

Impact of Mines for the Just Transformation, Cree EA Process



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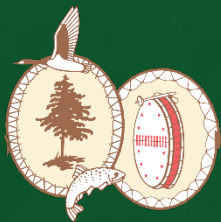
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Cree Nation Government for Eeyou Istchee

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By Cameron McLean



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Grand Council of the Crees (Eeyou Istchee)
Grand Conseil des Cris (Eeyou Istchee)

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Cree Nation Government
Gouvernement de la Nation Crie



Land Comparison between Eeyou Istchee, Quebec, Canada and Ireland



Our Environment Team

ESIA Practitioners

Wildlife Biologists/Technicians

Mining Engineers and Specialists

Community Engagement



Our Existing Departmental Priorities

- Protected areas
- Mining
- Land use planning
- Environment management in category II and III lands
- Lands standards and/or guidelines
- Wildlife management and conservation
- Environmental assessment
- Geographic information systems (GIS) capacity and capability
- Monitoring

The Cree lands in northern Quebec, Canada which are affectionately called Eeyou Istchee, is a territory that has been covered by an Environmental and Social Impact Assessment (ESIA) process since 1975 that is tasked with providing for development while protecting the environment and the traditional way of life of the Cree.

That ESIA process is found in Section 22 of the James Bay and Northern Quebec Agreement (JBNQA) which outlines the way that projects will be reviewed and includes the imperative to review both social and environmental impacts and inform the decision-making process.

EA in the Cree Nation

Mandate

Our goal is to:

- Defend Cree hunting, fishing, and trapping rights.
- Minimize negative environmental and social impacts.
- Protect the Cree people, societies, communities, economies from development activities.
- Protect wildlife resources and their ecosystems from developmental activities.
- Provide technical analysis, advice and support to the Cree communities and Committees created under JBNQA Section 22 (JBACE, COMEV, COMEX and COFEX-S).

Impacts of Climate Change

Cree in Quebec experience acute impacts from climate change, while proposed solutions require additional mines and IA process reviews the impact on the environment and traditional way of life.

- Traditional transportation on Ice affected by climate change
- Invasive species enter, stress on existing ecosystem
- Forest Fires season is ever increasing
- Precipitation Patterns changing- geotechnical instability

Land slips due to precipitation





Projections



CLIMATE CHANGE PROJECTIONS

What could future climate look like in Eeyou Istchee / Québec?



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Cree Nation Government
Gouvernement de la Nation Cris



Climate models are complex computer programs that mimic how the Earth behaves.



Scientists can use these models to project what future climate might be like if we emit lots of greenhouse gases (GHGs) or if we emit less.



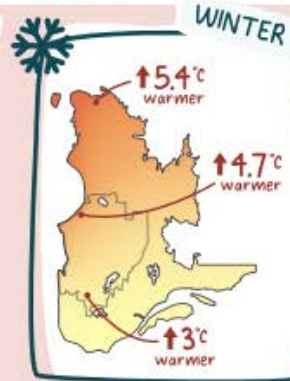
If we keep emitting GHGs at the rate we are now, our climate will likely follow the path projected by the "high emissions" climate models.



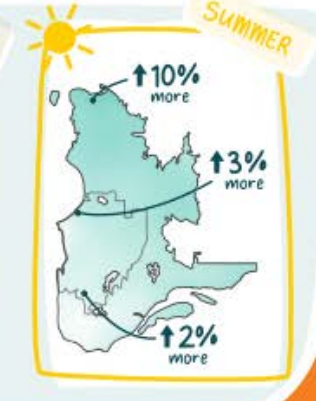
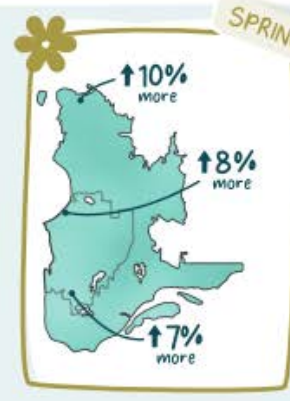
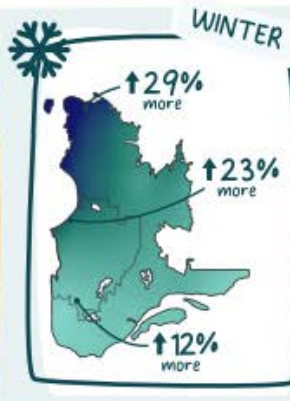
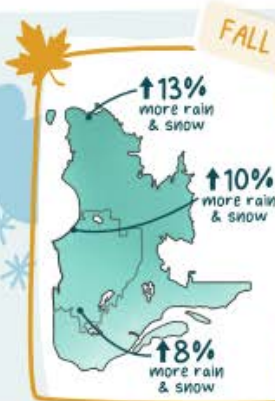
Maps below show temperature & precipitation (rain & snow) for a high emissions future.



How much warmer could the future (2021-2050) be compared to the past (1976-2005)?



How much more rain & snow could the future (2021-2050) have compared to the past (1976-2005)?



What could these changes mean?



FALL

- later snowfall
- longer fire season



WINTER

- more winter rain
- thinner ice



SPRING

- faster melt
- more flooding



SUMMER

- more drought
- more wildfire

Climate projections can help us plan adaptations. Adaptations that plan for high emissions can help protect people and communities from climate change impacts even if we follow another path.

Transition to Carbon Neutral Economy



Reducing the reliance on fossil fuels will cause issues with the replacements. The replacements are at the moment focusing on lithium and other rare earth minerals.



The exploration and potential mines are taking place in Eeyou Istchee.



There will be a cumulative impact of all these future mining projects. Mines have a lasting impact on the wildlife and the environment, even after closure. It is impossible to estimate how many mines will be needed to meet demand.

Distribution of Canadian Lithium Resources

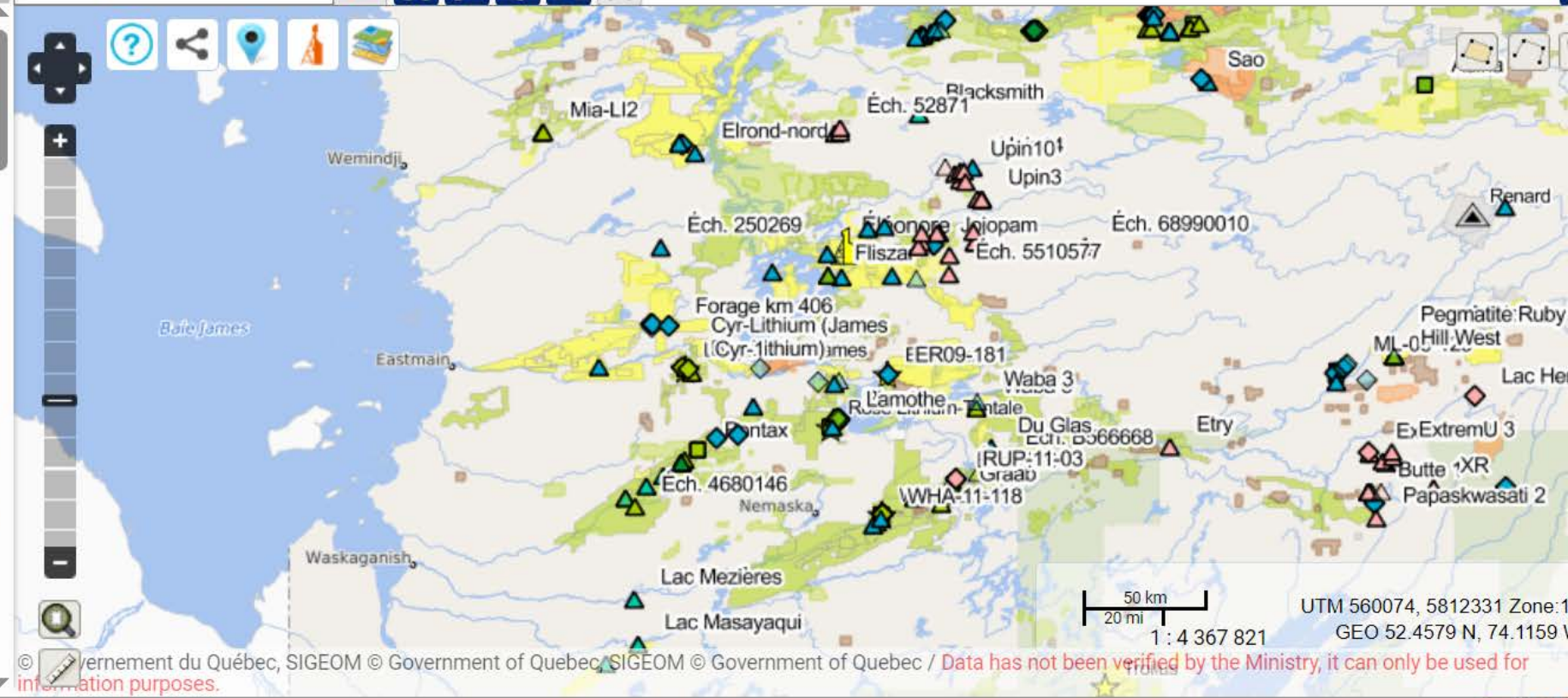


Sources: Canadian Energy Research Institute, Roskill Information Services 2021

Address, place, postal code...

Map navigation controls including a compass, zoom in (+) and zoom out (-) buttons, a vertical zoom slider, and a search icon.

- Deposits**
- Metallic deposits
 - All chemical elements
 - Antimony (Sb)
 - Beryllium (Be)
 - Bismuth (Bi)
 - Cadmium (Cd)
 - Cesium (Cs)
 - Chromium (Cr)
 - Cobalt (Co)
 - Copper (Cu)
 - Gallium (Ga)
 - Gold (Au)
 - Indium (In)
 - Iron (Fe)
 - Lead (Pb)
 - Lithium (Li)
- Timeline sliders for Beryllium (Be) and Lithium (Li) with date ranges [1906 - 2024] and [1884 - 2024].



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Over the past decade, there has been an increase in the number of lithium and rare earth mining projects that are going through the ESIA process of which the Cree are involved at all levels.

The increase is being driven by the decarbonization of the energy stream and the need for batteries for Electric Vehicles and components. As the various climate change targets are proposed and initiatives, more mines will evidently be required.

How to power the transformation?



Solar farms



Wind farms



Biomass



Tidal harnessing



Hydro Electric Development



Transmission lines to move the energy where it is, to where it is consumed.



Nuclear? (more mines)

Impact Assessment for a Just Transformation

The Just Transformation calls for improving the efficiency and expediency of the EA process which reviews and approves the mines that will provide material for the batteries required.

However, the effective ESIA in this scenario needs at the same time to take notice of the impacts of climate change as it affects Cree traditional practices as we experience unprecedented levels of wildfires, extreme weather events. This presents a whole set of new challenges for EA practitioners.

Basic question?

ESIA in the long term will be tasked with increasingly complex determinations of the impact of projects on the environment, as the environment and the way of life that depend on it, will be in a continual state of adaptation and fluctuation of known baselines.

How reliable will the predictive capacities of ESIA need to be to evaluate and mitigate for development projects as we enter uncharted territory and the impacts on the environment and the Cree way of life, are rapidly changing?

Let's continue the conversation!

Post questions and comments in the IAIA24 app.



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