

AER Brine-Hosted Minerals Virtual Information Session

Presented by: Shaunna Cartwright Director, Minerals Strategy & Implementation

May 11, 2022





Agenda

Opening Remarks

Minerals Strategy Implementation

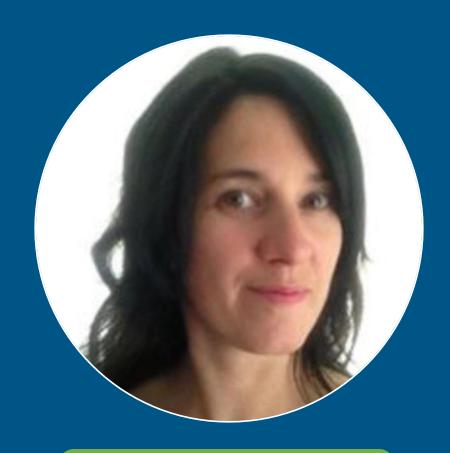
Regulatory Development Process

Potential Mineral Resource Development

Next Steps

Q&A Session

PRESENTERS



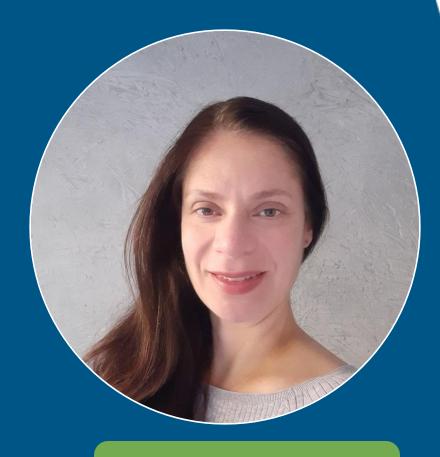
SHAUNNA CARTWRIGHT

DIRECTOR, MINERALS
STRATEGY &
IMPLEMENTATION



CHER JACOBS

SENIOR SPECIALIST, REGULATORY DESIGN



GLORIA LOPEZ

GEOLOGIST, MINERAL RESOURCES, ALBERTA GEOLOGICAL SURVEY

Tips for Participation

Asking Questions

- Read out questions sent in advance
- Use the 'Q&A' icon to submit your question in writing
- Email your question to minerals@aer.ca

Using Teams

• Having technical issues? Contact 1-855-297-8311 or email minerals@aer.ca

MINERALS STRATEGY IMPLEMENTATION



SHAUNNA CARTWRIGHT DIRECTOR, MINERALS STRATEGY & IMPLEMENTATION

Why Develop Minerals in Alberta?

- The Government of Alberta wants to:
- 1. Be the preferred producer and supplier of minerals and mineral products in Alberta and internationally.
- 2. Address the shift towards a lower-carbon economy.
- 3. Strengthen and diversify the economy.
- 4. Create jobs.
- 5. Attract investment.



Role of the Alberta Energy Regulator (AER)

- Expanding mandate to include the regulation of minerals (including critical minerals and rare earth elements).
- The Mineral Resource Development Act (MRDA) will establish the AER as the life-cycle regulator for Alberta's mineral resources.



Minerals Strategy Implementation – The Journey



2021: Alberta Energy completed stakeholder engagement on the Minerals Strategy.

Nov 4: Public release of the Minerals Strategy and Action Plan - Renewing Alberta's Mineral Future.

Nov 17: Bill 82, Mineral Resource Development Act (MRDA) -Legislative engagement sessions with stakeholders and Indigenous communities.

Dec: Cabinet approved of Bill 82.

Dec: GoA continued their engagement sessions with Indigenous communities and other external stakeholders.

Winter: AER supported GoA in drafting new and amending existing regulations.



2023:

- AER will continue to develop the regulatory tools for brinehosted and rock-hosted minerals, business processes, and technology solutions required to implement the MRDA.
- AER will continue to inform and engage with stakeholders.



2021

2022

Today

2023

Continuing into 2024/25

Desired Outcomes:

The AER is the life cycle regulator for minerals under Bill 82.

Alberta is ready and able to grow and sustain the minerals sector.

2019/20:

- The Canadian Minerals and Metals Plan & Action Plan was released.
- Alberta Recovery Plan –
 Announcing the Development of a Minerals Strategy and Action Plan

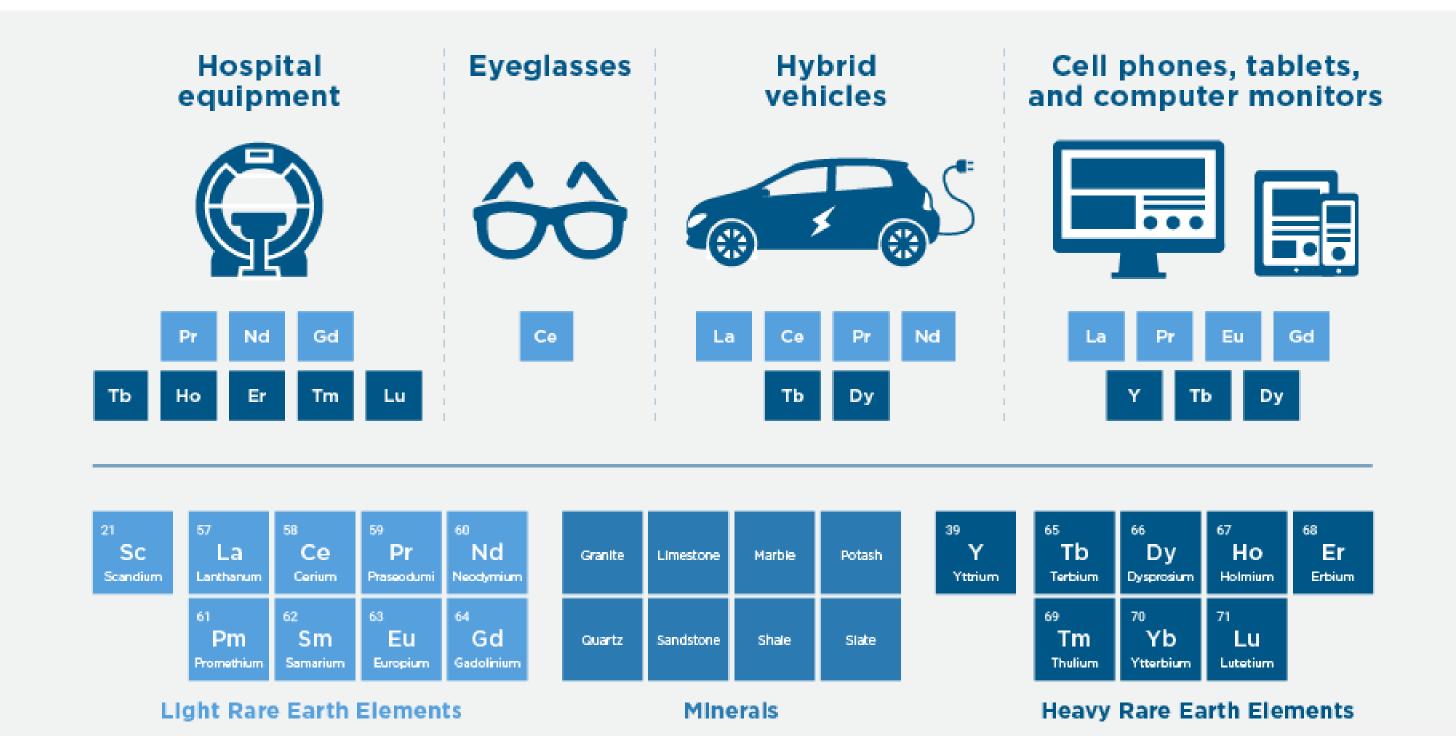
2022:

- Develop the rules and directives for brine-hosted minerals.
- Engage with stakeholders and Indigenous communities to inform the creation of future regulatory instruments for minerals.
- Design and develop business processes and technology solutions to accept applications.





Minerals: Everyday Use



Brine-hosted Minerals

Brine-hosted minerals are typically found in underground saltwater and are mostly extracted through well infrastructure.



REGULATORY DEVELOPMENT PROCESS

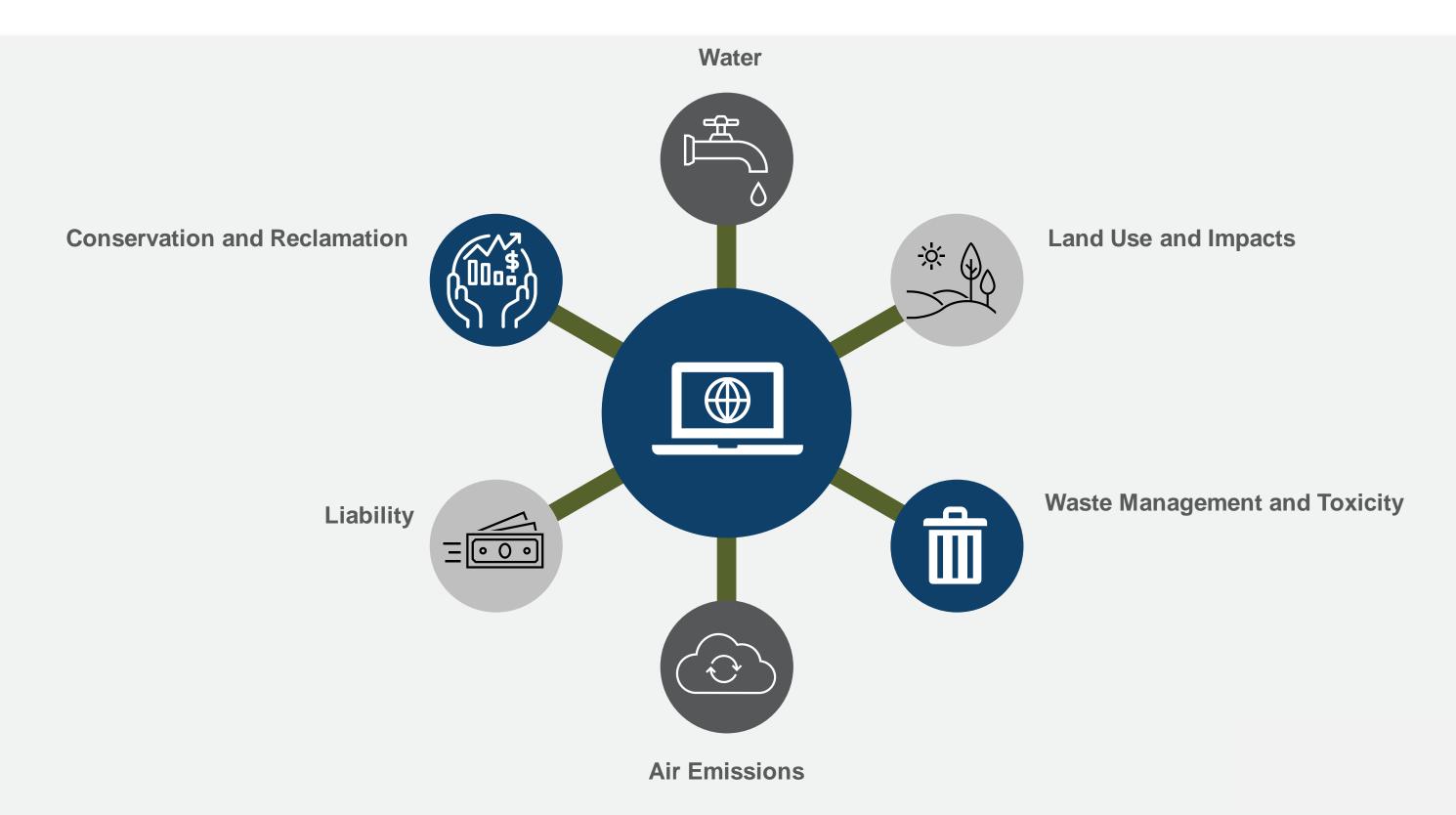


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SENIOR SPECIALIST, REGULATORY
DESIGN

Minerals Regulatory Framework Overview



Addressing Risks with Regulations



POTENTIAL MINERAL RESOURCE DEVELOPMENT



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ALBERTA GEOLOGICAL SURVEY

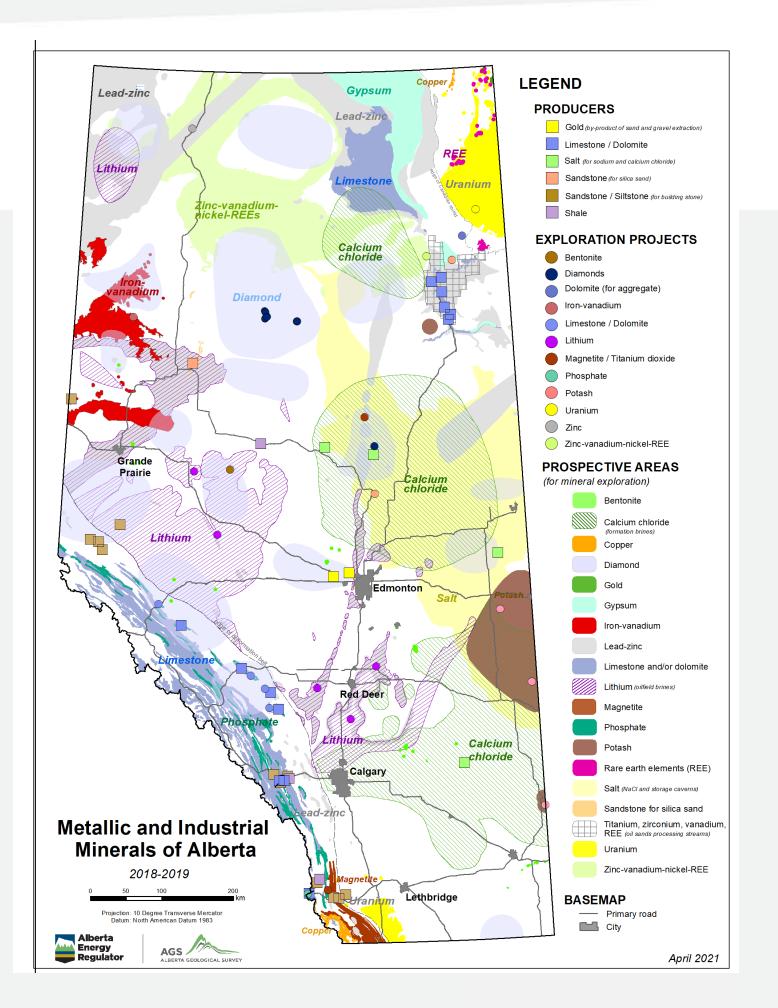
Potential of Mineral Resource Development

- The Alberta Geological Survey (AGS) is responsible for describing the geology and resources in the province.
- AGS has been researching minerals in Alberta for decades.
- This has helped to map the geology and minerals in our province and to identify the potential for mineral resource development.



Minerals in Alberta

- The Minerals of Alberta map highlights areas with the potential for mineral exploration.
- Includes all minerals except coal, sand, gravel, and ammonite.



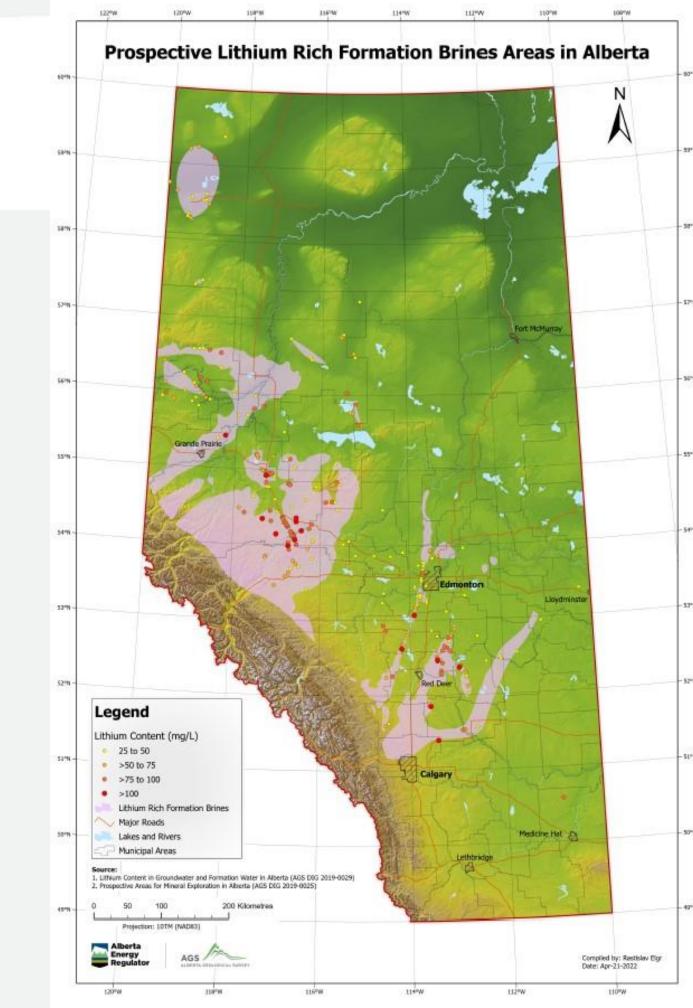
Brine-Hosted Mineral Extraction

- Calcium and magnesium are already produced from brines in Alberta.
- Drine-hosted minerals are extracted similar to how we recover oil and gas from reservoirs.
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Lithium Potential in Alberta

- Some of Alberta's brines contain lithium, among other elements of economic interest.
- The AGS has been studying mineral rich brines since the 1970s and particularly lithium rich brines since the early 2010s.



NEXT STEPS

Further Engagement and Timeline

- Post-session survey: May 18
- ∑ Engagement workshops: May 31 June 2
- Public comment period: Fall 2022
- Accepting applications: Early 2023



CONNECT WITH US

AER WEBSITE: WWW.AER.CA

EMAIL: MINERALS@AER.CA

INQUIRIES LINE: 1-855-297-8311



How to Ask Questions on Teams

- Refer to the information package that was sent after you registered.
- Description Submit questions using the 'Q&A' icon if you're using the MS Teams app.
- Or, submit questions to minerals@aer.ca.
- We will do our best to address every question in the time allotted.
- Please use respectful language.



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MINERALS SURVEY QR CODE

