mid-October, during the times when KML members may be using the portion of the road near the culture camp. To be specific, this includes 2.5km before the entry into the culture camp, and 2.5km after the entry into the culture camp.</li> </ol> <p>See Section 2, Appendix 2-B for more detail pertaining to traffic volumes.</p>	<b>Complete</b> (based on KML acceptance of Response)	<ul style="list-style-type: none"> <li>Draft table sent by email from Denison on <b>June 7, 2023</b></li> <li>Confirmation of positive validation by KML received by email on <b>June 10, 2023</b></li> </ul>	N/A General discussions to continue as part of ongoing dialogue



20 July 2023

Carolanne Inglis-McQuay  
CSR Manager, Denison Mines  
345 4<sup>th</sup> Ave., S, Saskatoon, SK S7K 1N3

Dear Carolanne,

On behalf of Ya'thi Nene Lands and Resources (YNLR) I would like to thank you and your team for meeting with us this week to begin initial discussions regarding our comments and questions with respect to the Environmental Impact Statement (EIS) for the Wheeler River Uranium Mine Project.

As part of the follow-up to our meeting YNLR would appreciate written responses to the comments and questions that were raised in the intervention. Other than providing a record for EIS tracking purposes, this approach will allow YNLR the time to digest and respond back accordingly. Denison's responses can be in the form of additional information and/or directions to specific areas within the EIS itself. We anticipate that most of our concerns will be addressed rather easily similar to how we identified a number of pathways forward in our recent meeting. However, like most iterative processes, there will likely be issues that require further clarification, discussion, and resolution as we move along our collaborative pathway.

We recognize that the cooperative review of the EIS is only one part of the growing partnership between us and look forward to working with you towards achieving a sustainable mining project.

Sincerely

Bruce Hanbidge, B.Sc [Bio], BSc [Biochem], MA [Ecol]  
Operations Manager  
Ya'thi Néné Land and Resource Office

(P) [REDACTED]

(C) [REDACTED]

(F) [REDACTED]

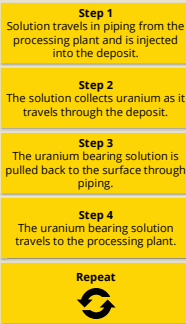
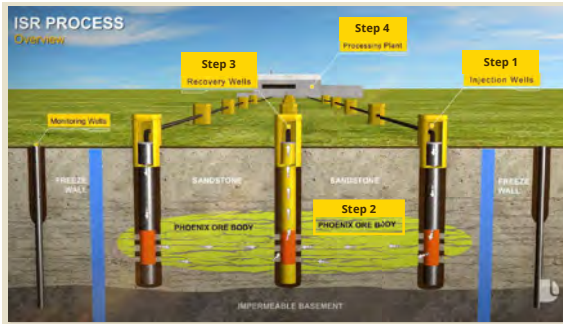
[www.yathinene.ca](http://www.yathinene.ca)

CC: Garratt Schmidt, Executive Director YNLR  
Dana Kellett, Environmental Specialist, YNLR  
Dennis Sherratt, Policy Advisor, YNLR  
Dr. Paul James, Policy Advisor, YNLR

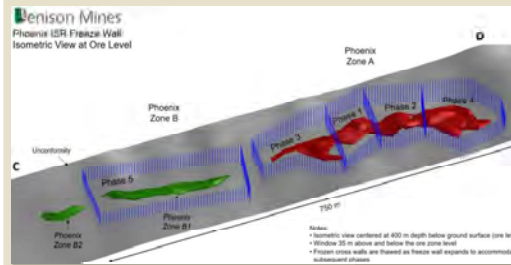




## Project Technology: In Situ Recovery and Wellfield Remediation

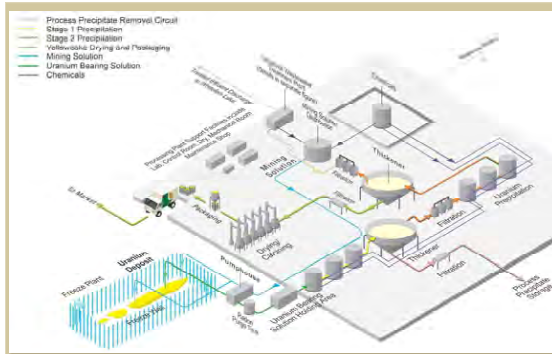


## Project Technology: Freeze Wall



- Freezing occurs in stages, starting during construction.
- Freezing encloses the deposit, providing secondary containment.
- Freezing occurs through the same process used at ice hockey rinks.

## Project Technology: Processing Facilities



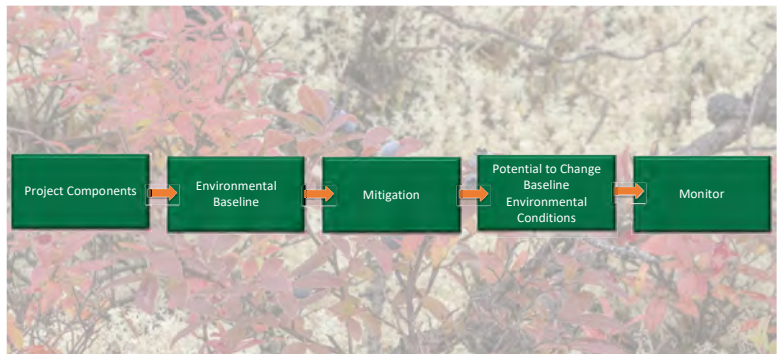
## Project Introduction: Schedule of Activities



## Mineral Development Process: Draft Environment Impact Statement

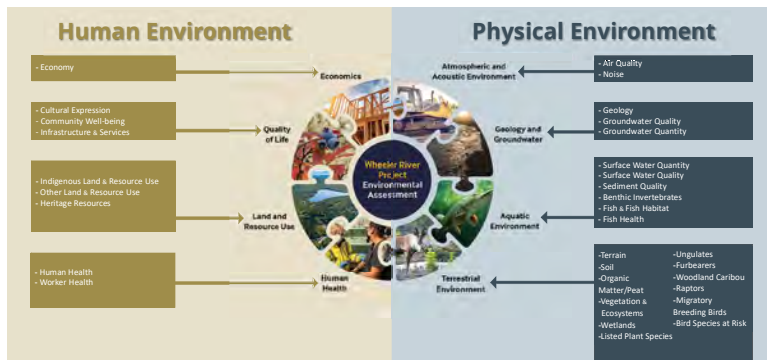


## Environmental Assessment: Approach and Methodology Overview





## Environmental Assessment: Project Valued Components



## Comments on Wheeler River EIS

Lac La Ronge Indian Band's EIS comments express interests in terms of the following themes:

1. Potential adverse impacts to the ability to exercise traditional uses (including cultural, spiritual, or other important sites)
2. Business and procurement opportunities

## Comments on Wheeler River EIS

LLRIB Comment: Potential adverse impacts to the ability to exercise traditional uses (including cultural, spiritual, or other important sites)

### Denison Response

- Potential effects of the Project on the aquatic and terrestrial environments, and associated potential impacts to the ability to exercise Indigenous Rights, have been comprehensively assessed:
- The spatial scale is very small (resulting from ISR mining method) of 160 hectares.
- For reference, the McIlvenna Bay Project (owned by Foran Mining; 85km west of Creighton) is 1,029 hectares (8 times bigger than Denison's Project)
- 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.

- N-18 Furblock is bordered by N-78 Furblock (Foster Lake), N-9 Furblock (Stanley Mission) and N-10 (Southend)
- The Project is located inside the N-18 Furblock (administered by English River First Nation)
- If LLRIB has information about trappers in and around the Project area, Denison would be happy to receive that information

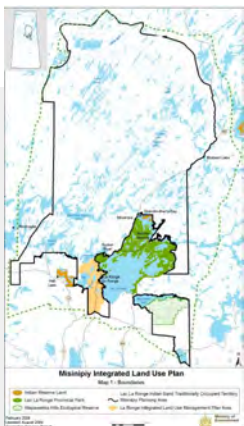


## 2. Business and Procurement Opportunities

LLRIB Comment: Reach out to Kitsaki-owned companies

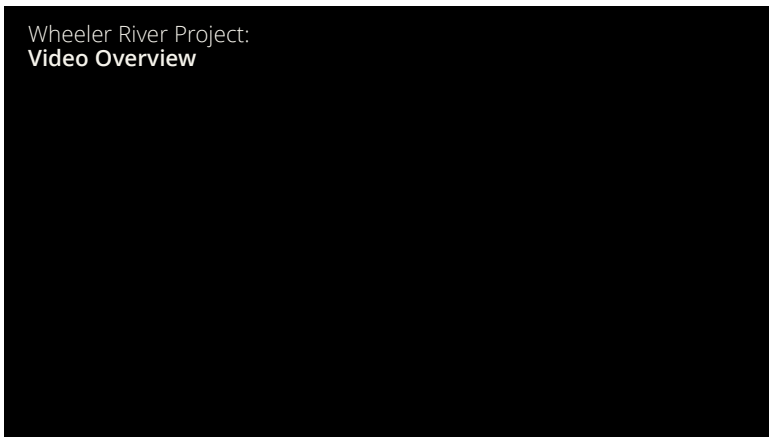
### Denison Response

- Denison has an Indigenous Peoples Policy – sets priority in respect of procurement with Indigenous People and Nations
- Denison has been actively working with NRT, CanNorth for activities presently occurring and will continue to do so
- Since 2019, Denison has spent more than \$1,100,000 with NRT and CanNorth
- Denison is in conversations with Optek Solutions, Athabasca Catering on a go-forward basis





## Questions and Discussion









## 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, Waterbirds, 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, raising, 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
- Kinship Mine Local 30 (Ponchoal)
- Mists Nation - Saskatchewan
- A La Bale Mine Local 31 (Weila Cross)
- Spotted Mine Local 37 (Beauval)
- Patuxent Mine Local 82 (Patuxent)
- Northern Hamlet of Patuxent
- Northern Village of Patuxent
- Northern Village of Weila Cross
- Northern Village of Beauval

Other communities, organizations and groups of interest:

- Lac la Ponge Indian Band
- Birch Narrows Dene Nation
- Buffalo River Dene Nation
- Hatcher Lake First Nation
- Black Lake First Nation
- Fond du Lac First Nation
- Hatcher Lake Tribal Council
- Yath'Yath' First Nation and Resource Office
- Prince Albert Grand Council
- Meadow Lake Tribal Council
- Commercial Trappers
- Commercial Fishers
- Commercial Lodgers
- 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:

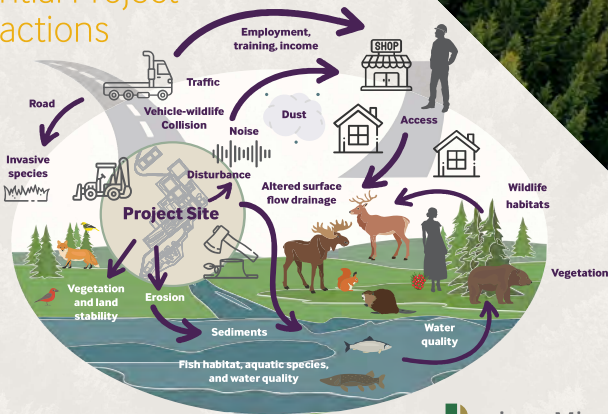
- Entered into an Exploration Agreement with English River First Nation
- Hatcher Lake First Nation Region 3 South Day Gathering
- Hatcher Lake First Nation and their market garden initiative
- Hatcher Lake hockey tournament
- Improvements to the English River First Nation Culture Camp at the Meadow Lake Reserve at 160km
- Many Christmas initiatives in the region, including those in Beauval, Weila Cross, and the Hamlet of Patuxent

**Denison Mines**  
wheelerriverproject.ca | denisonmines.com

Information provided as of May, 2022

## Wheeler River Potential Project Interactions

Powering  
PEOPLE, PARTNERSHIPS  
AND PASSION.



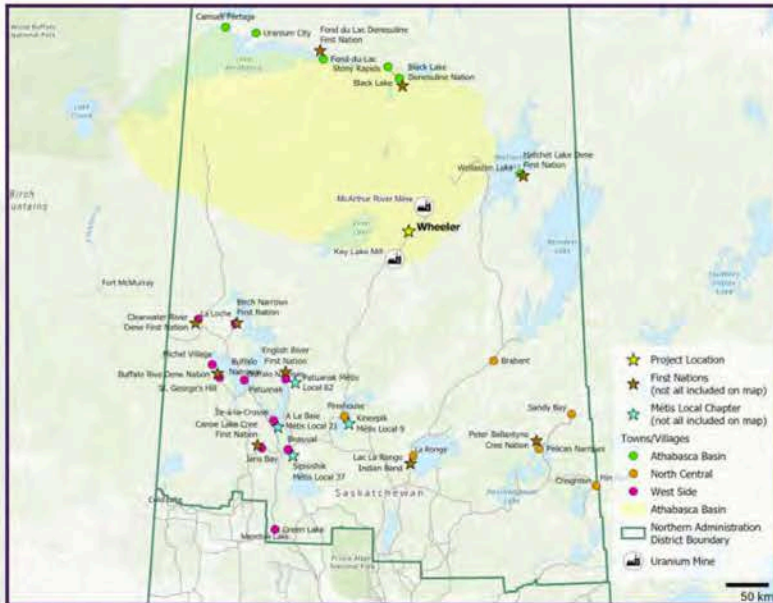
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Information provided as of May, 2022



- Powering PEOPLE. PARTNERSHIPS AND PASSION.





## tântê

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

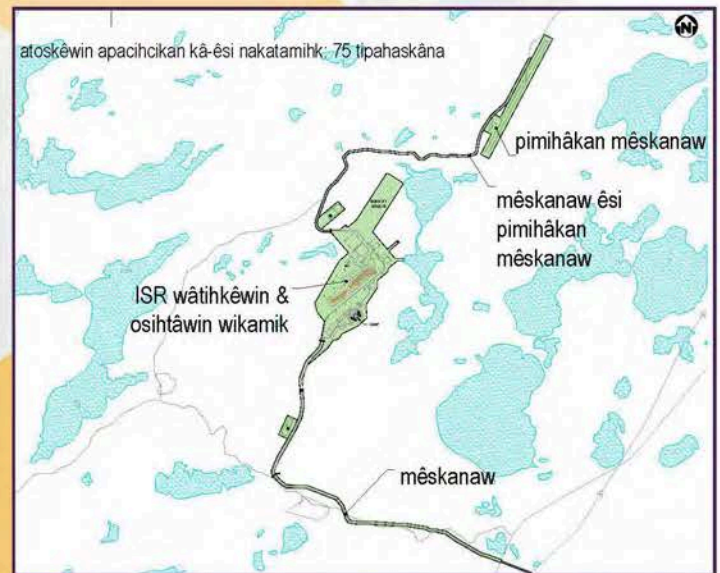
## atoskêwin kâ-êsi nakatamihk

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 wihkihasikan.

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

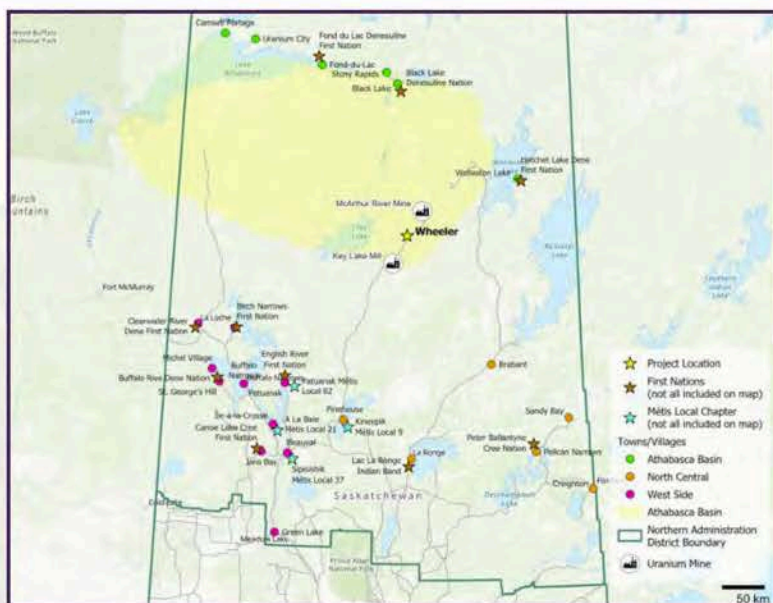


## mistakihtêki apacihcikana & atoskêwina waskawêwina

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







## LOCATION

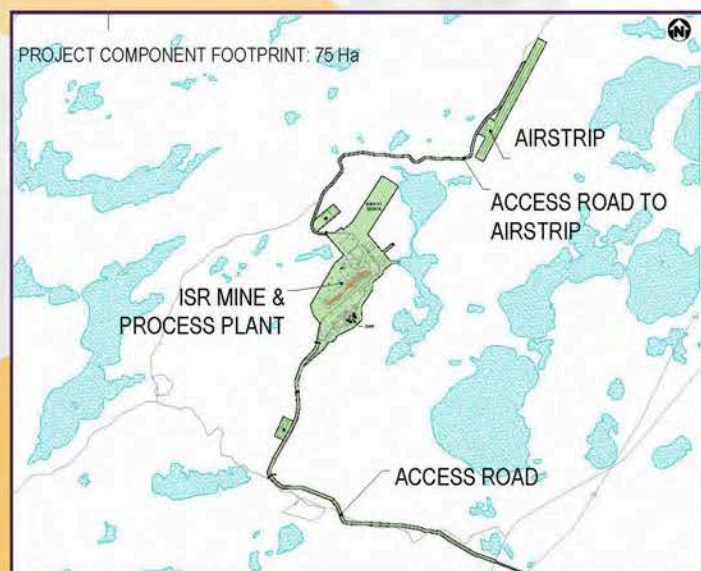
Ku diri k'eyaghë deht'is si t'a  
ts'en ëghadálghëna hasi horet'i –  
Dene nenene k'e.

## 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 sljñ hilchu, horjcha horet'i  
la, t'at'u tthe sëralye si bët'a les hoë. Ku eyer  
hots'i les bëghà nánj, horelyu nene k'e, t'a  
horehtth'a ch'a hodołni sj. Eyi Parałnj  
Greenhouse Emissions, diri nih k'e náide si  
besoıdi ha.



## VALUED COMPONENTS & PROJECT INTERACTIONS

T'a?u nih besoıdi 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.

# Wheeler River Project – Denison Mines

## mâci masinahamihk okâwiyâmâw 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:

- tânitê: 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 pimihaakan mêskanaw.
- pihcâyihk: kanâtahk nipiy, nanâtohk âpoya (osci wâtihkêwin, kaskatêw asiniy osihcikêwin, nipiy kanâcihcikêwin), wâskwatawêwin êkwa pimi.
- 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 pimi êkota kaskatêwi asiniy wikamikohk, sihtoskamihk okâwiyâmâw askiy itôtamowin ka-nîkipitamihk GHG kaskâpahtêwina.
- atoskêwin: nântaw 300 atoskêwiyiniwak kâ-osihtâhk êkwa 180 ikospê atoskêwin. anima pimipayicikêwin ka-pihci-pimihaak êkwa wayawê-pimihaak atoskêwin.
- atoskêwin ispayik, 5 askiy osci pônihkamihk, êkwa 15 askiya osci kîsihtâhki-pônihkamihk ispayihowina.

anima okâwiyâmâw askiy kinwâpahcikêwin (EA) kâ-masinahikâtêk ôta okâwiyâmâw askiy mêskopicitamihk 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 pihtaw 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. pihtaw 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, ayisîniwak, 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 wiyascikêwin kîkway ka-sihtoskamihk nîkânihk itôtamowina êkwa pîkiskwêstamwak pêyak itôtamowin êkota kâ-ayimahk EA, masinahikêwin, êkwa pakitinamihk kaskatêwi asiniy wâtihkêwin wikamik êkota kanâta.



# 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'ěl si, t'ēs tth'i ts'etai sēlye si."
- Ku diri halye ha si, t'áchaghē, tthe t'a bohełtaile si, t'aʔu nih dałdhe nįsi, tu, tujērē-ú, tsą tue-ú, t'aʔu tthe t'arat'į si tu hēł 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 ʔańį 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'át'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) hoʔanelt'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 ła-ú, tu t'a bēt'á Eghalada si besorįthēn ha la. ʔątu 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 nuųha besudi hoʔą.

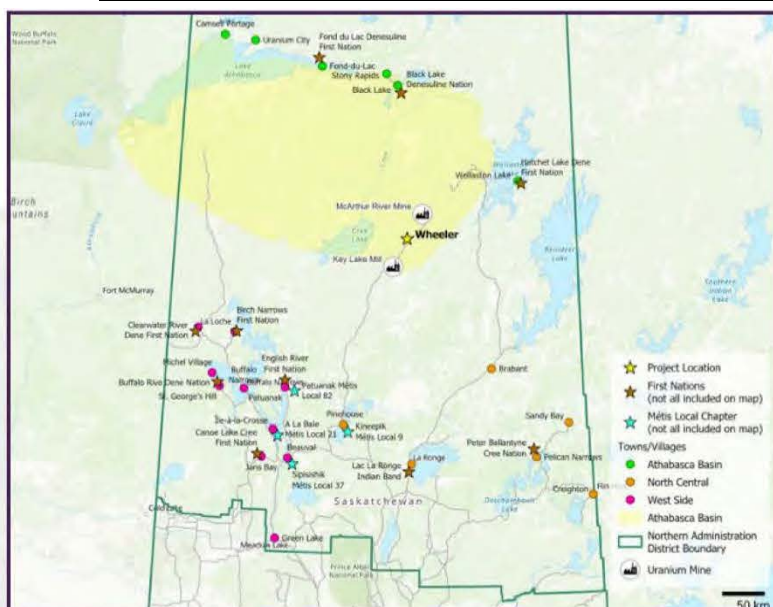
Diri t'aʔu nih ghą ēghádálana si hotié bahodi, t'aʔu erit'is holį si hotié déʔą, t'aʔu ts'etai sohúde-ú, t'aʔu ēghádálana-u, t'aʔu nih senalye si hotié déʔą.

Diri t'aghą ēghádálana si hotié nih hodi ha henį, yanįzi t'aʔu nih hesdohołts'į si konalyehaile dųų henį. T'a tthe nih-u, tu-u, ya-u bēt'á nezųle ni, dųų 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 – dųų kone haile henį.

Dųų 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

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

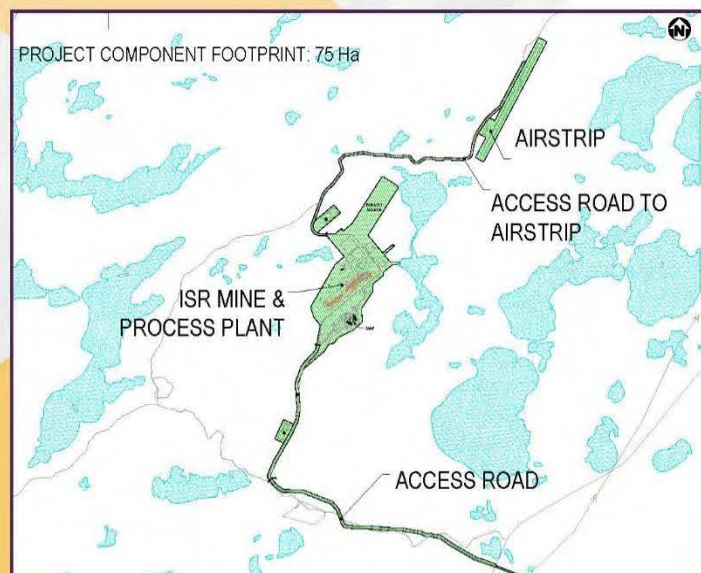


## PROJECT FOOTPRINT

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

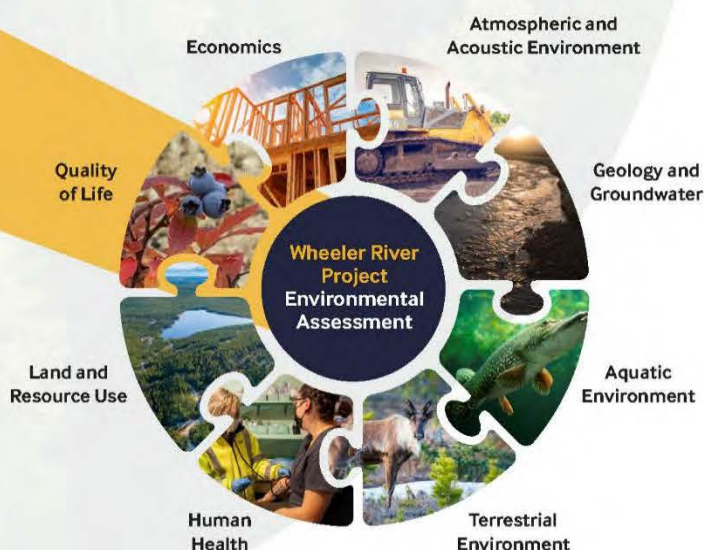
## IN SITU RECOVERY

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.





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**PEOPLE, PARTNERSHIPS  
AND PASSION**

# Open House

**Northern Village of Beauval**

**Beauval Recreation Centre - Main Gym**

**Oct 23, 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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**From:** [Cheyenna Hunt](#)  
**To:** [Carolanne Inglis-McQuay](#)  
**Cc:** [Janna Switzer](#); [Robin Kusch](#)  
**Subject:** [\*\*]ERFN Summary Review Comments  
**Date:** Friday, August 18, 2023 12:53:53 PM  
**Attachments:** [EIS\\_SummaryReviewCommentsFollowingSubmission\\_WheelerRiver-DRAFT\\_26July2023.pdf](#)  
[ERFN\\_Comments\\_Wheeler\\_River\\_Project\\_EIS.DOCX](#)

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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.

Good Afternoon Carolanne,

Please find attached the PDF version of the ERFN EIS Summary Review Comments following submission. I have also attached the word version of our “unofficial” table which outlines how we categorized responses.

I apologize for the delay.

Cheyenna

---

**Cheyenna R. Hunt B.A., LL.B.**  
Director, Lands & Consultation

English River First Nation  
Urban Office  
321 - 2555 Grasswood Road  
Saskatoon, Sk. S7T0K1

Cell: [REDACTED]

Email: [REDACTED]