MACKENZIE VALLEY OPERATIONAL DIALOGUE

Presentations and Case Studies | March 10-12, 2020

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Mackenzie Valley Resource Management Act (MVRMA) In A Day

Mackenzie Valley Land and Water Board

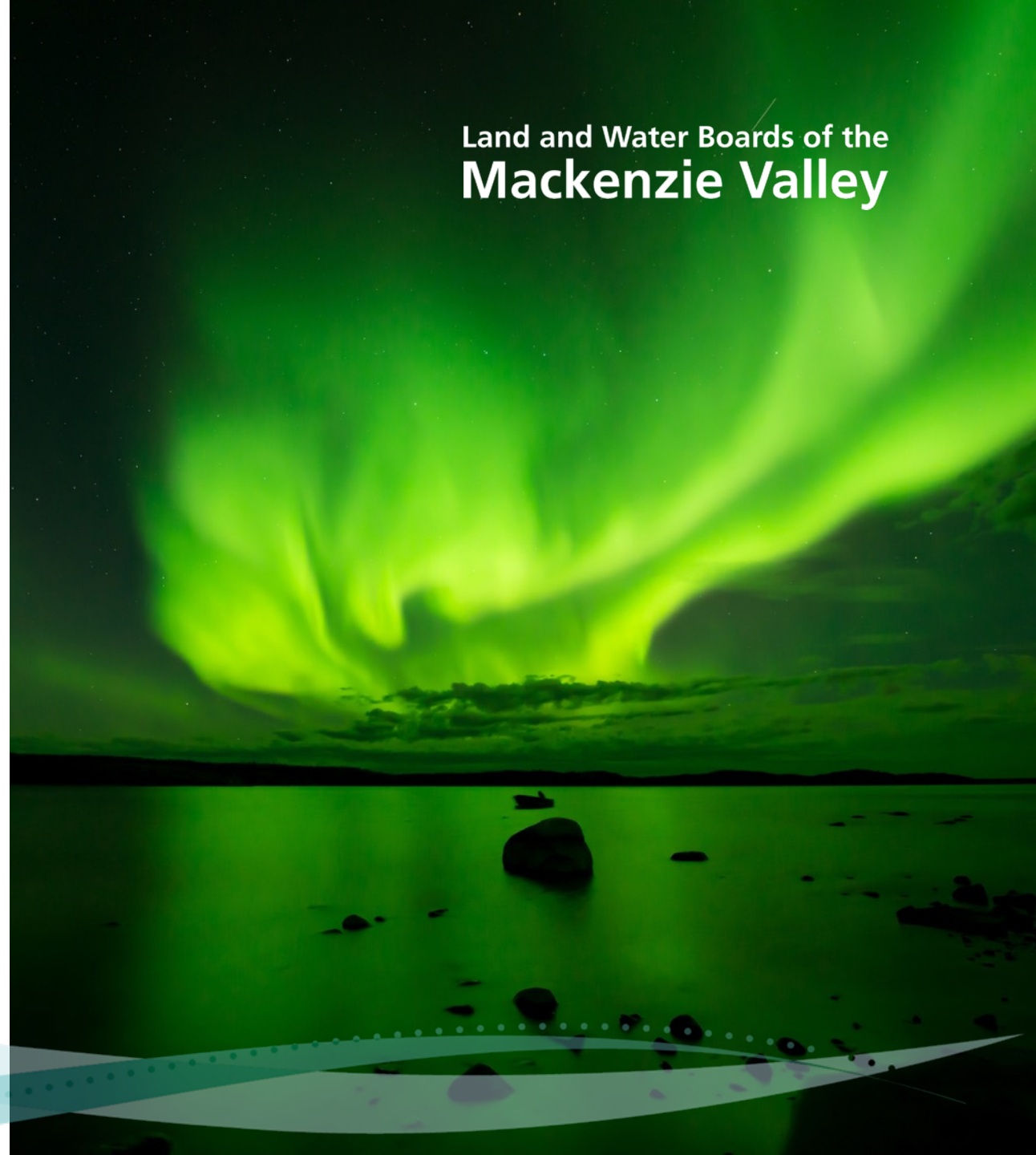
SAHTU LAND & WATER BOARD

GWICH'IN LAND AND WATER BOARD

Wek'èezhìı Land and Water Board

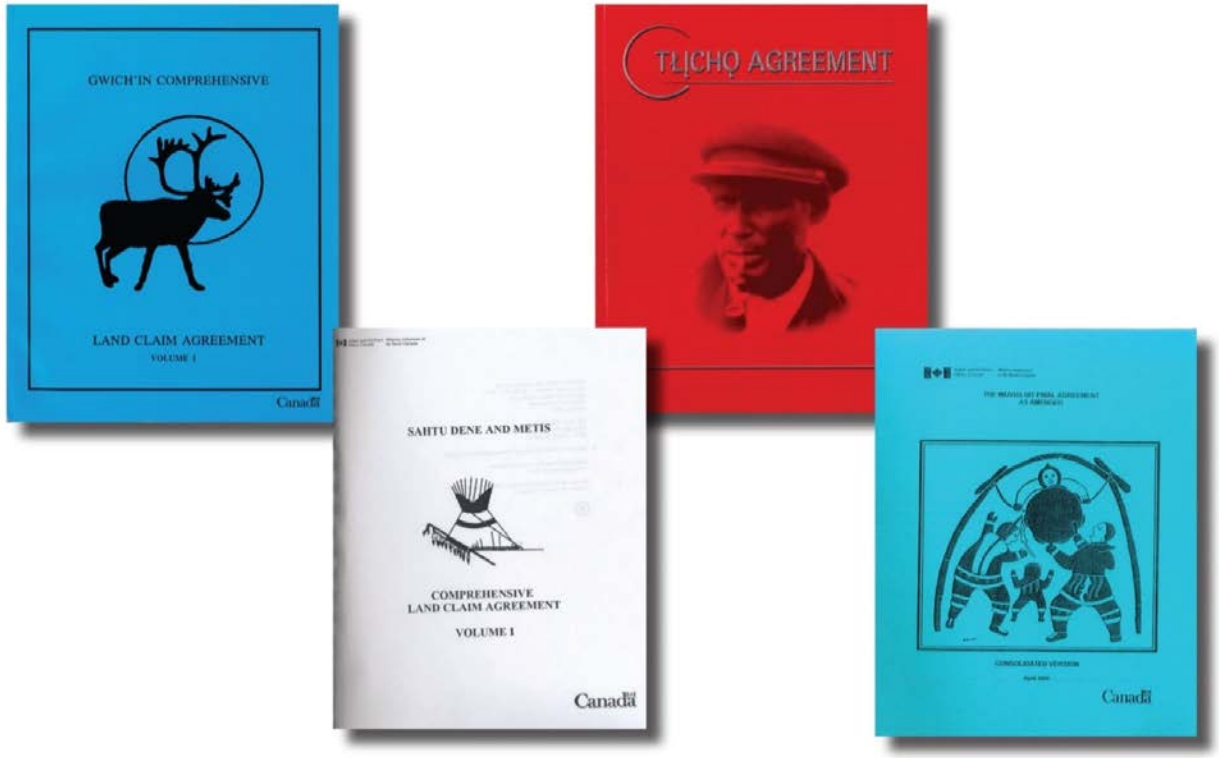
Roundtable of Introductions

- Name
- Organization
- Role



The Co-management of Resources in the NWT

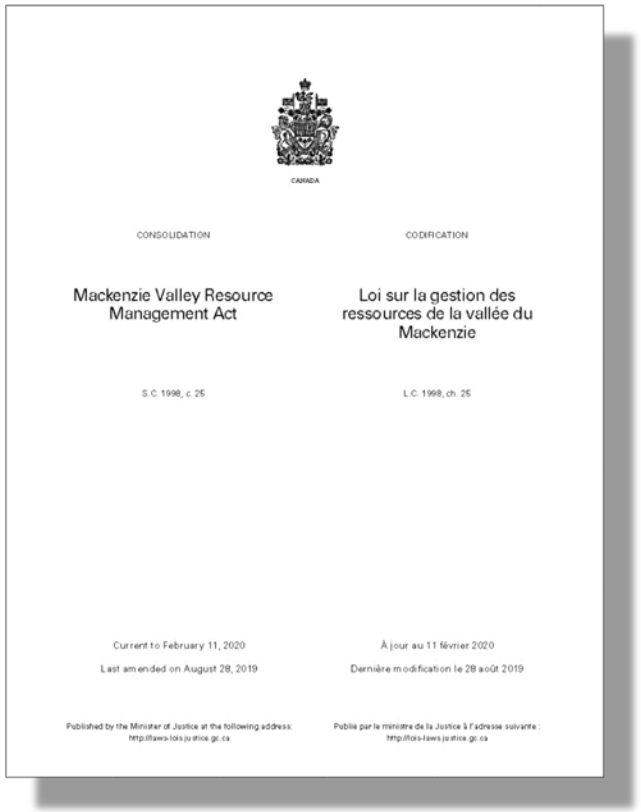
Land and Water Boards of the Mackenzie Valley



Areas without Settled Land Claims (Interim Agreements)

The MVRMA & Co-management

Land and Water Boards of the Mackenzie Valley



CANADA

CONSOLIDATION

Mackenzie Valley Resource Management Act

S.C. 1998, c. 25

CODIFICATION

Loi sur la gestion des ressources de la vallée du Mackenzie

L.C. 1998, ch. 25

Current to February 11, 2020

Last amended on August 28, 2019

À jour au 11 février 2020

Dernière modification le 28 août 2019

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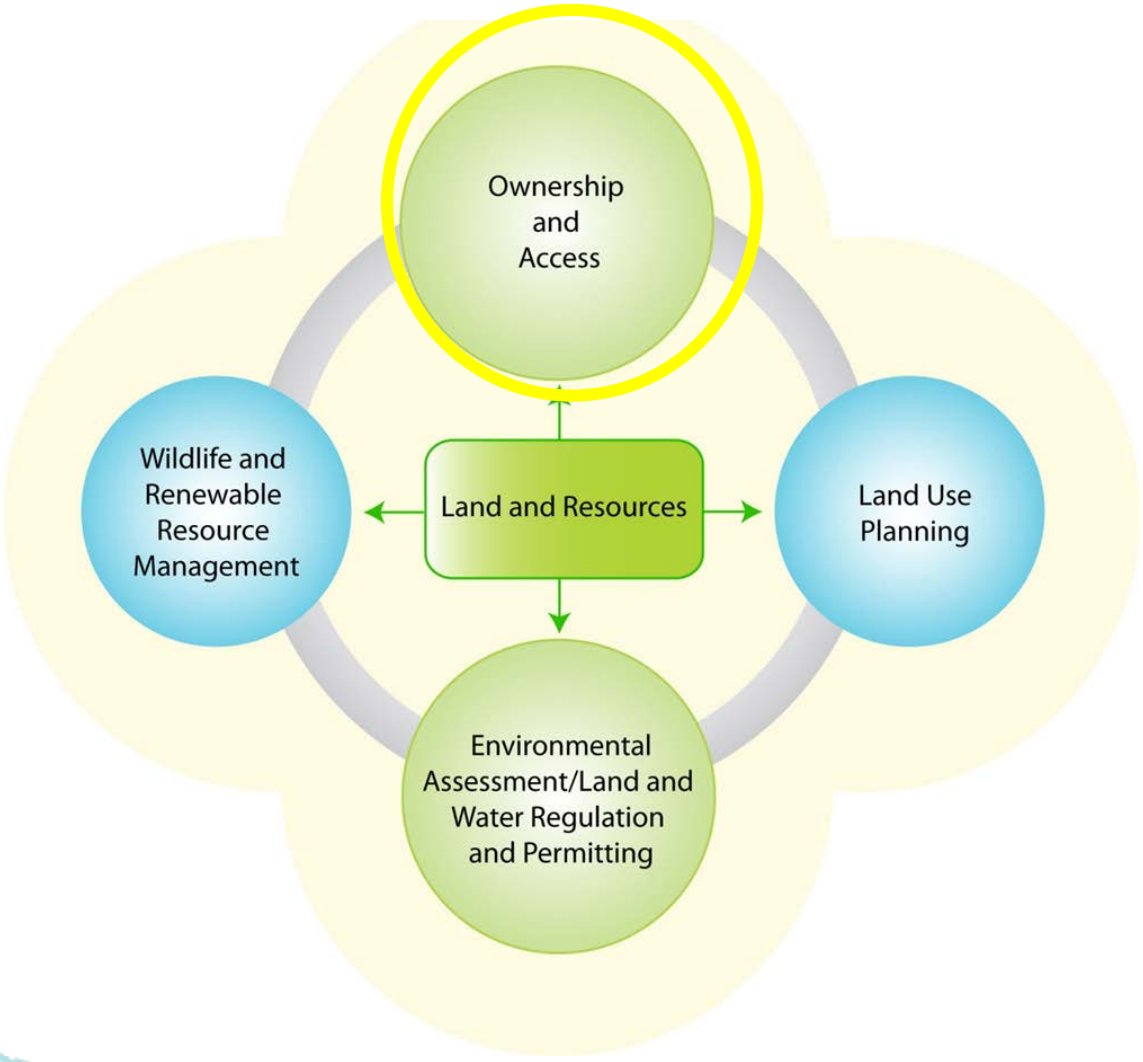
Co-management is a system that recognizes the Traditional Knowledge of residents and gives them the right to participate in decision making.

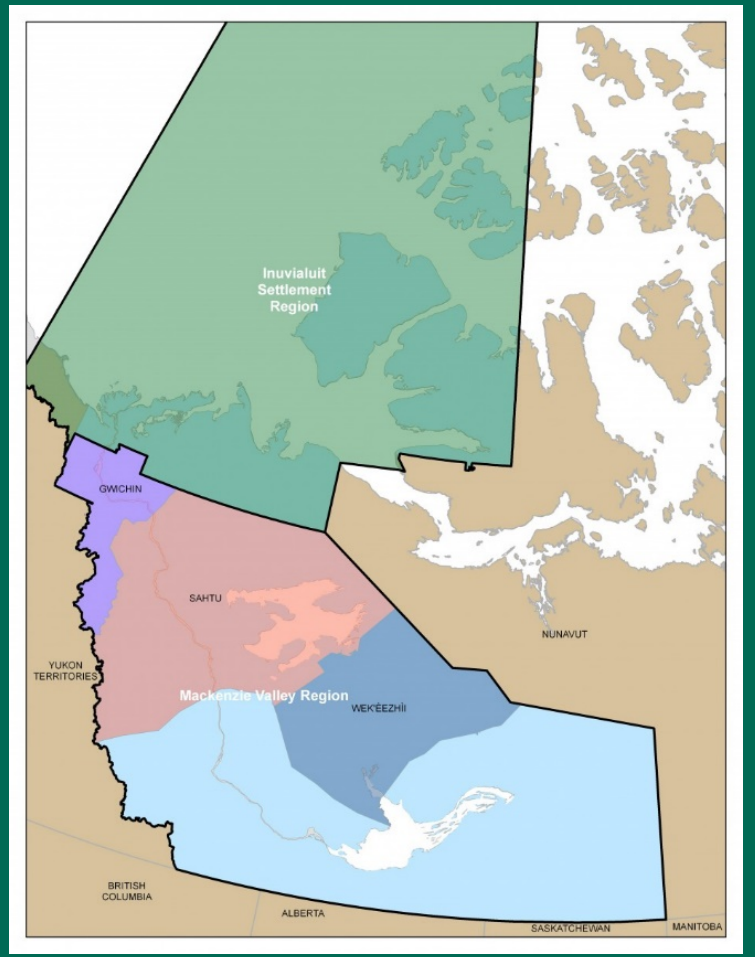
For the resource and regulatory Boards, it means a system of resource management that considers environmental, economic, and social concerns from Aboriginal, Territorial, and Federal governments.


GWICH'IN LAND AND WATER BOARD
Colville Lake
ARCTIC CIRCLE
Fort Good Hope
Wek'èezhìı Land and Water Board
Mackenzie Valley Land and Water Board
Norman Wells
Déline
Tulita
SAHTU LAND & WATER BOARD
Gamètì
Wekweètì
Wrigley
Whatì
Bechoko
Edzo
Yellowknife
Nahanni
Fort Simpson
Dettah
Lutselk'e
TREE LINE
Jean Marie River
Nahanni Butte
Fort Resolution
Fort Providence
Hay River
Fort Liard
Trout Lake
Enterprise
Fort Smith

Land and Water Boards of the Mackenzie Valley

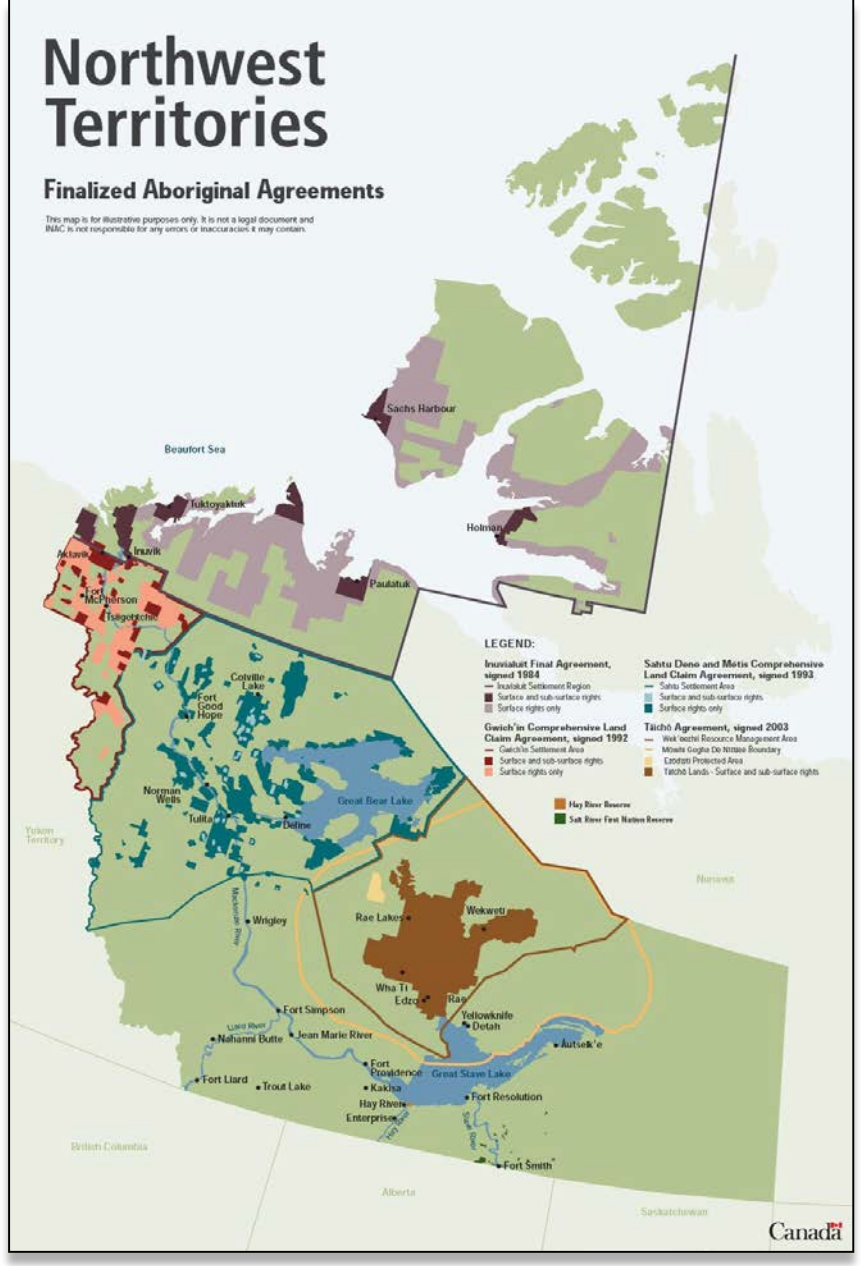


Land and Resource Co-Management



Land Ownership in the NWT

Land and Water Boards of the
Mackenzie Valley



Land and Water Boards of the Mackenzie Valley

Land and Resource Co-management

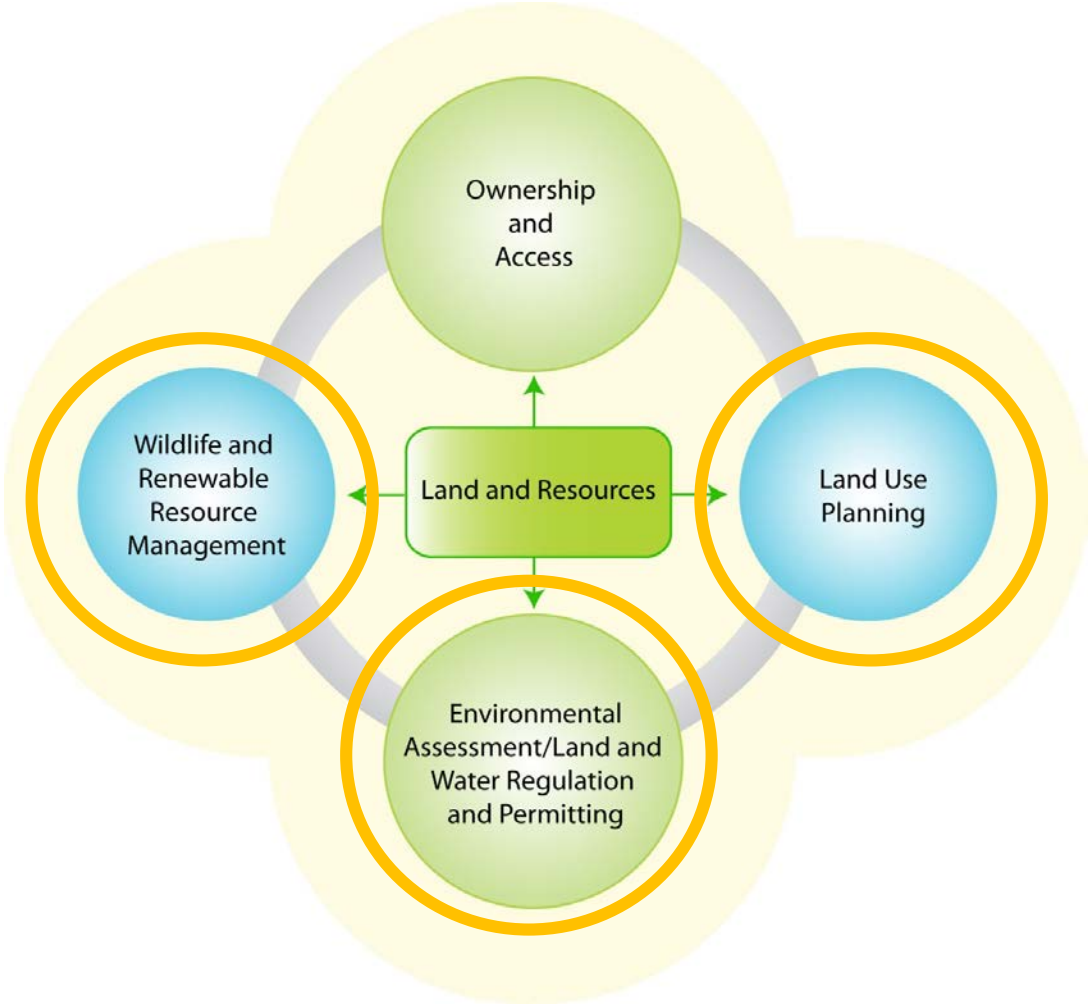


Photo Credit to Gordon Court

Boards in the Co-management System

EIA and Regulation

- Mackenzie Valley Land and Water Board
- Gwich'in Land and Water Board
- Sahtu Land and Water Board
- Wek'èezhìı Land and Water Board
- Mackenzie Valley Environmental Impact Review Board

Land Use Planning

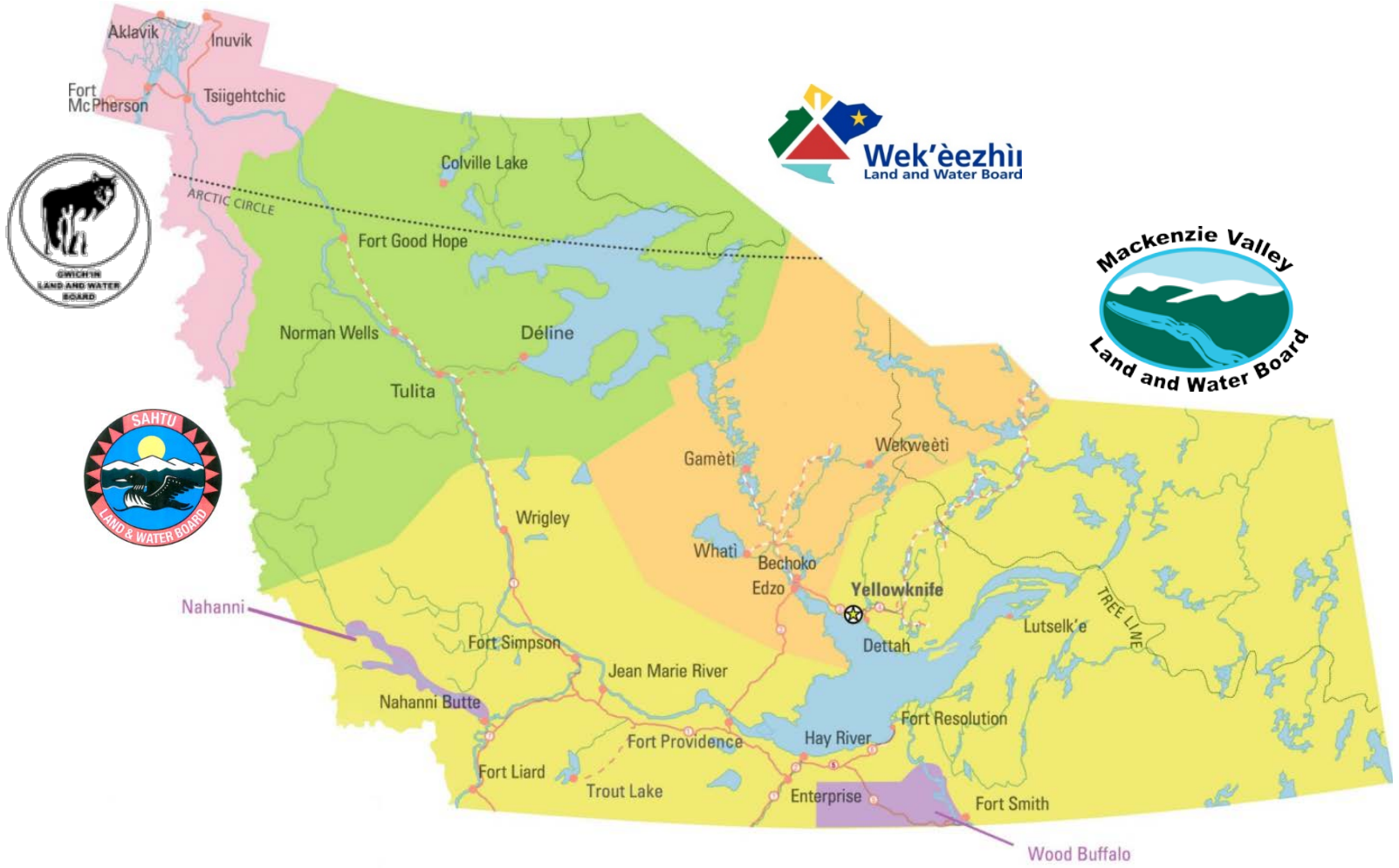
- Sahtu Land Use Planning Board
- Gwich'in Land Use Planning Board

Renewable Resources Boards

- Sahtu Renewable Resources Board
- Gwich'in Renewable Resources Board
- Wek'èezhìı Renewable Resources Board

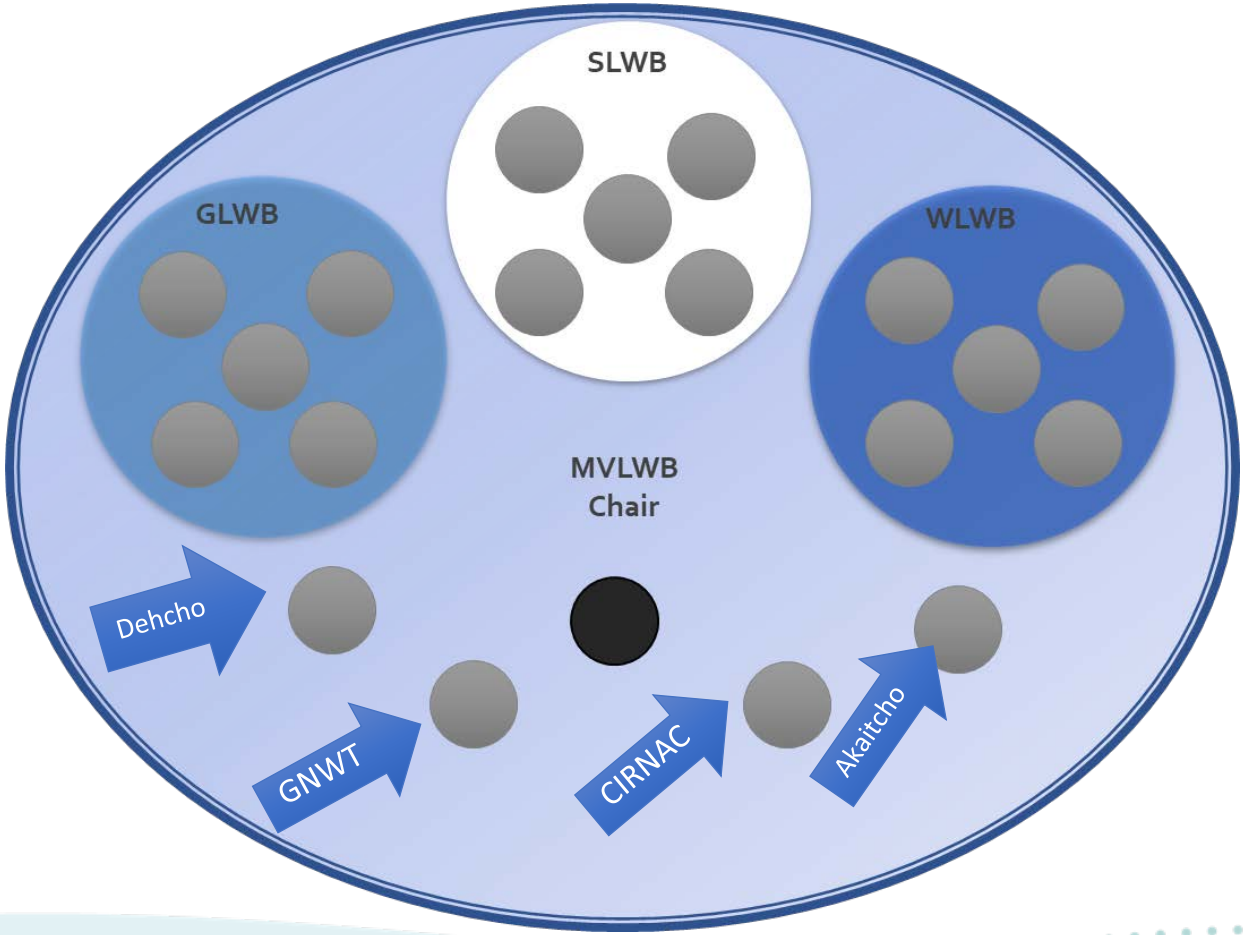
Land and Water Boards of the Mackenzie Valley

- Gwich’in Land and Water Board
- Sahtu Land and Water Board
- Wek'èezhìı Land and Water Board
- Mackenzie Valley Land and Water Board



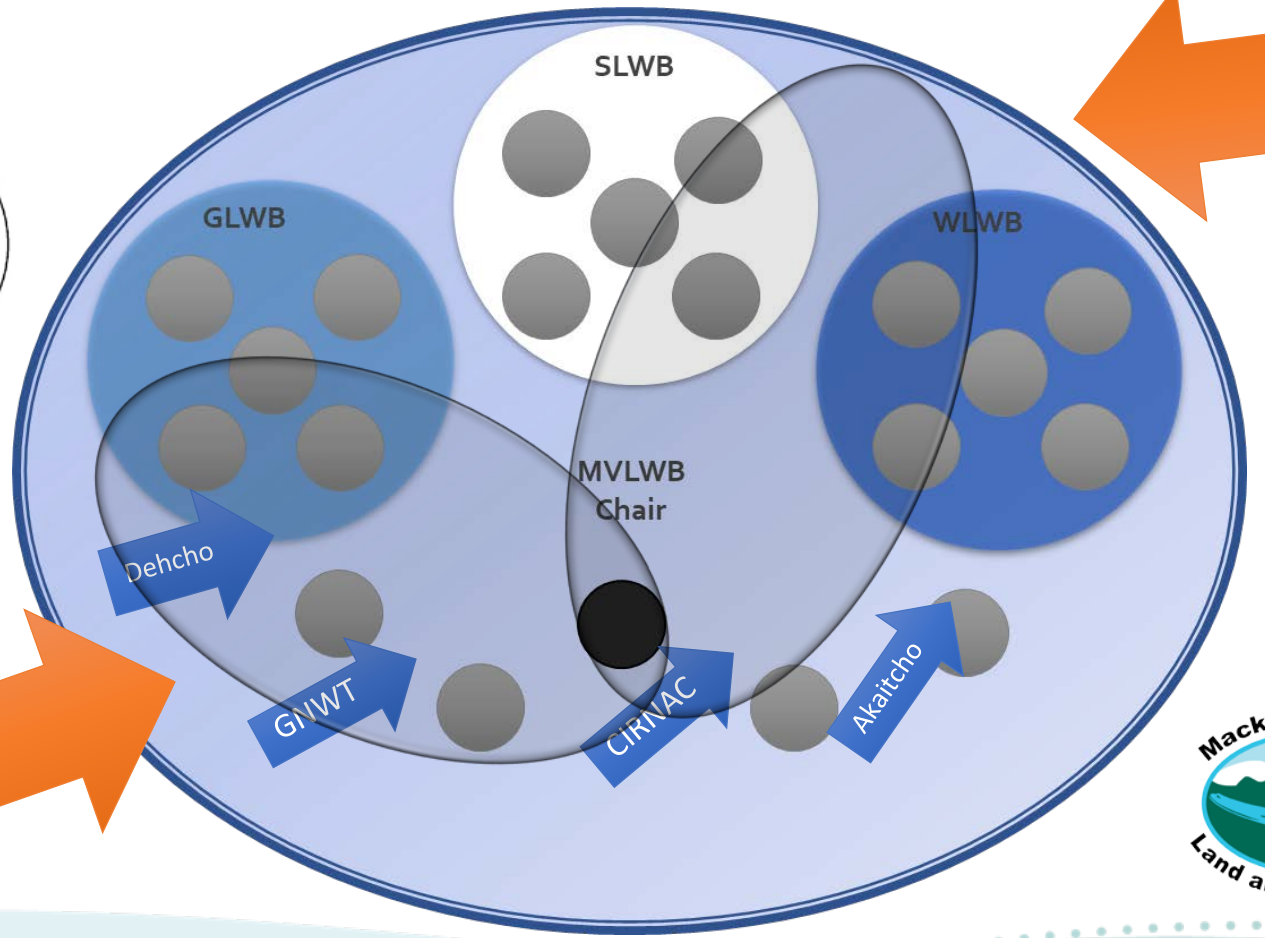
Board Structure

Land and Water Boards of the Mackenzie Valley



Board Structure – Transboundary Panels

Land and Water Boards of the Mackenzie Valley



Transboundary Panel between Sahtu and Wek'èezhìi

Transboundary Panel for Unsettled and Settled Region

Our Mandate

Land and Water Boards of the Mackenzie Valley

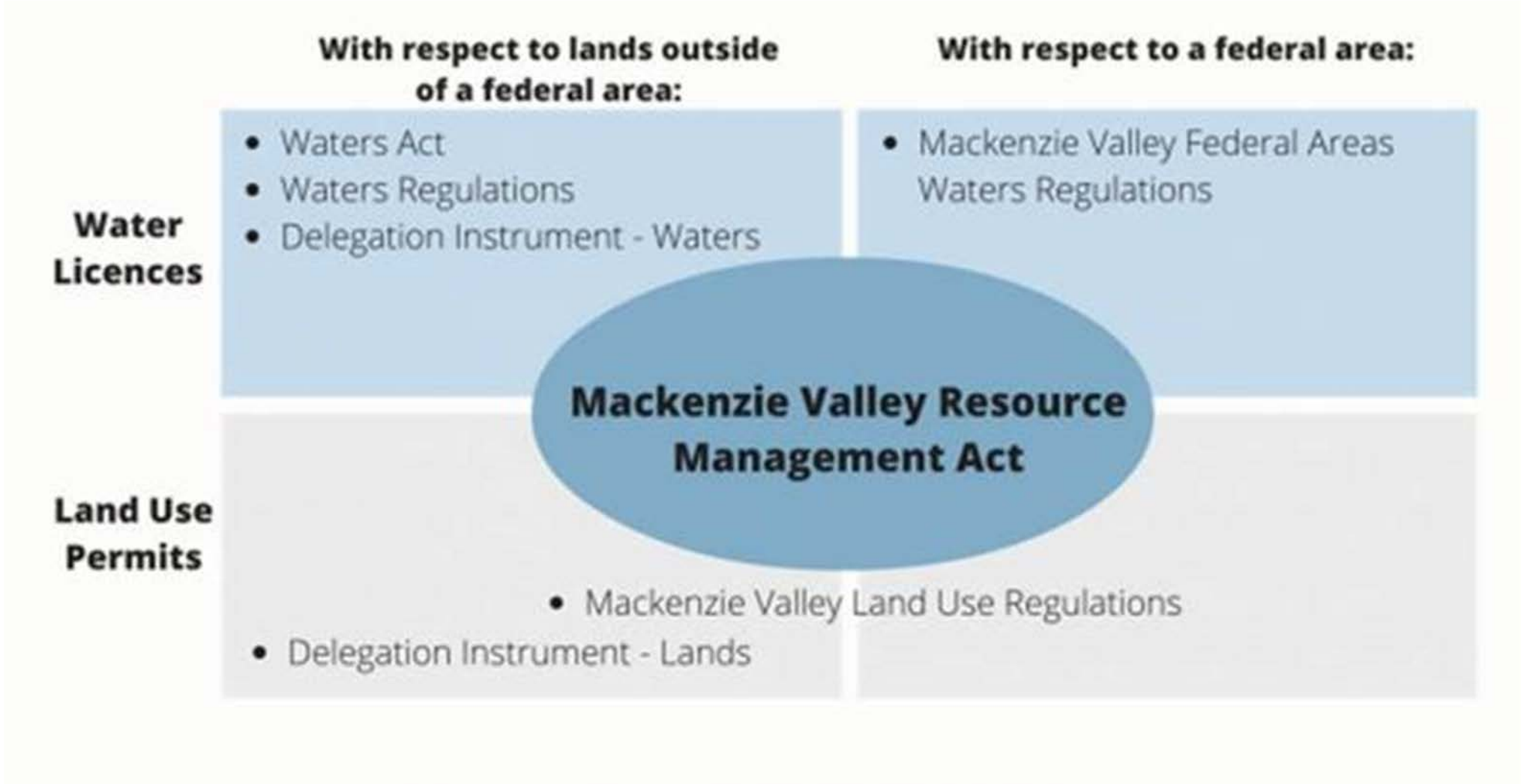
- Provide for the conservation, development and utilization of land and water resources in a manner that will provide optimum benefit
- Must consider the importance of conservation to well-being and way of life to Aboriginal peoples
- Traditional knowledge and scientific information

What the Land and Water Boards Do

Land and Water Boards of the Mackenzie Valley

- Conduct Preliminary Screenings
- Ensure decisions are made in accordance with approved Land Use Plans
- Regulate the use land and water and the deposit of waste

The Legislative Framework



When do you need a Land Use Permit?

Land and Water Boards of the Mackenzie Valley

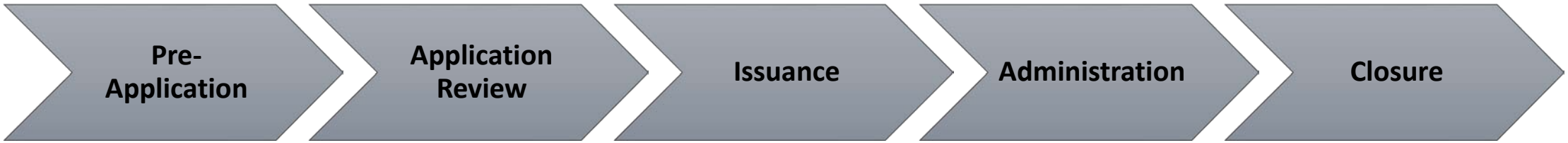
When do you need a Water Licence?

Land and Water Boards of the Mackenzie Valley

The Regulatory Process

(for Land Use Permits and Water Licences)

Land and Water Boards of the Mackenzie Valley



Pre-Application

Land Use Permit	Water Licence
Contact Land and Water Board staff	
Engagement – contact affected parties and seek feedback	
Collect necessary site and/or baseline information	
Right of Access – obtain permission from landowner	N/A

Application Review

Land Use Permit	Water Licence
Application deemed complete	
Application sent out for review and comment	
Preliminary Screening (1st level of EIA)	
Public hearing unlikely	Public hearing possible (required for Type A)
<42 days for Board decision	New: Nine (9) months *does not include proponent time

Issuance

Land Use Permit	Water Licence
They will include conditions to minimize impacts:	
Methods & Timing	Studies/Reports/Plans
Protection of habitat, historic/ archaeological/burial sites	Monitoring / Effluent Quality Criteria (EQC)
Closure and Reclamation	
Security Deposits	
Term up to 5 years	New: Term up to life of project

Administration

Land Use Permit	Water Licence
Compliance enforced by Inspectors (Canada / New: GNWT)	
Amendments and renewals possible	
Management plans: review and approval	
Ongoing reporting of activities	

Administration

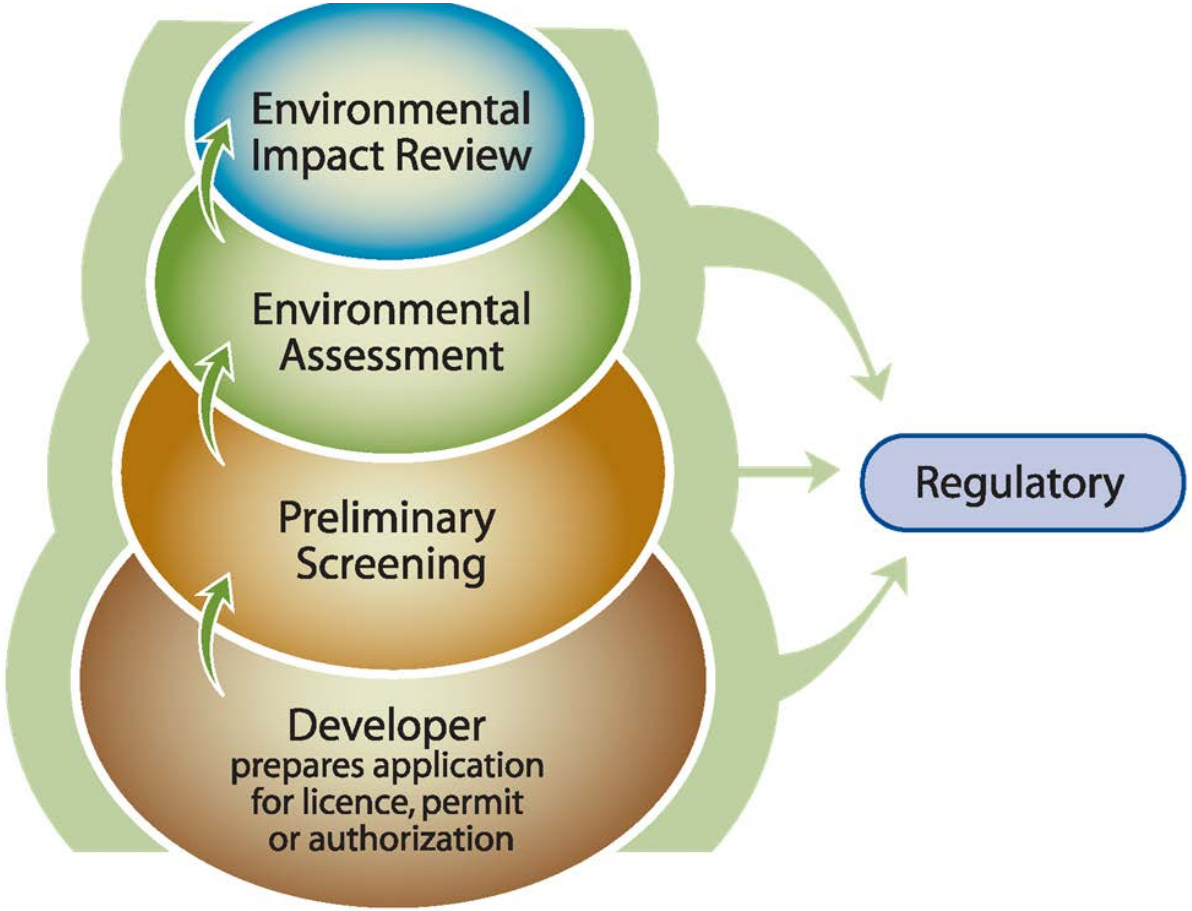
Land Use Permit	Water Licence
Compliance enforced by Inspectors (Canada / New: GNWT)	
Amendments and renewals possible	
Management plans: review and approval	
Ongoing reporting of activities	

Closure

Land Use Permit	Water Licence
Final plan required for relinquishment of liability and refund of security	Preliminary, interim and final Closure and Reclamation Plans may be necessary
MVLURs (S. 32)	WA (S. 35) and MVRMA (S. 72.11)

Environmental Impact Assessment Overview

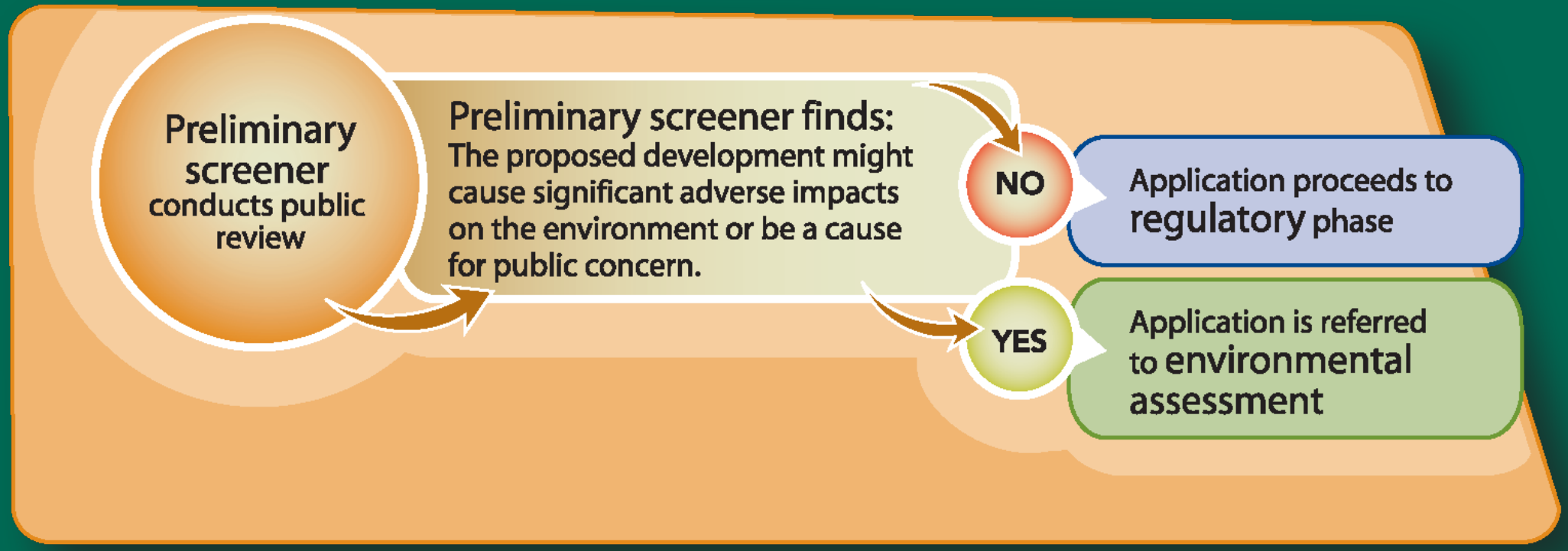
Land and Water Boards of the Mackenzie Valley



Stage 1: Screening by LWB Staff

Land and Water Boards of the Mackenzie Valley

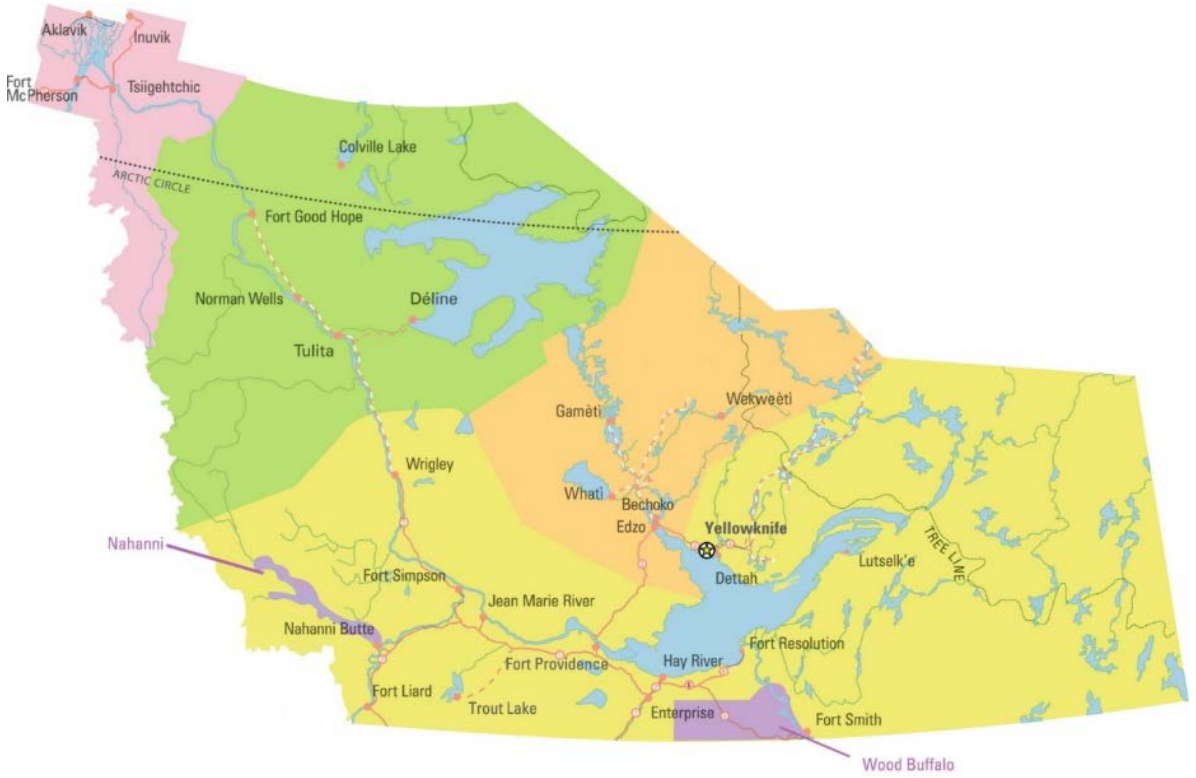
Preliminary Screening



Stage 2 & 3: Environmental Assessment

- After a development proposal is screened, it may be referred to environmental assessment
- Others can refer projects to EA
- The Review Board:
  - Conducts environmental assessments
  - Conducts environmental impact reviews

Land and Water Boards of the Mackenzie Valley



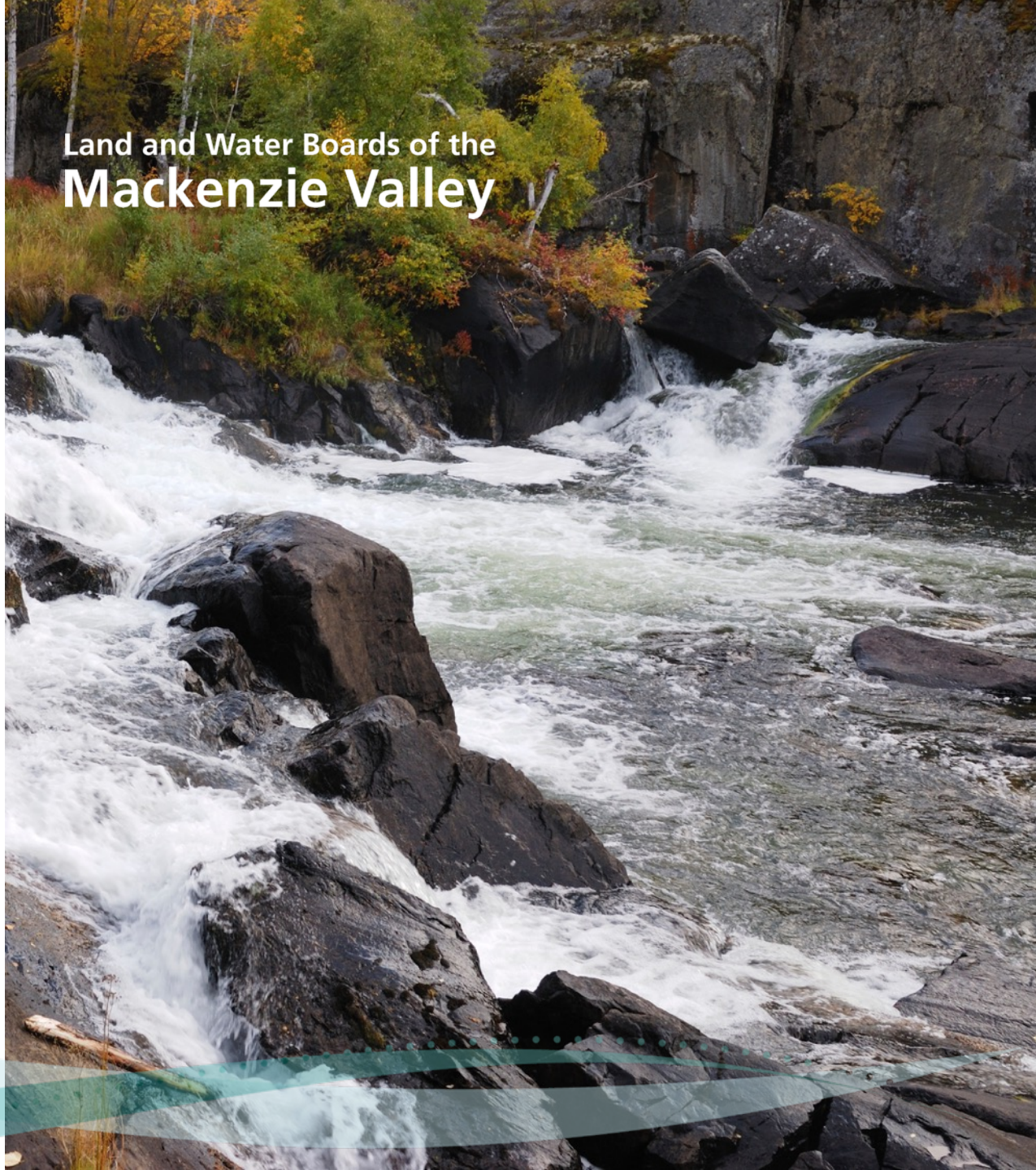
Land and Water Boards of the
Mackenzie Valley

Boards' Process

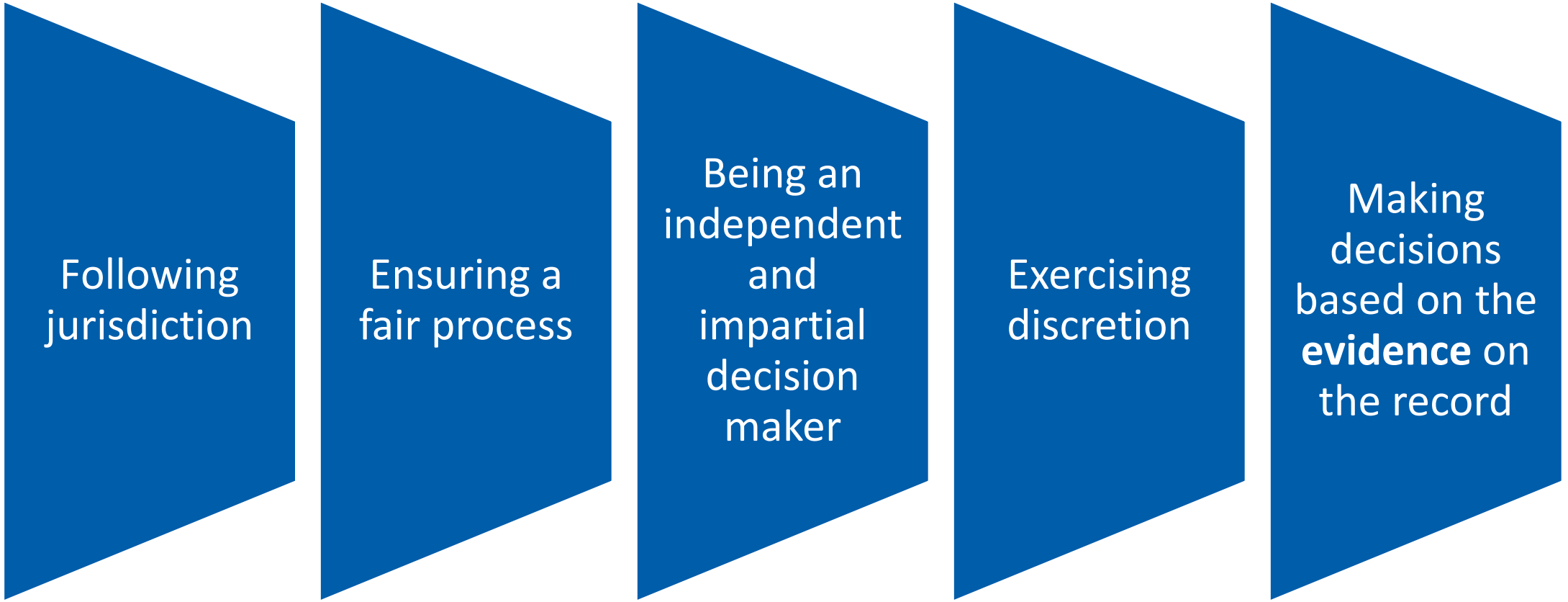
- Work with proponents and affected parties
- Public review of applications/submissions
- Technical session, workshops, community meetings, public hearings
- Considers Traditional Knowledge and scientific evidence
- Make a decision

How Boards' Work

- Evidence on the record
- Term of authorization
- Conditions
- Reporting requirements (e.g., Annual, SNP)
- Monitoring requirements (e.g., SNP, AEMP)
- Enforcement

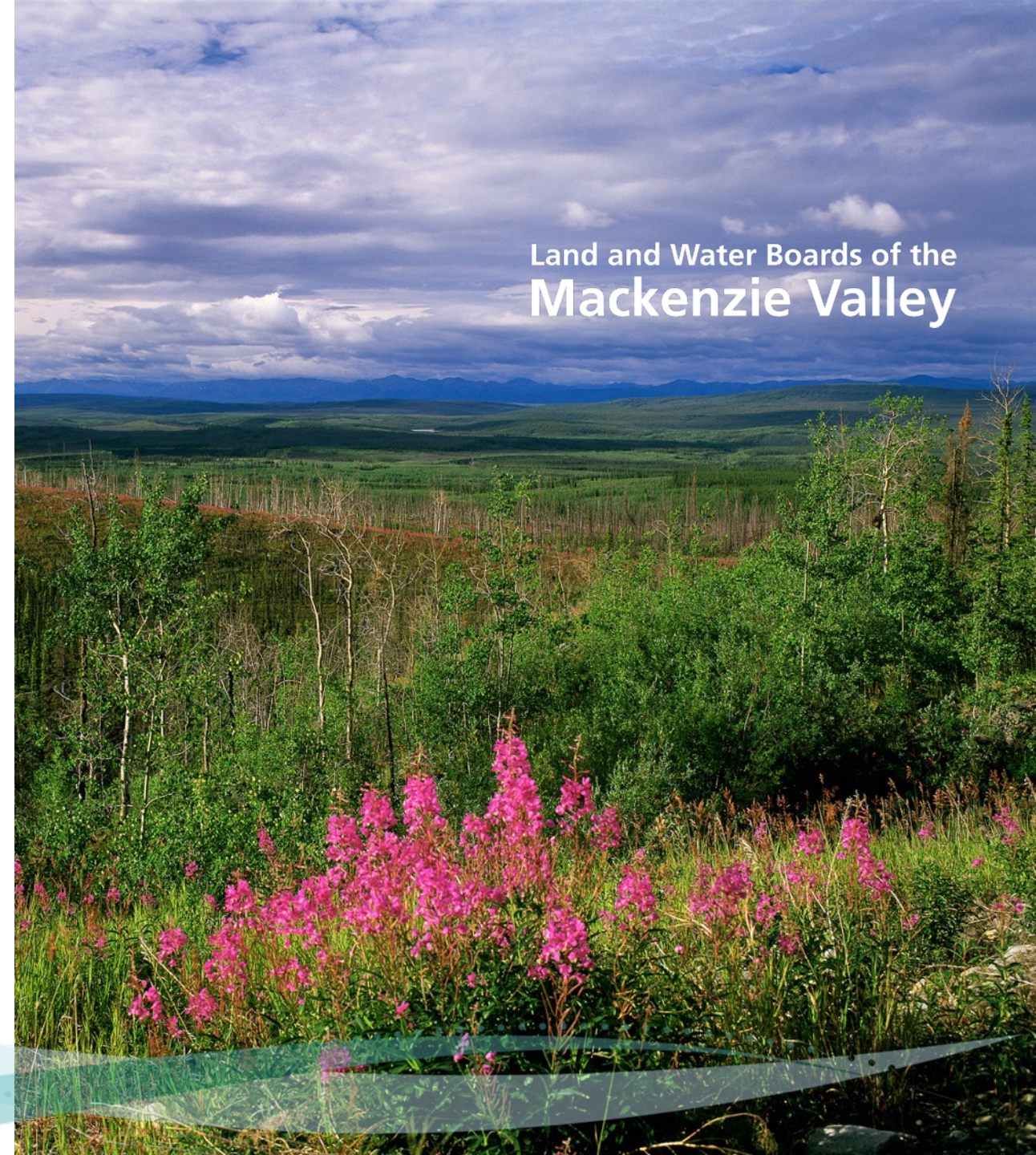


Principles for Administrative/Quasi-Judicial Tribunals



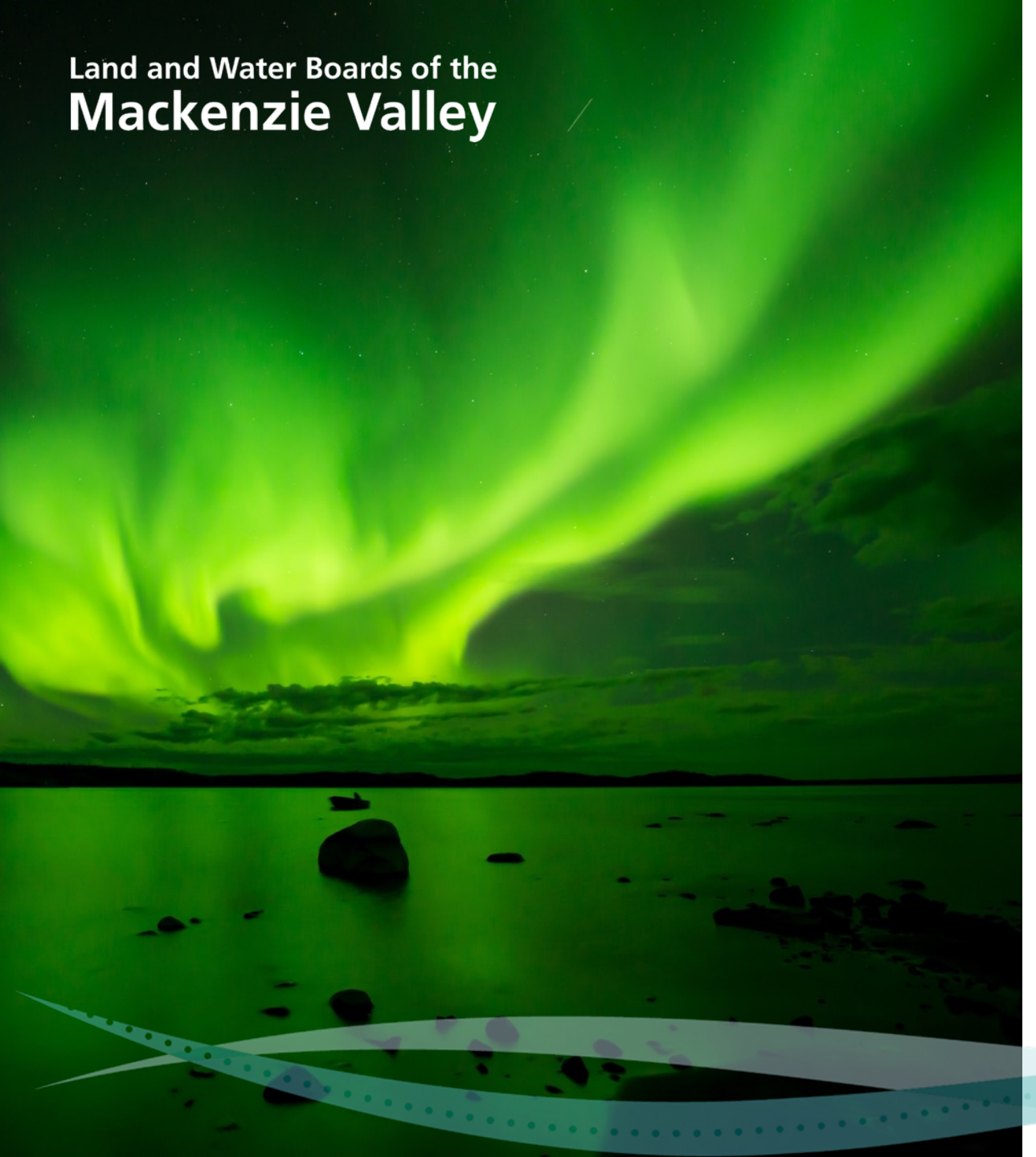
MVRMA Amendments

- Timelines*
- Life of Project Licence
- Development Certificates
- Acting after expiry of term
- Administrative Monetary Penalties
- 10 – day Pause Period – Preliminary Screening
- Regional Studies
- Cost Recovery
- Consultation Regulations



Timelines – without extensions

Process	LWB / Review Board Time	Ministerial Time	Total Time
Permit	10 days check, 42 days review	n/a	52 days
Licensing with a public hearing	9 months	45 days	10.5 months
Environmental Assessment, no hearing	9 Months	3 Months	12 Months
Environmental Assessment with hearing	16 Months	5 Months	21 Months
Environmental Impact Review	18 Months	6 Months	24 Months

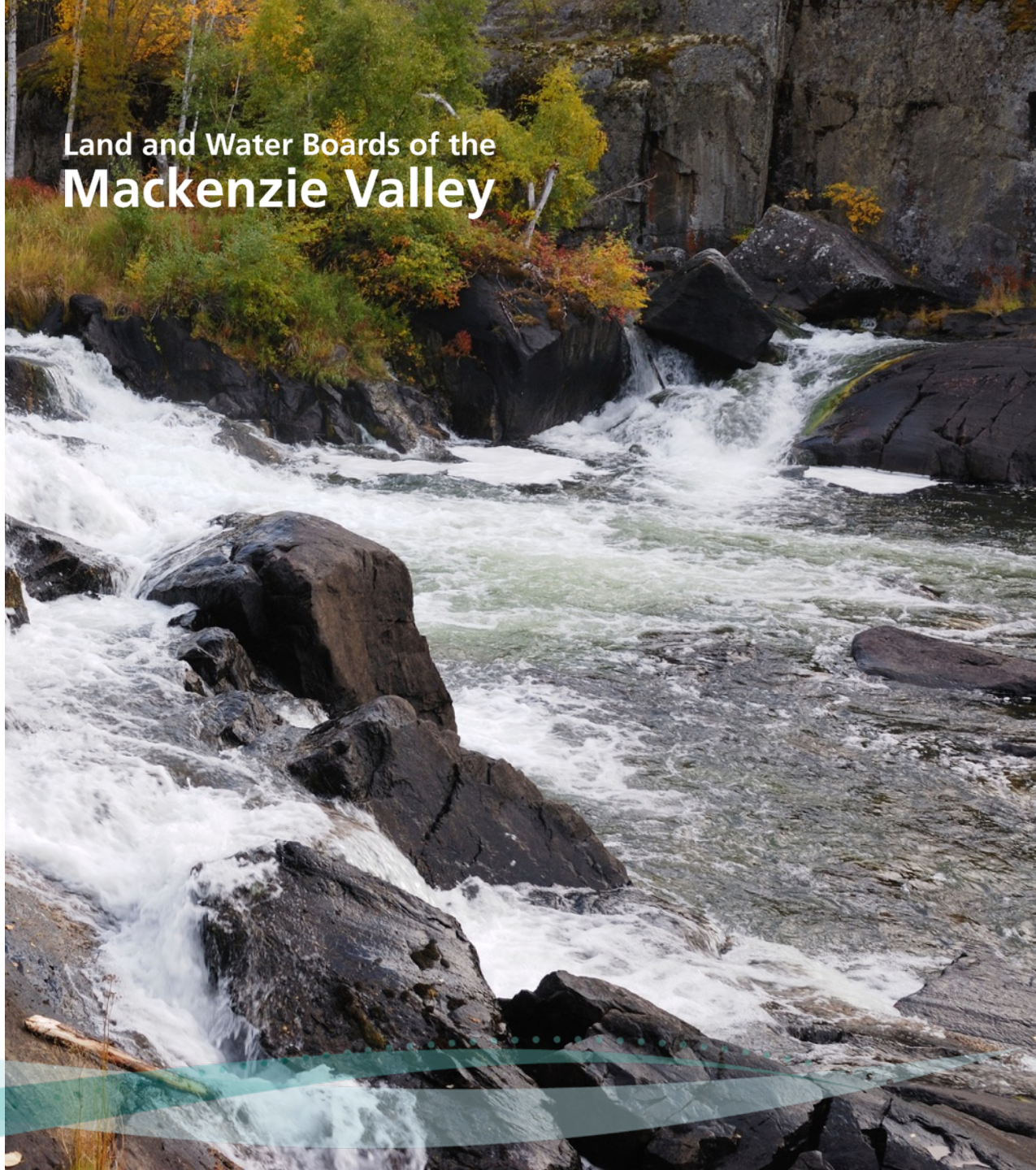


Meeting the Challenges

- Areas without Land Claims
- Capacity to participate
- Lack of Land Use Plans
- Cumulative effects
- Uncertainty around declining Caribou Herds
- Regulatory gaps – federal and territorial
- Free entry system for mineral exploration
- Enforcement Capacity

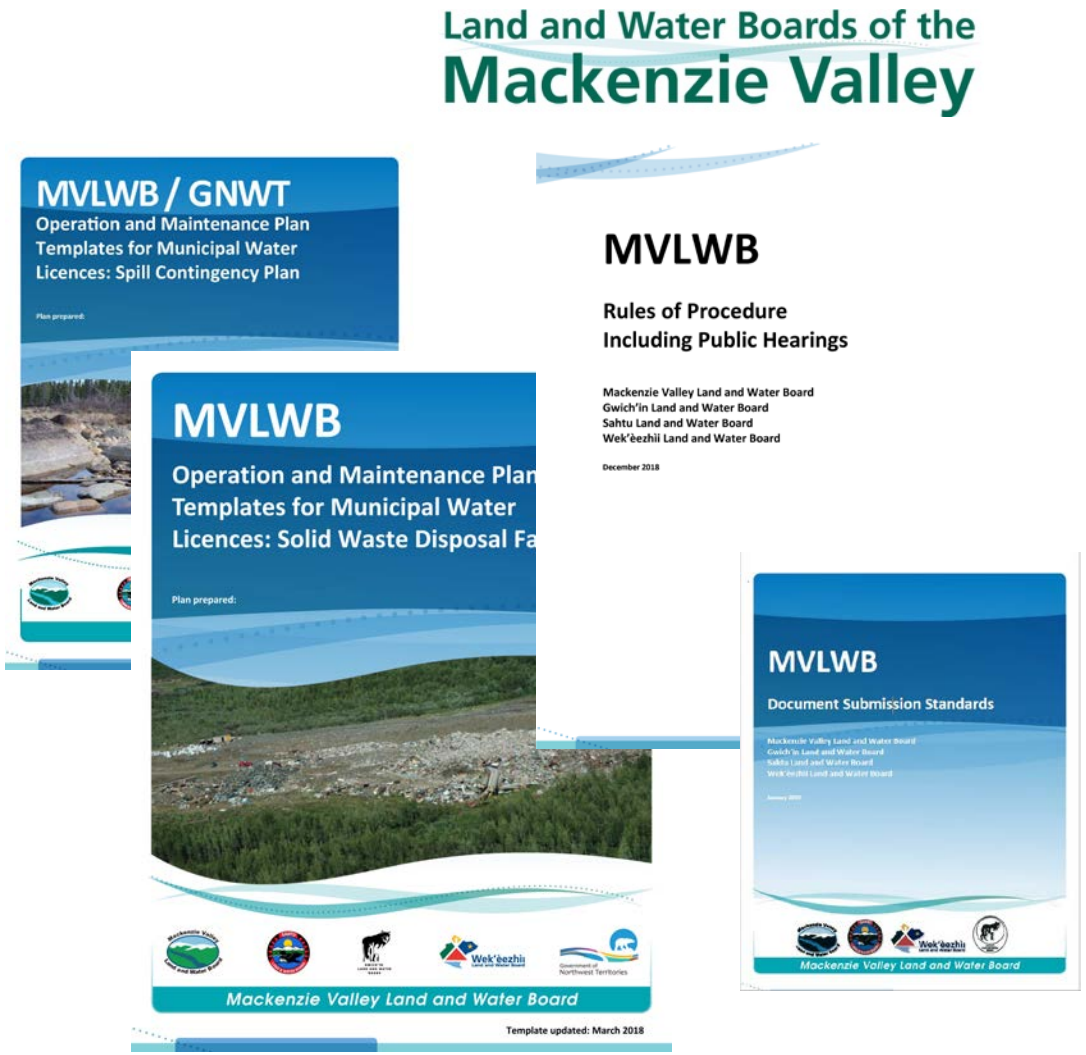
Key Strengths

- **MVRMA – Rooted in Claims**
- Ensure **protection of the environment** from significant adverse impacts of projects
- Considers economic, social and cultural **well-being of residents**
- Including the recognition of **Indigenous rights and traditional way of life**
- More **decision makers from the region**
- Reduces (or eliminates) **cross- cultural** dynamic during proceedings



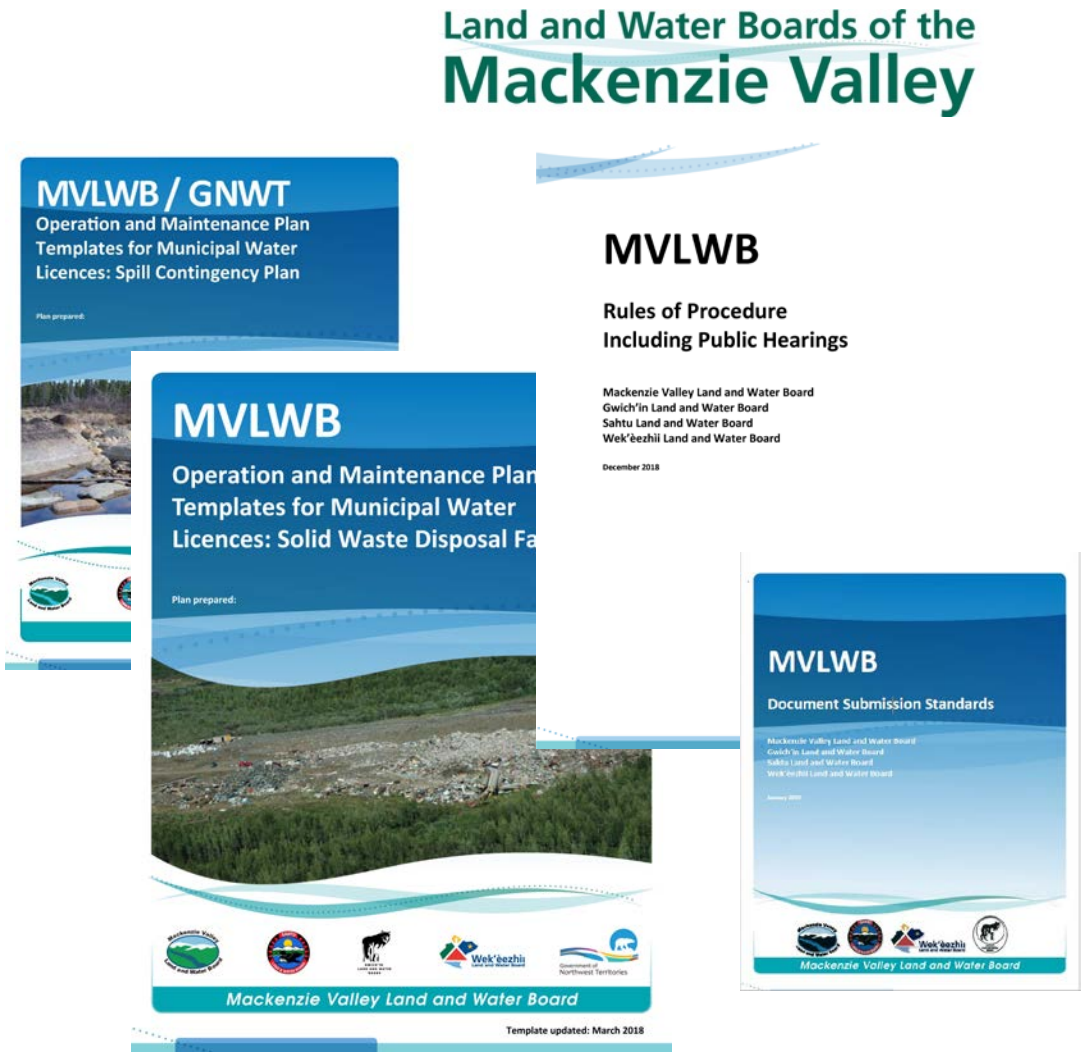
Tools for Success

- Engagement and Consultation
- Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits
- Guide to the Water Licence Process
- Guide to Land Use Permitting Process
- Standard Land Use Permit Template
- Document Submission Standards



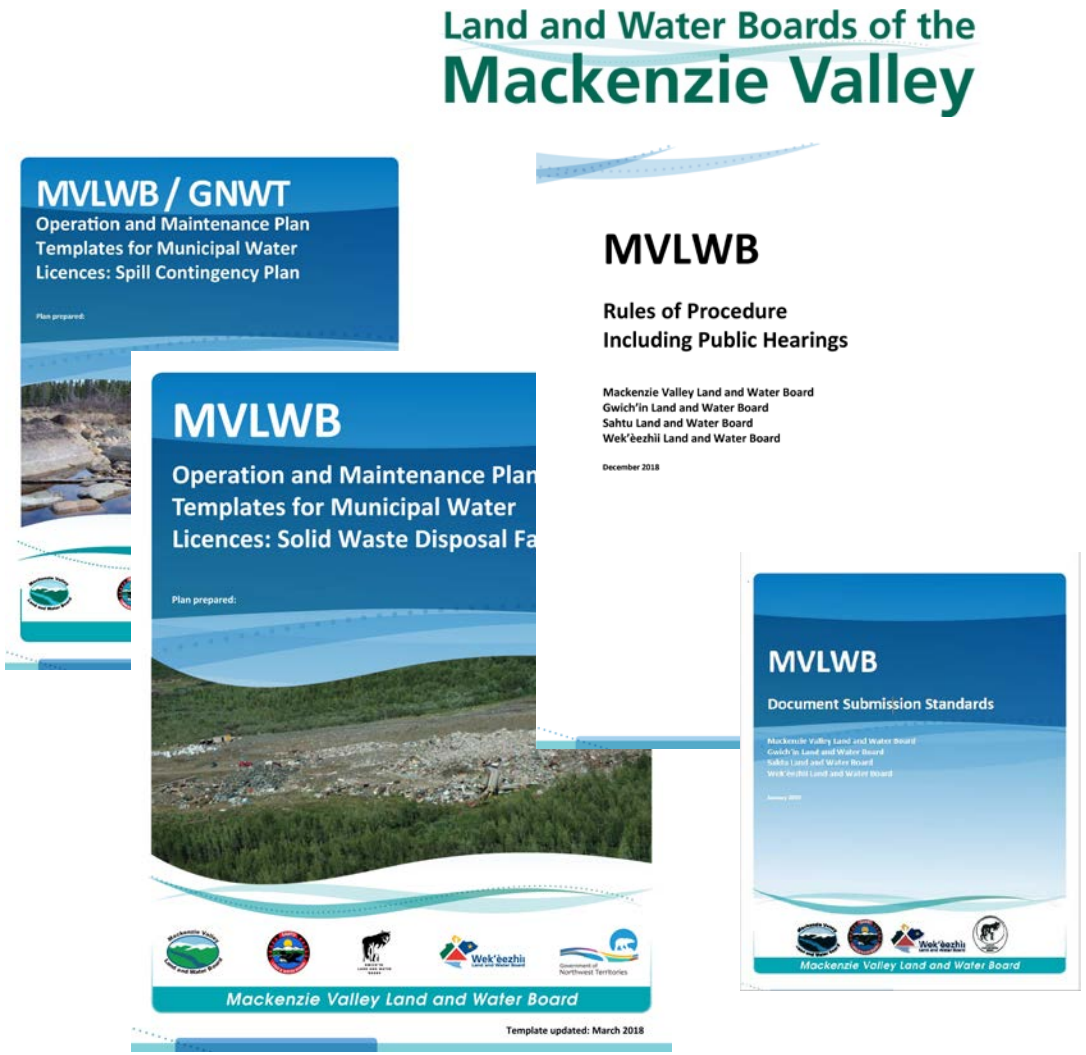
Tools for Success

- Water and Effluent Quality Management Policy
- Guidelines for Effluent Mixing Zones
- Guidelines for Aquatic Effects Monitoring Programs
- Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories
- Guidelines for Closure and Reclamation Cost Estimates for Mines



Tools for Success

- Guidelines for Developing a Waste Management Plan
- Standard Outline for Management Plans
- Municipal O&M Templates
  - Water Treatment Plant
  - Solid Waste Disposal Facility
  - Spill Contingency Plan
  - Water Licence Questionnaire
- Guideline for GIS Submissions



Márs̀ı | Kinanāskomitin | Thank you | Merci | Hąį’ | Quana | Qujannamiik | Quyanainni | Máhsı | Máhsı | Mahsì

Land and Water Boards of the Mackenzie Valley

Contact Information

Land and Water Boards of the Mackenzie Valley

Mackenzie Valley Land and Water Board
P.O Box 2130
4922 - 48th Street
7th Floor YK Centre Mall
Yellowknife, NT. X1A 2P6
Main office: (867) 669-0506

Community Outreach Coordinator: Tanya Lantz, tlantz@mvlwb.com

Mineral Exploration – An Industry Perspective

For Mackenzie Valley Operational Dialogue

By: Gary Vivian, Chair of Aurora Geosciences and Past President of the NWT & Nunavut Chamber of Mines

March 10, 2020

Key Messages

- Industry is here at invitation from governments
- To generate benefits
- NWT exploration is the most critical initiative to sustain mining benefits
- MVRMA reboot – it can't just be about environmental protection. We need to also ask about the social and economic well being of all northerners
- Current economic situation – current industry situation (production forecasts and exploration investments along with federal government philosophy). We need to change the landscape. Investment is sorely lacking. The change may come with baby steps but our mineral resources are our strength.

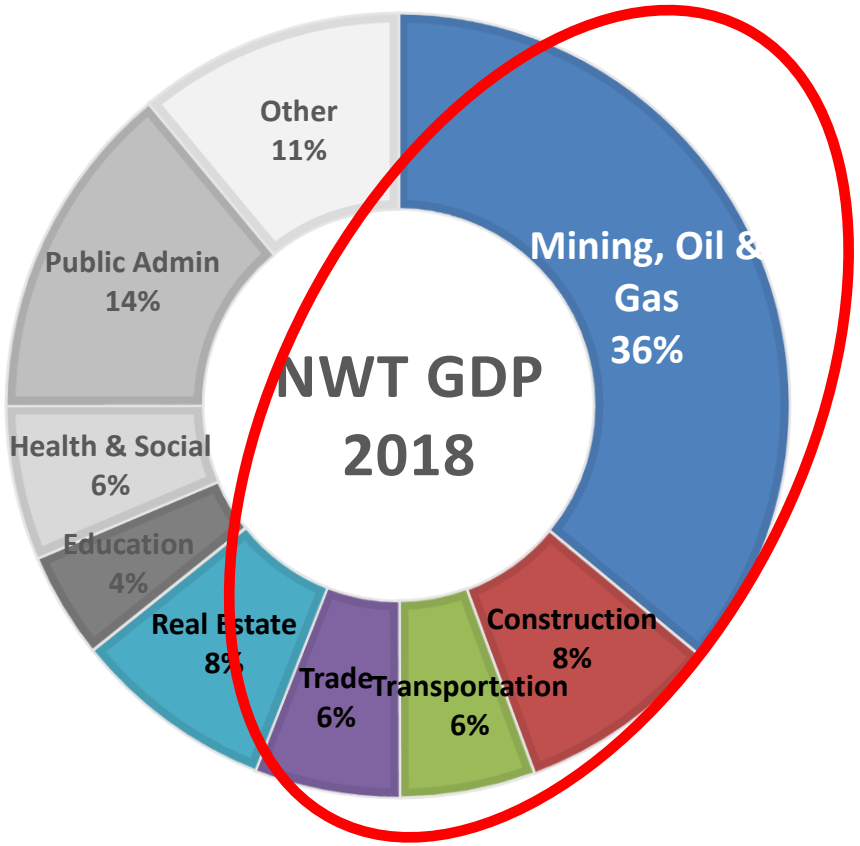
NWT & NUNAVUT CHAMBER OF MINES

A reminder: Why is Industry here?

- To do what governments cannot do
  - Convert rock into benefits – training, jobs, business spending, tax revenues
  - Assume the high risk of exploration, mining and the markets
  - Bring considerable public and private investment money to do the job, not from government
  - Bring expertise to share and build capacity, wealth and benefits
- Industry is doing a fine job, but … it can't do this alone
- Industry needs collaboration and support from all governments – NWT, Federal & Indigenous – in order to maximize resource success, industry needs access to land and regulatory certainty

NWT & NUNAVUT CHAMBER OF MINES

We have done well so far:
NWT's largest private sector economic contributor



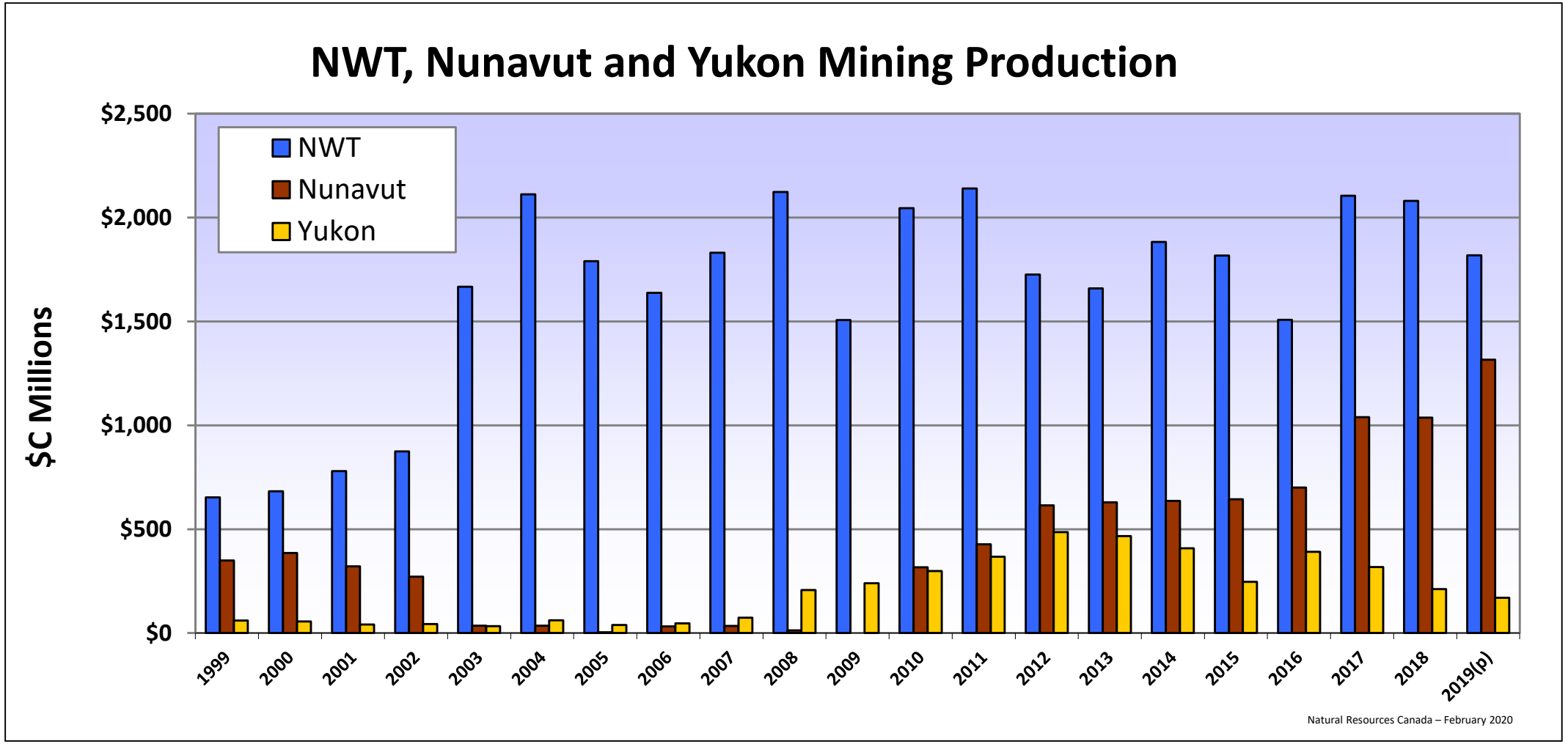
"Over the past 3 years, diamond mines contributed 41% of the GNWT's corporate income, fuel, property and payroll tax revenue"

… GNWT Spokesperson

- The largest <u>direct</u> private sector contributor to NWT economy
- And even larger with <u>indirect</u> contributions to other sectors, eg, construction, transportation, etc.
- Tourism, fishing, etc. fits within the smaller slices of the GDP pie

NWT & NUNAVUT CHAMBER OF MINES

Diamond mining has created game changing value



- NWT is third most valuable diamond miner in the world

NWT & NUNAVUT CHAMBER OF MINES

Diamond production value has been turned into significant benefits

(Chamber of mines data since 1996)

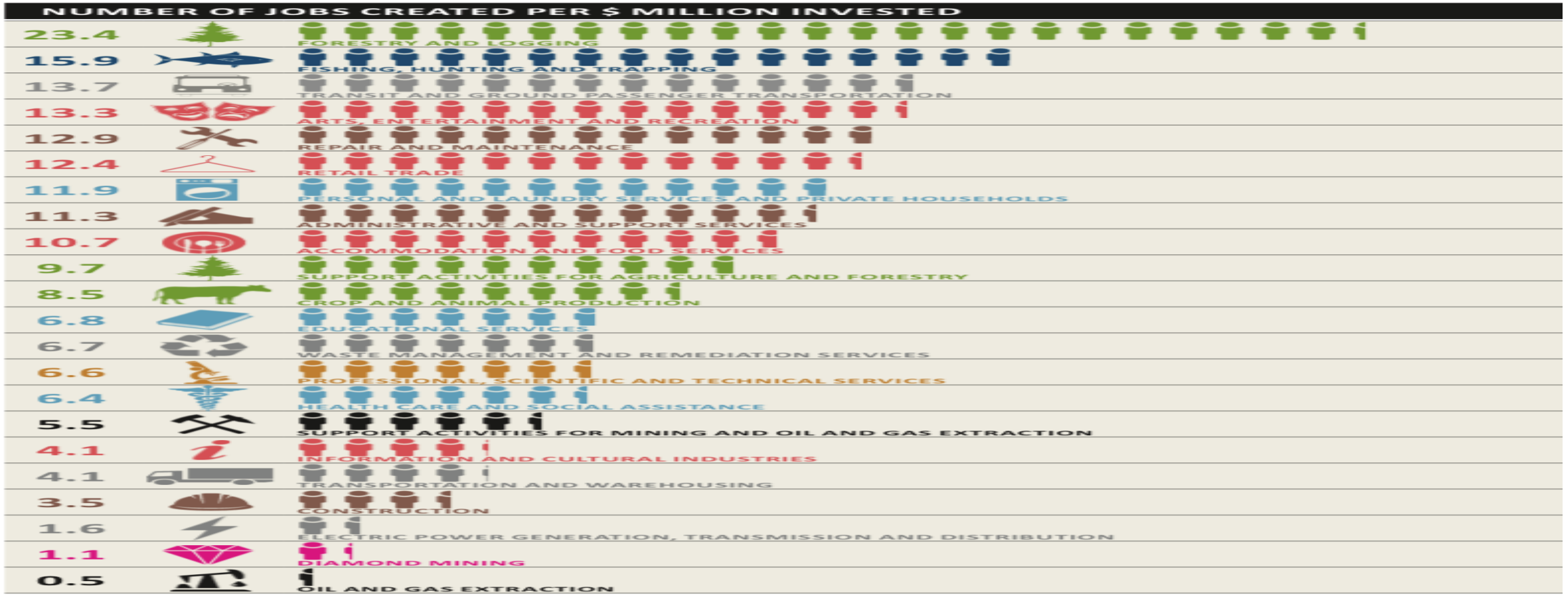
- 61,495 person-years of employment
  - 48% northern/52% southern/24% Indigenous
  - 1,540 northern workforce
- $21 billion in business
  - $14.6 billion northern (69%) of which $6.3 billion is Indigenous
- Well over $200 million to communities in IBA payments, scholarships, donations, & community wellness projects
- Billions in various taxes & royalties to governments (public and Indigenous)

Det'on Cho mining business example

- **Approximate YKDFN employment**
  - 100 members are employed directly by the mines and another 100 members indirectly (through companies such as DCC, etc.)
- **Det'on Cho Corporation employment**
  - DCC has approximately 220 direct employees with an additional 660 workers through partnerships and JVs (Approximately 70% NWT residents)
- **Bouwa Whee Catering**
  - 160 employees, 90% are NWT residents, 50% are Indigenous
- **Det'on Cho Corporation contribution to local economy**
  - Average wage $90,000+ / year (higher than National avg)
  - $54M in wages ($90K * 600) spent in local economy
  - Transfer payment: $17,650,000 (600 * $29,431)

Data courtesy Det'on Cho Corporation

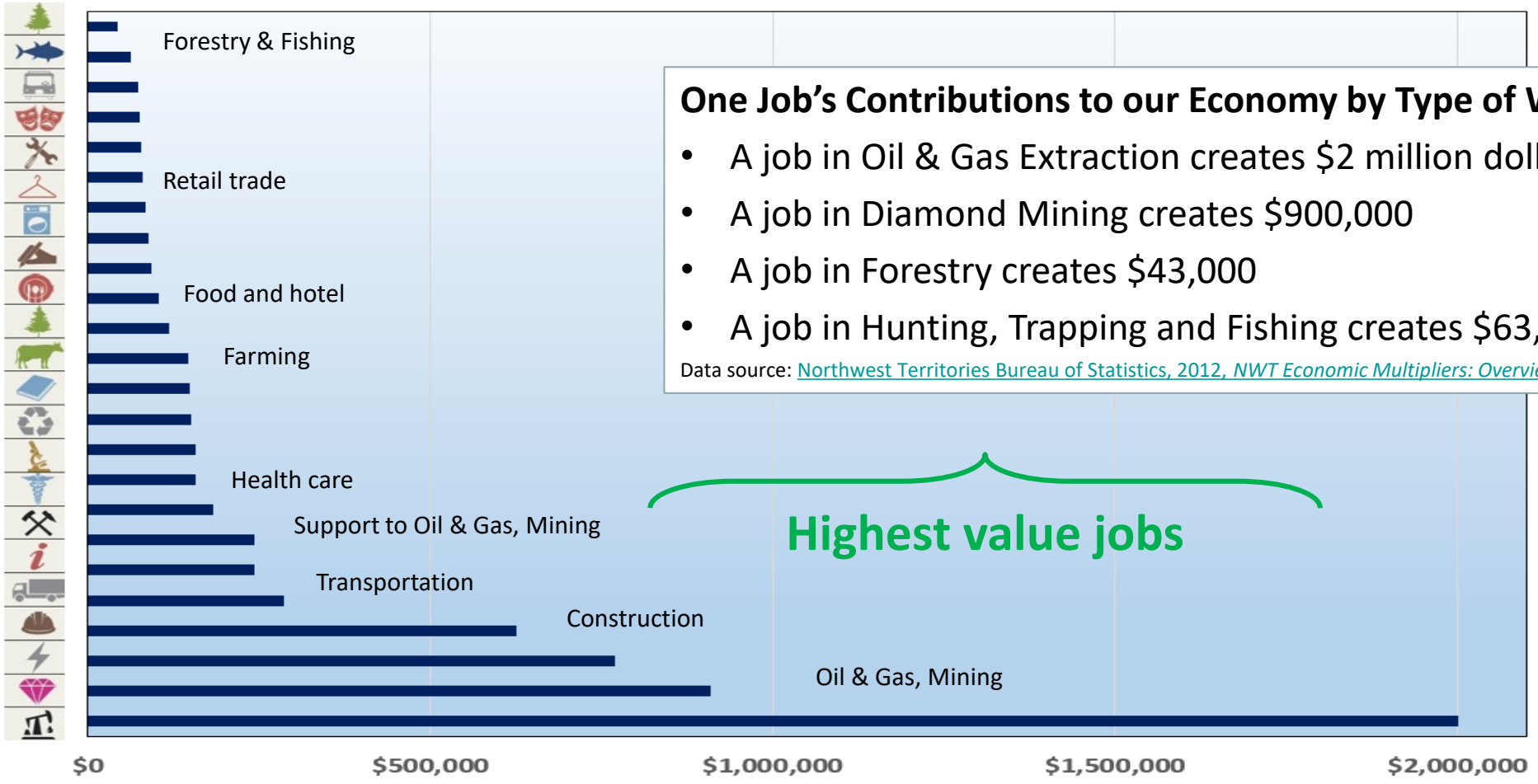
Alternatives North perspective on the economic multiplier



Note: For a complete list of economic multipliers in the NWT, see Appendix A in the full report.
Source: Northwest Territories Bureau of Statistics, 2012, *NWT Economic Multipliers: Overview and Results*

NWT & NUNAVUT CHAMBER OF MINES

Mining and Oil & Gas provide highest value per job



One Job's Contributions to our Economy by Type of Work:

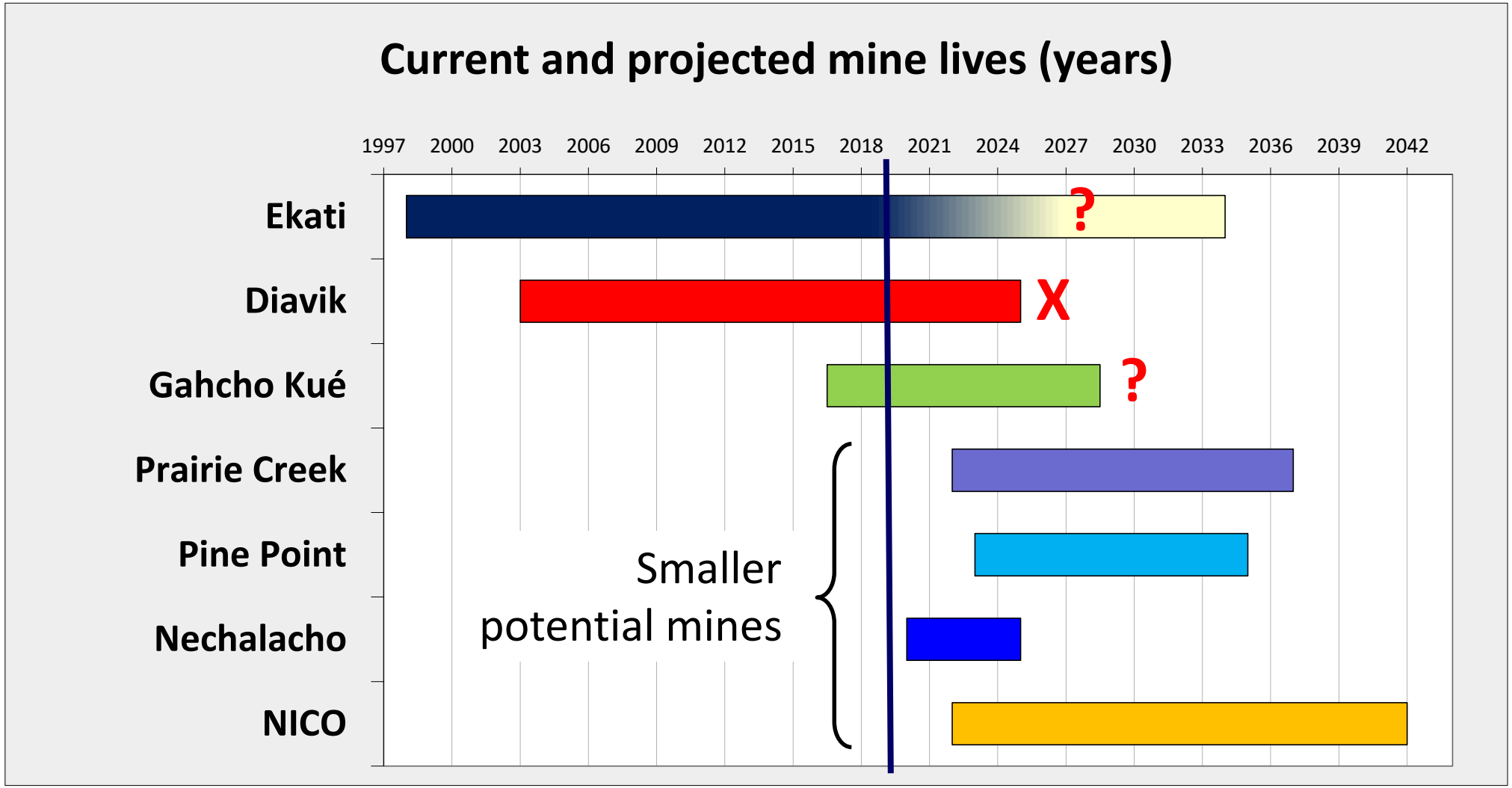
- A job in Oil & Gas Extraction creates $2 million dollars value
- A job in Diamond Mining creates $900,000
- A job in Forestry creates $43,000
- A job in Hunting, Trapping and Fishing creates $63,000

Data source: Northwest Territories Bureau of Statistics, 2012, *NWT Economic Multipliers: Overview and Results*

Highest value jobs

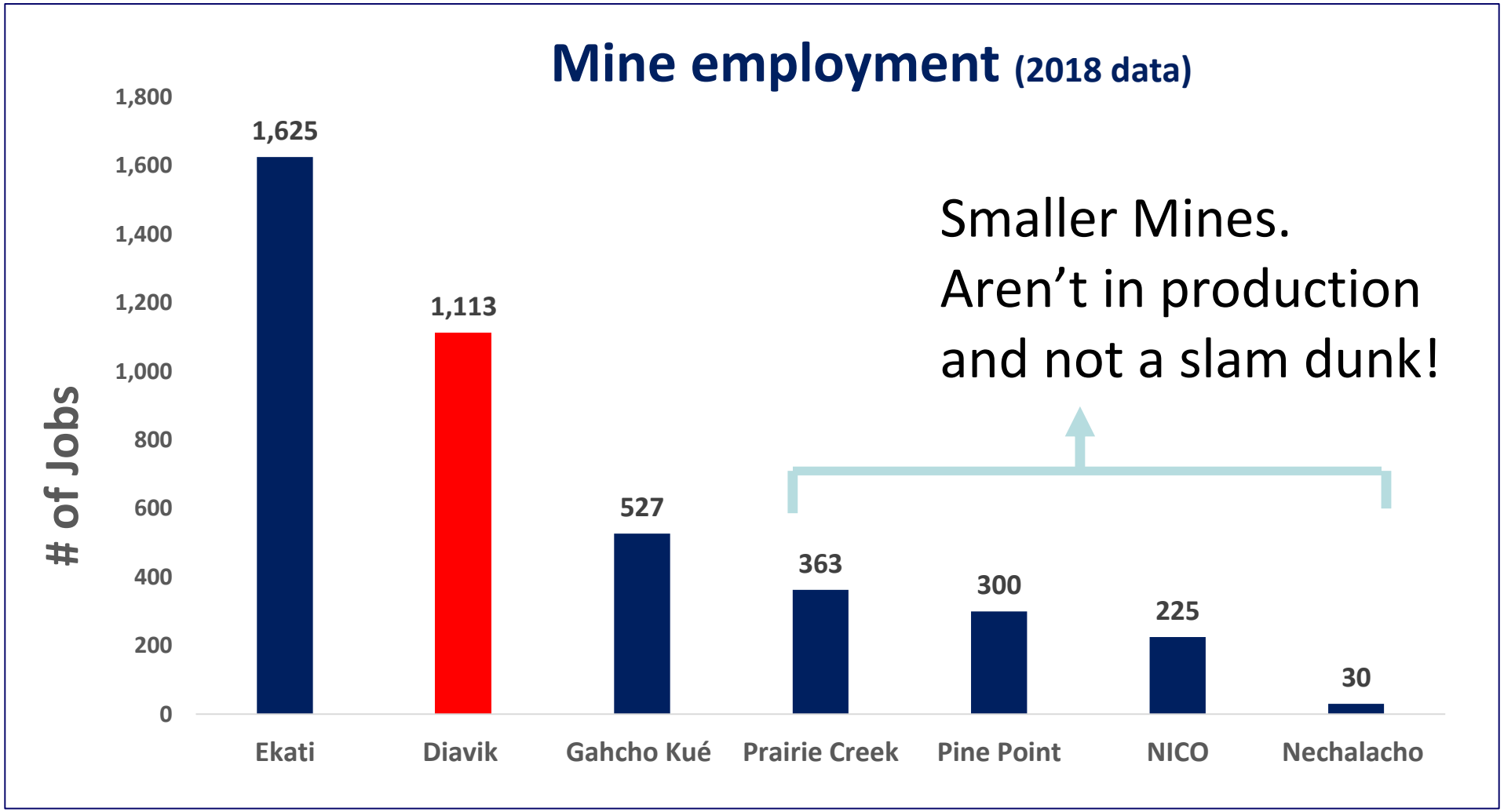
NWT & NUNAVUT CHAMBER OF MINES

NWT has some proposed new mines in the wings



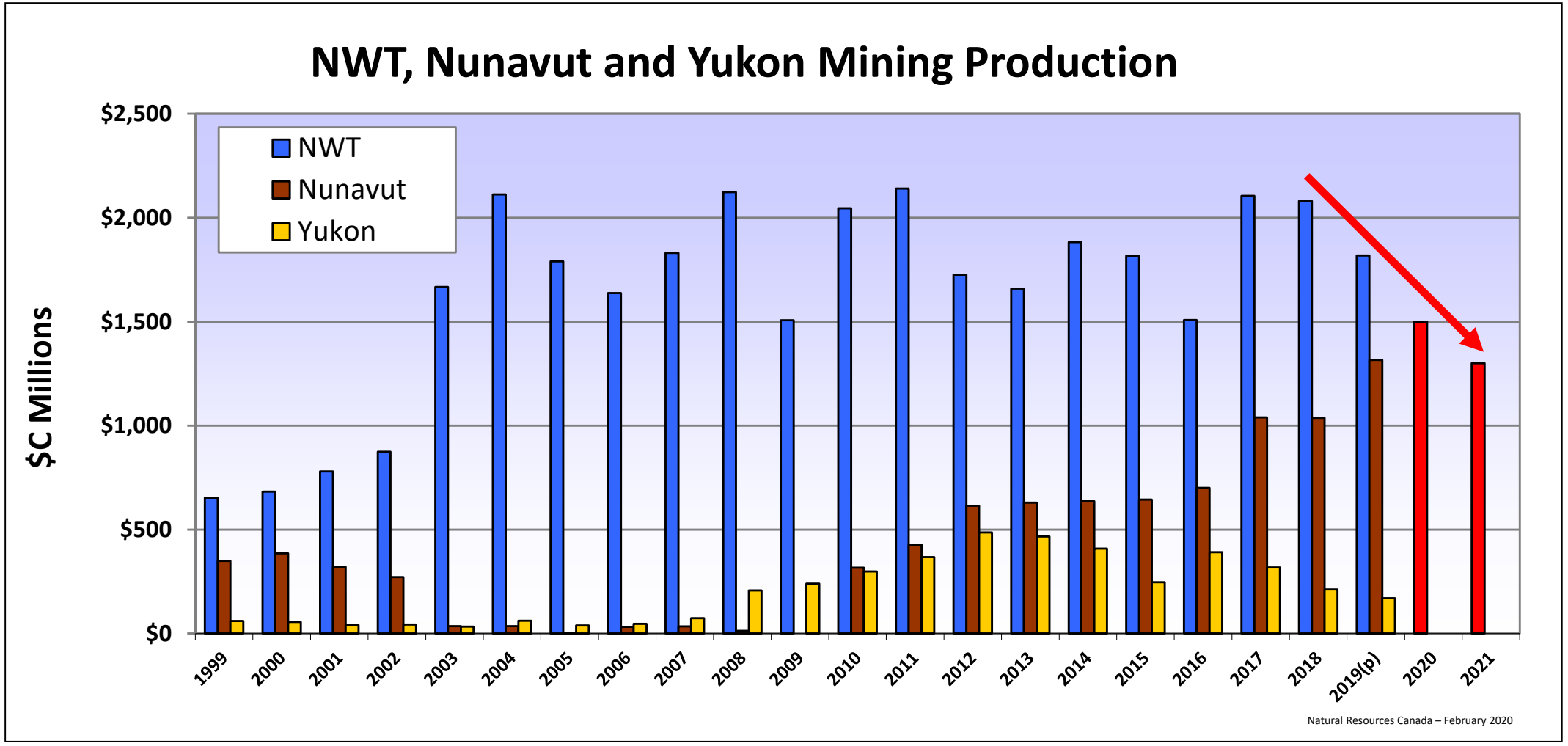
NWT & NUNAVUT CHAMBER OF MINES

But … not enough new mines to replace diamond benefits



NWT & NUNAVUT CHAMBER OF MINES

Not enough new mines to sustain mining benefits



- Production will decline in coming years and affect all NWT (future years are conceptual)

NWT & NUNAVUT CHAMBER OF MINES

Economic projections not healthy

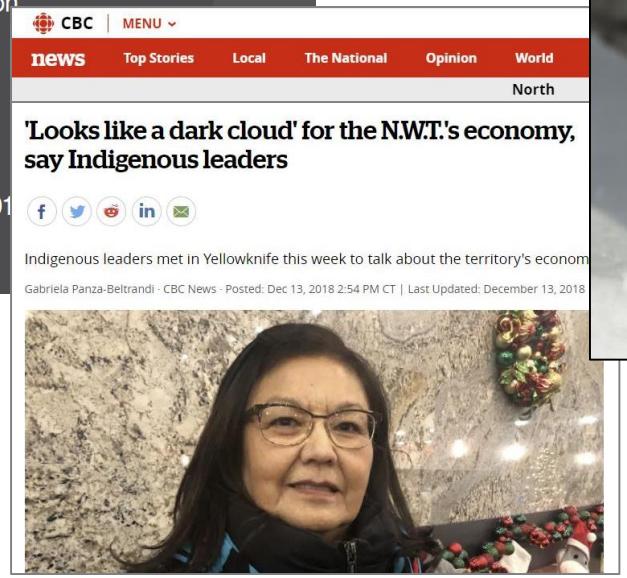
The Conference Board of Canada | Le Conference Board du Canada

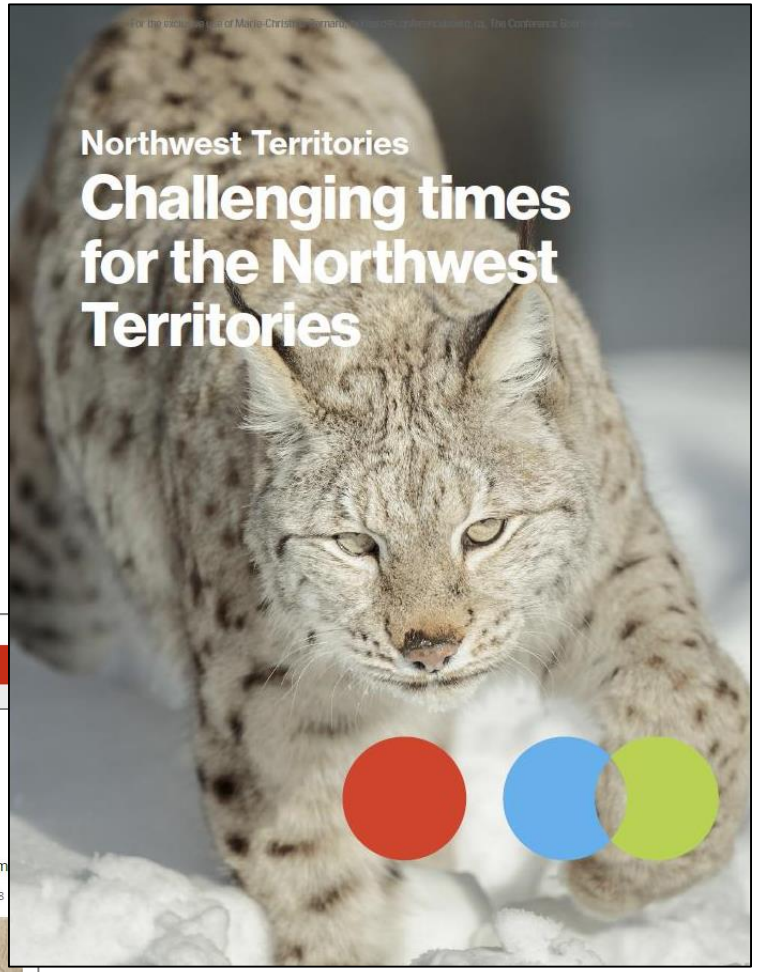
NORTHWEST TERRITORIES

Economic Prospects Grim

Chapter Summary

- Peak diamond production has passed in the Northwest Territories. Diamond production will begin to fall, and all three operating mines will close by 2035.
- Two new metal mines will open in the next five years, but that will not make up for the decline in diamond production, leaving mining output to fall for most of the next 23 years.
- Almost all sectors of the territory's economy will suffer as a result of declining diamond production. Employment will contract, resulting in higher outmigration and unemployment.
- As a percentage of the territorial population, the number of seniors will triple by 2040, putting pressure on the government's finances.
- Real economic growth will contract by 2.9 per cent this year and be flat in 201 before falling for most of the rest of the forecast period.

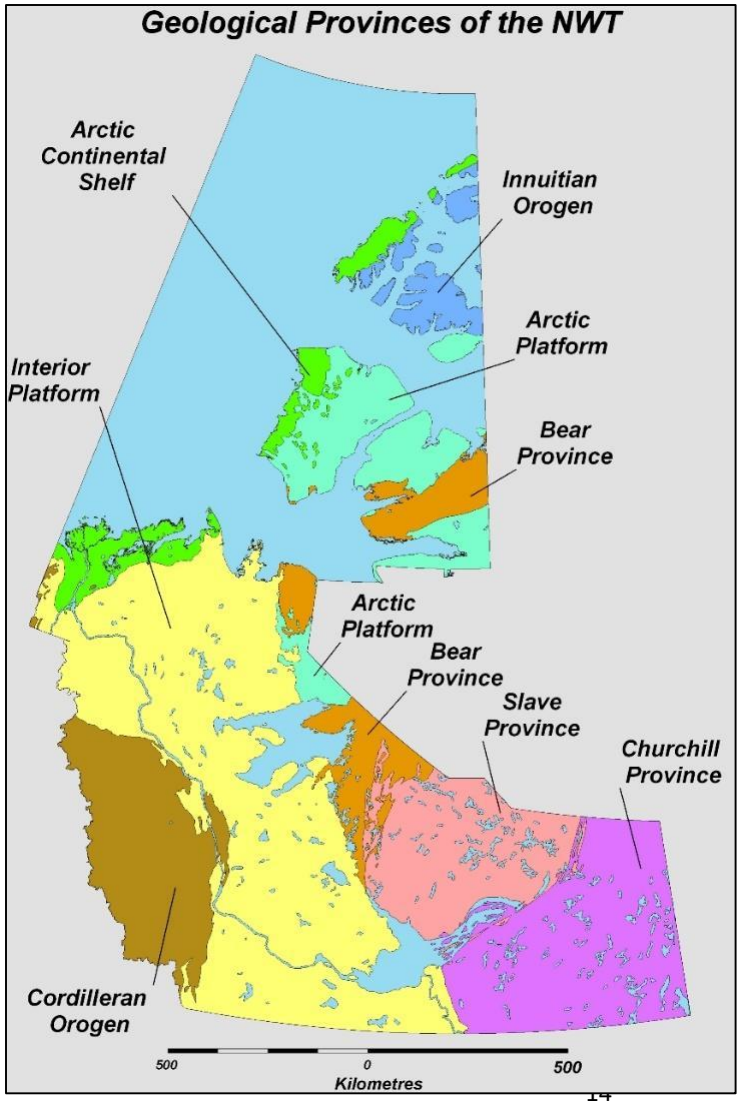




Conference Board of Canada,
Territorial Outlook Economic Forecast, Summer 2019

Exploration finds new mines:
We have fantastic untapped mineral potential

- 8 geological provinces
- Diverse mineralogy
  - Gold, silver, diamonds, lead, zinc, uranium, tungsten, rare earths, cobalt, bismuth, nickel, copper, iron, etc.
- Under-mapped and remote means under-explored
- This equals tremendous mining opportunity

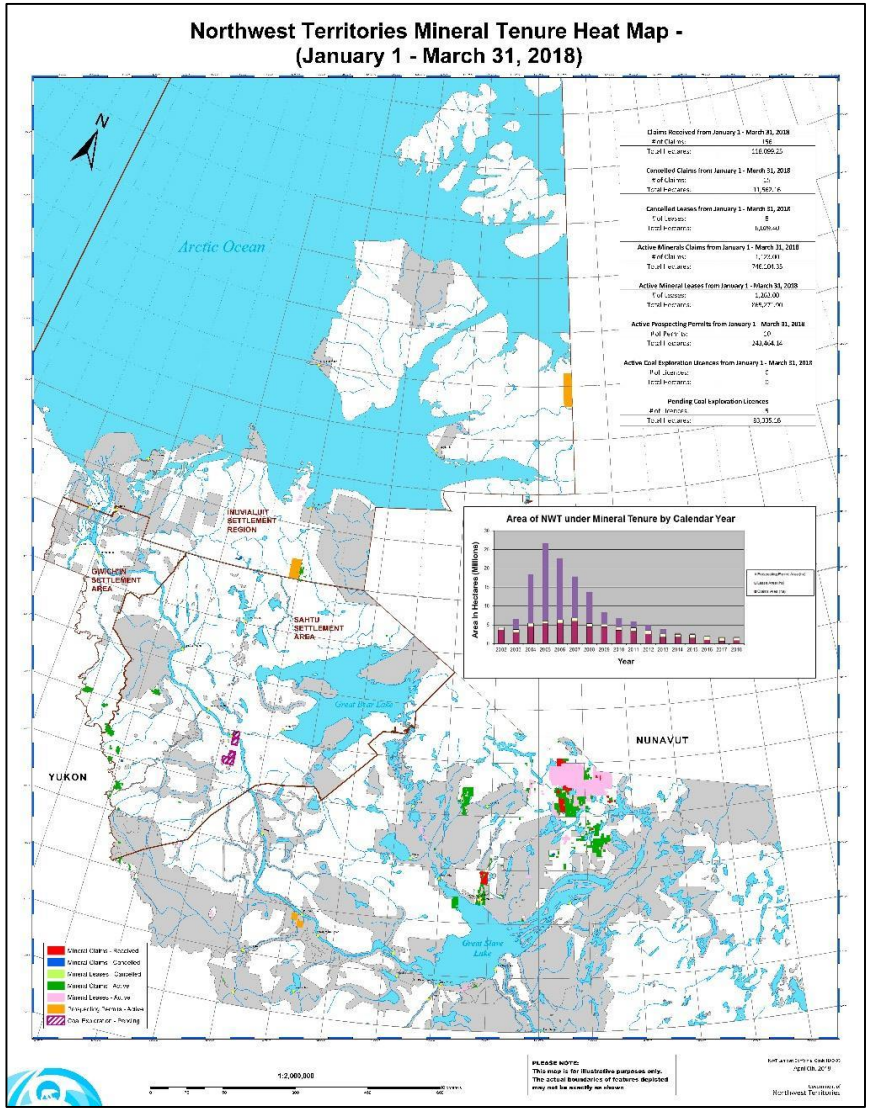


Myth: We have found it all!

NWT & NUNAVUT CHAMBER OF MINES

But, we've closed over 30% of the NWT to exploration

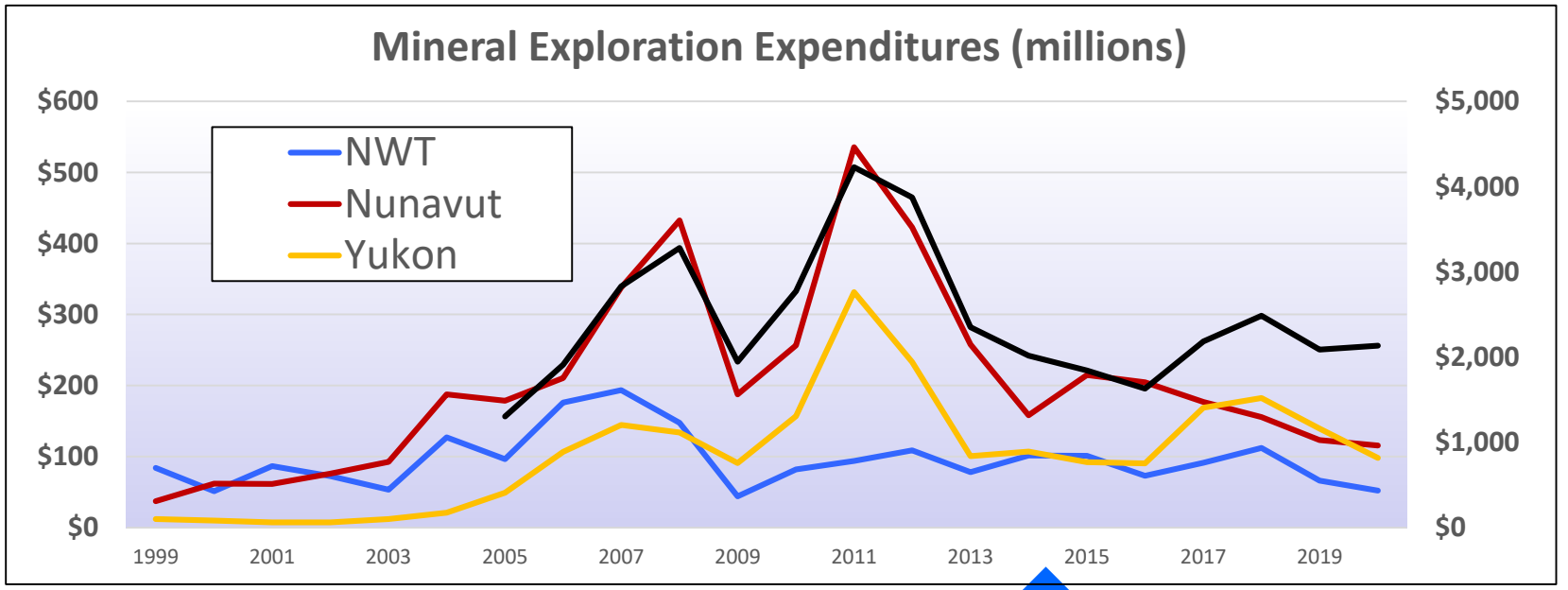
- Hard to find new mines if land is not accessible
- All the grey is off limits to exploration
  - Conservation, eg: parks, candidate protected areas
  - Unsettled land claims
  - Land use plans
- And some 'open' areas are effectively closed
- Industry is increasingly challenged for access to land to explore

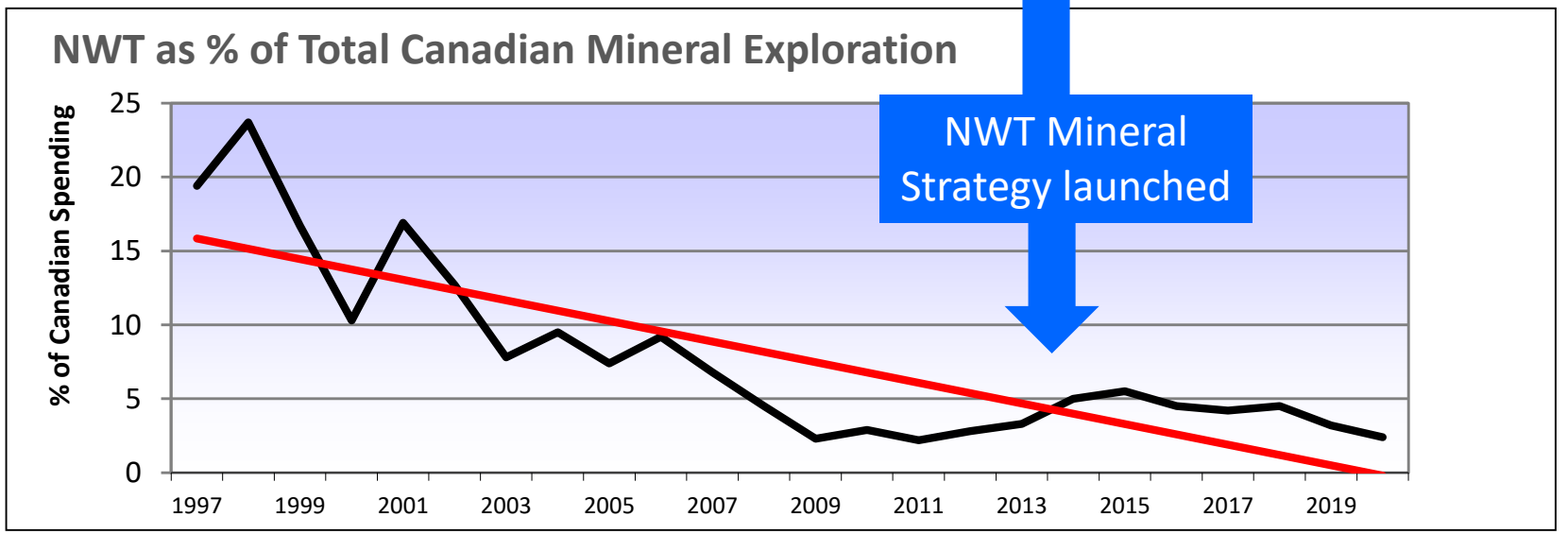


What else have we done to make exploration difficult?

- These have all helped make NWT less attractive to investors by creating uncertainty, reducing land access, and adding costs
  - **2000-2018**: Unsettled land claims challenge land access create uncertainty
  - **2000-2014**: NWT Protected Areas Strategy – 60,000 sq.km. protection
  - **2007**: Akaitcho land claim 62,000 sq.km. interim withdrawal
  - **2007**: Thaidene Nene land withdrawal of 33,000 sq.km.
  - **2007**: 18,000 sq.km exploration blocked Upper Thelon, investors lost $25 million
  - **2008**: New Akaitcho requirement for onerous Exploration Agreements
  - **2009**: North Arrow Minerals grassroots exploration challenged in court
  - **2010**: Akaitcho “public concern” triggers EA for TNR Gold grassroots project
  - **2015**: ‘public concern’ triggers EA for grassroots sand exploration
  - **2016**: UNESCO biosphere reserve over 93,000 sq.km. around Great Bear Lake – no consultation
  - 2019: Bathymetry issue
- **Most of these have not been resolved: saying we are open for business is risky**

The result? Exploration investment continues to underperform





- Exploration continues to languish and we continue to lose investment share
- We've missed out on over $1.4 billion in exploration investment compared to Yukon, NU since 2007
- **The 2014-19 Mineral Strategy has not been enough to increase investment:** Other factors are trumping it

Myth: The markets are to blame

How do we fix flagging exploration?

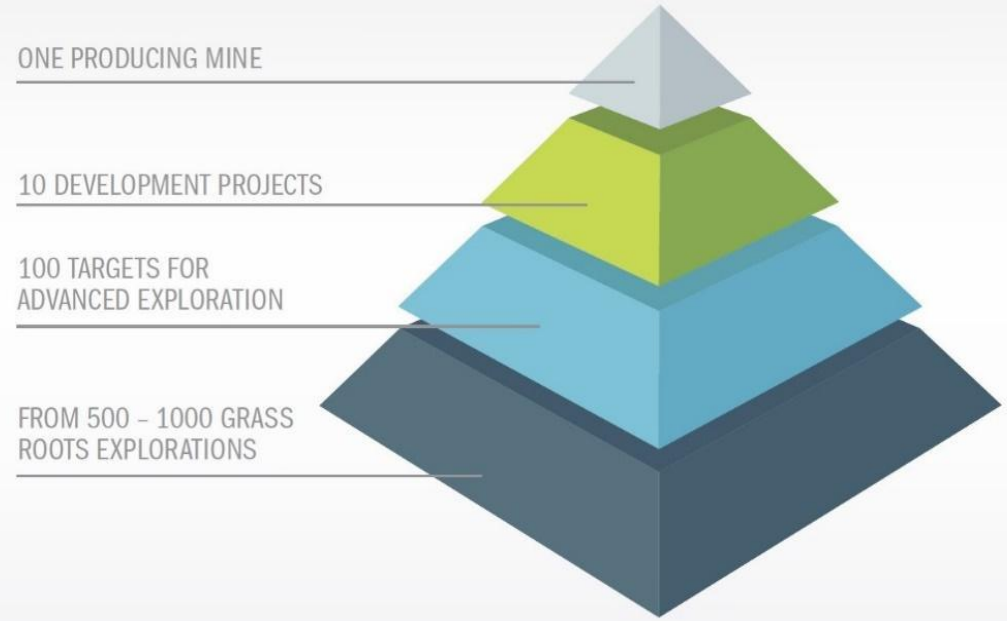
- To attract investment, you must **Know Your Customer**
  - Who are they?
  - What do they do? How they work
  - How do they finance their work?
  - What are their limitations?

NWT & NUNAVUT CHAMBER OF MINES

Exploration is high risk for failure and the footprint is very small

- Not every exploration finds a mine; the odds are very much against success
- And Exploration footprint is small, and it is also reclaimed

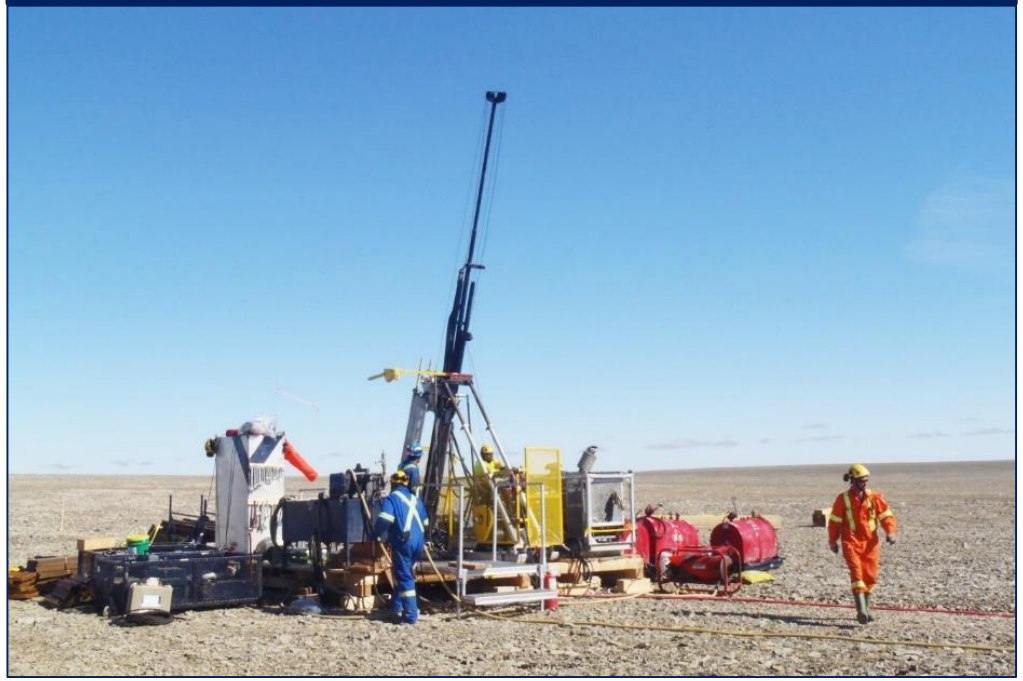
Only 1 in 1,000 exploration projects becomes a mine



•Graphic courtesy Fraser Institute

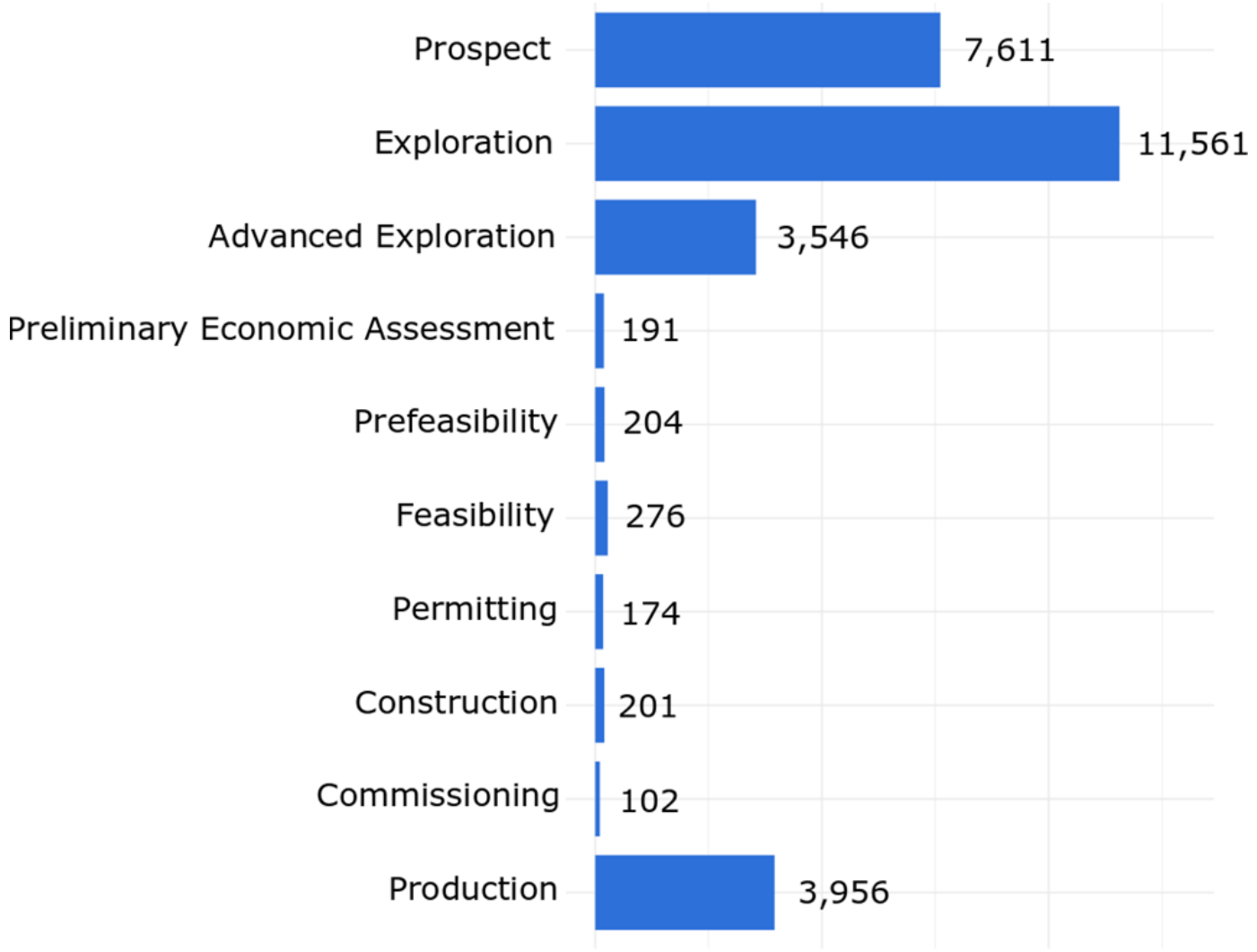
•Playing bingo has better odds.

And exploration affects very little land



Number of projects by stage worldwide

- About 4,000 mines today
- 23,866 hopeful projects
- 19,172 in early exploration
- 3,546 advanced exploration
- 671 in economic study
- 174 permitting
- 201 under construction
- 102 being commissioned



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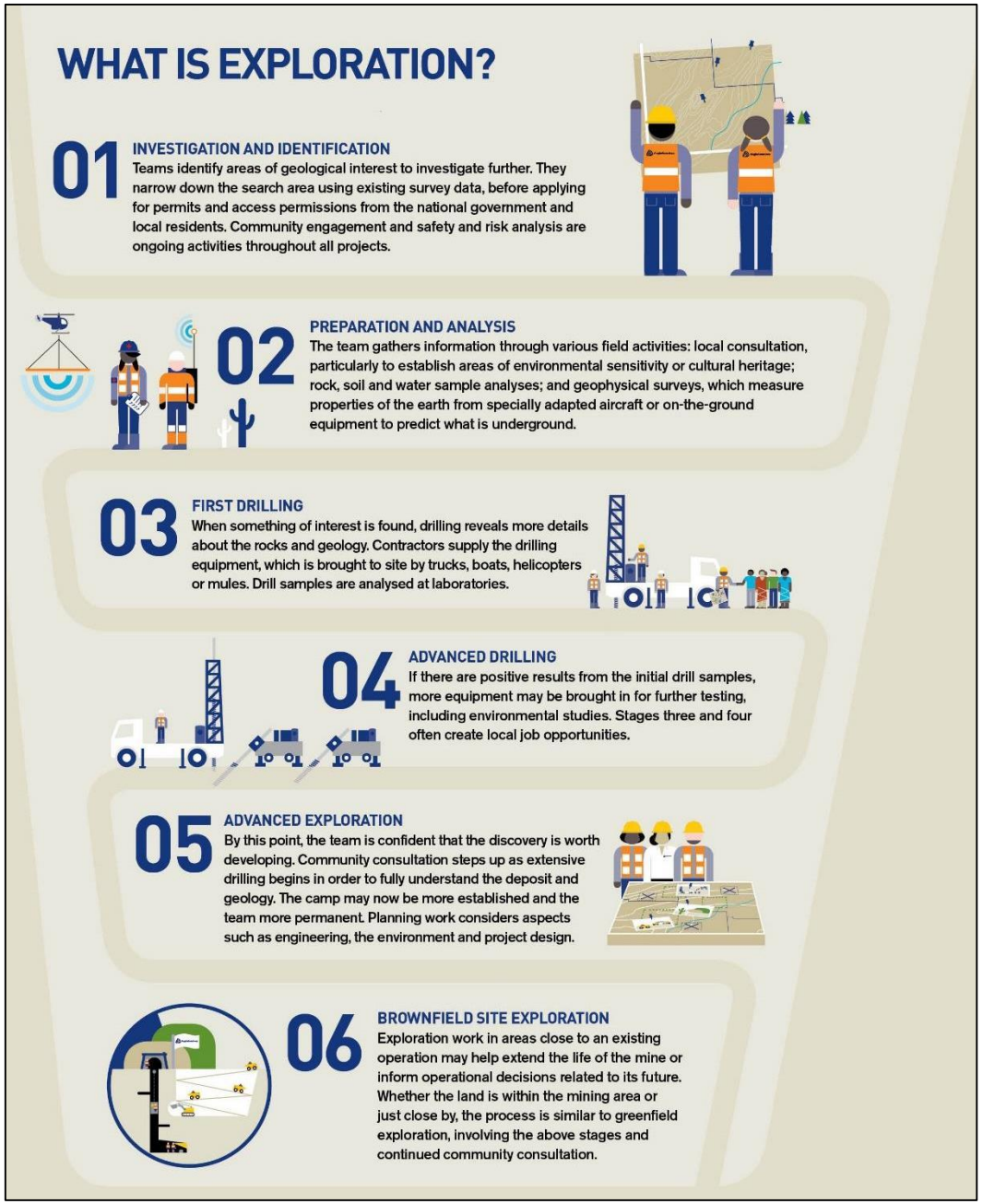
http://www.mining.com/data-indicates-future-mines-will-operating-attractive-mining-jurisdictions-deposits-arent/

mining intelligence

What is exploration?

- Investigation and Identification
- Preparation and Analysis
- First drilling
- Advanced drilling
- Advanced exploration
- Brownfield site exploration



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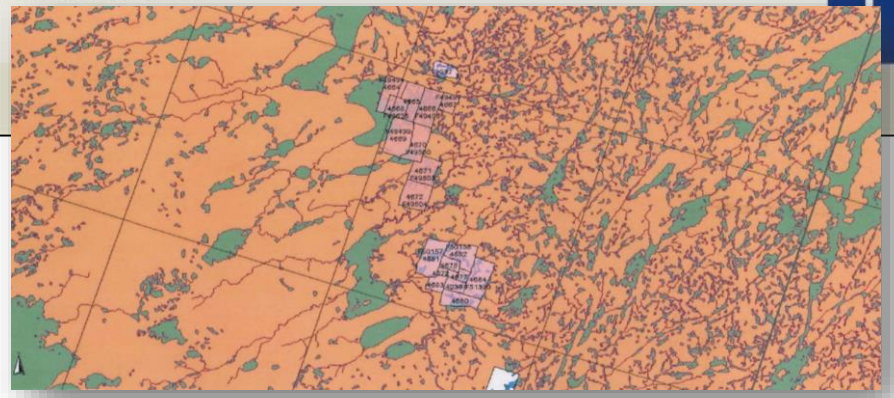
What is early stage exploration?

WHAT IS EXPLORATION?

01 INVESTIGATION AND IDENTIFICATION

Teams identify areas of geological interest to investigate further. They narrow down the search area using existing survey data, before applying for permits and access permissions from the national government and local residents. Community engagement and safety and risk analysis are ongoing activities throughout all projects.



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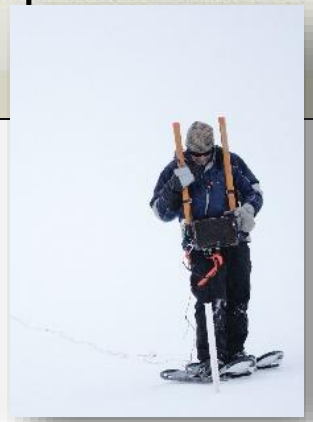
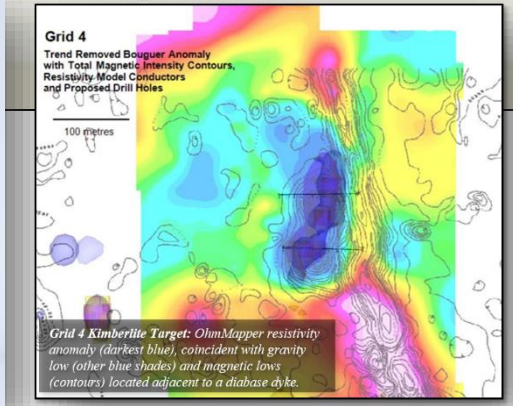
What is exploration?

02

PREPARATION AND ANALYSIS

The team gathers information through various field activities: local consultation, particularly to establish areas of environmental sensitivity or cultural heritage; rock, soil and water sample analyses; and geophysical surveys, which measure properties of the earth from specially adapted aircraft or on-the-ground equipment to predict what is underground.





Grid 4 Kimberlite Target: OhmMapper resistivity anomaly (darkest blue), coincident with gravity low (other blue shades) and magnetic lows (contours) located adjacent to a diabase dyke.

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What is grassroots exploration?

03 FIRST DRILLING

When something of interest is found, drilling reveals more details about the rocks and geology. Contractors supply the drilling equipment, which is brought to site by trucks, boats, helicopters or mules. Drill samples are analysed at laboratories.

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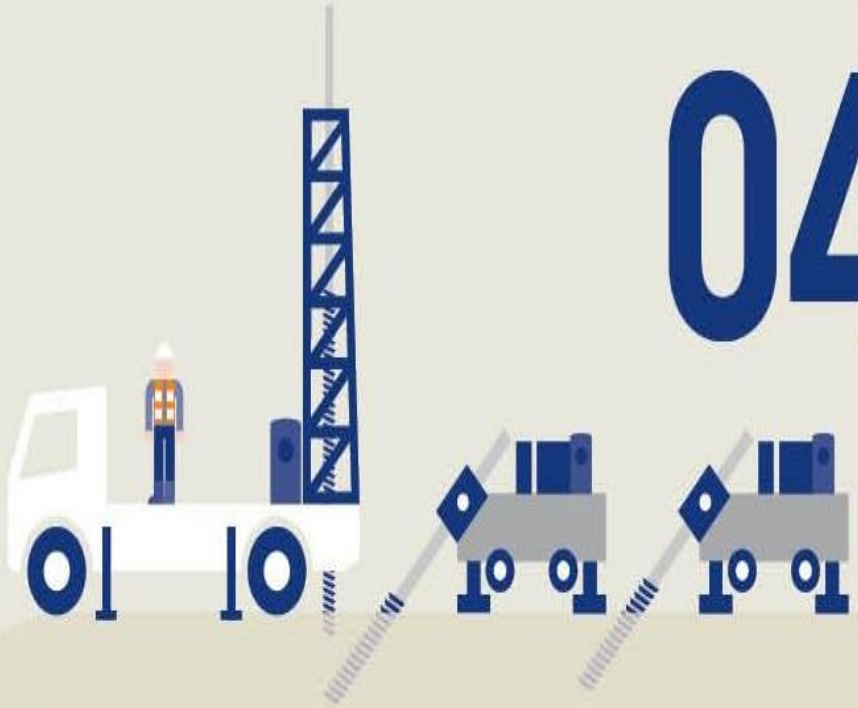
What is advanced drilling?



04 ADVANCED DRILLING

If there are positive results from the initial drill samples, more equipment may be brought in for further testing, including environmental studies. Stages three and four often create local job opportunities.

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What is advanced exploration?

05 ADVANCED EXPLORATION

By this point, the team is confident that the discovery is worth developing. Community consultation steps up as extensive drilling begins in order to fully understand the deposit and geology. The camp may now be more established and the team more permanent. Planning work considers aspects such as engineering, the environment and project design.

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What is brownfields exploration?

06

BROWNFIELD SITE EXPLORATION

Exploration work in areas close to an existing operation may help extend the life of the mine or inform operational decisions related to its future. Whether the land is within the mining area or just close by, the process is similar to greenfield exploration, involving the above stages and continued community consultation.

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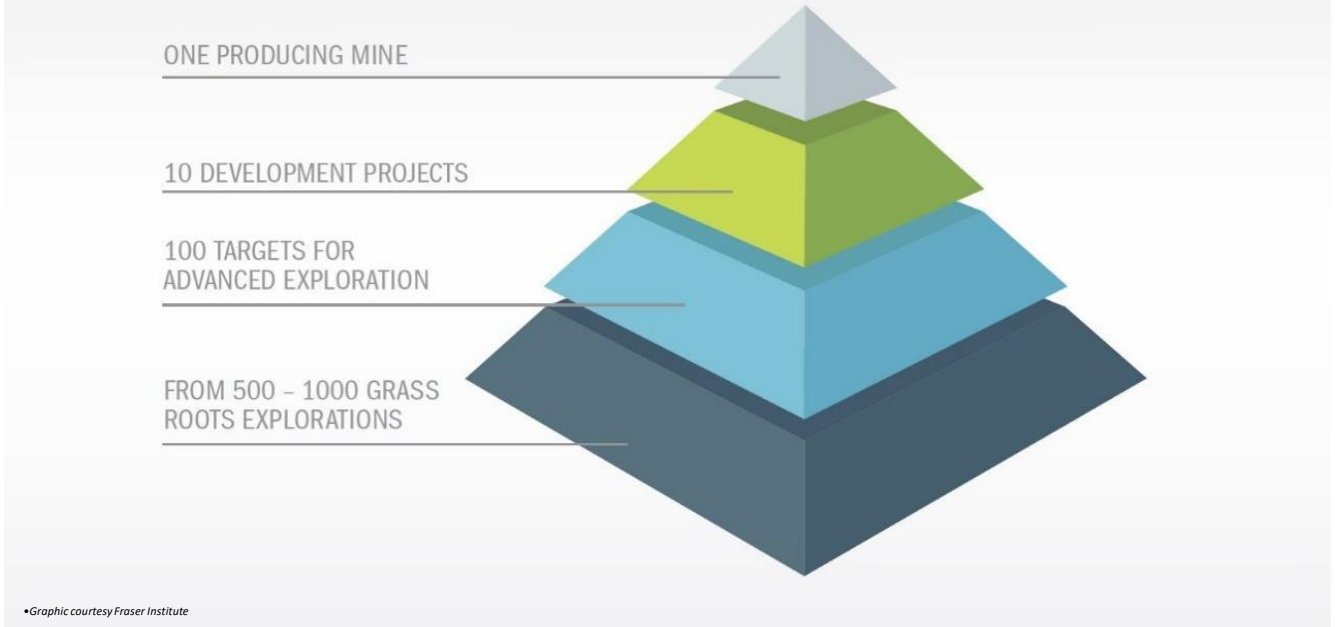
Exploration is Risky – like finding a needle in a haystack

Only 1 in 1,000 exploration projects becomes a mine



•Graphic courtesy Fraser Institute

Wally chooses a haystack

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Bingo has better odds – many players, many cards

- We need “more players, more cards”
- Mining success improves with lots of exploration investment and multiple projects

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Early stage exploration is “Low Impact”

Wally collecting stream sediment samples

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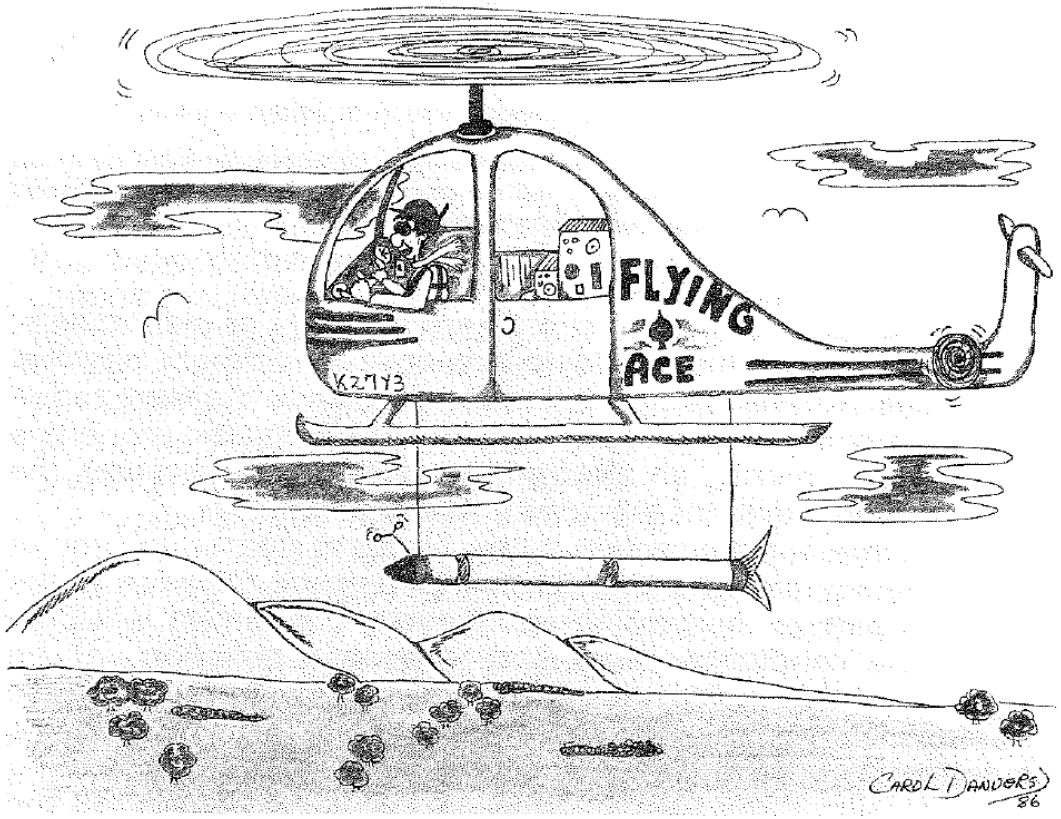
Low Impact Exploration



Wally tries his hand at helicopter geophysics

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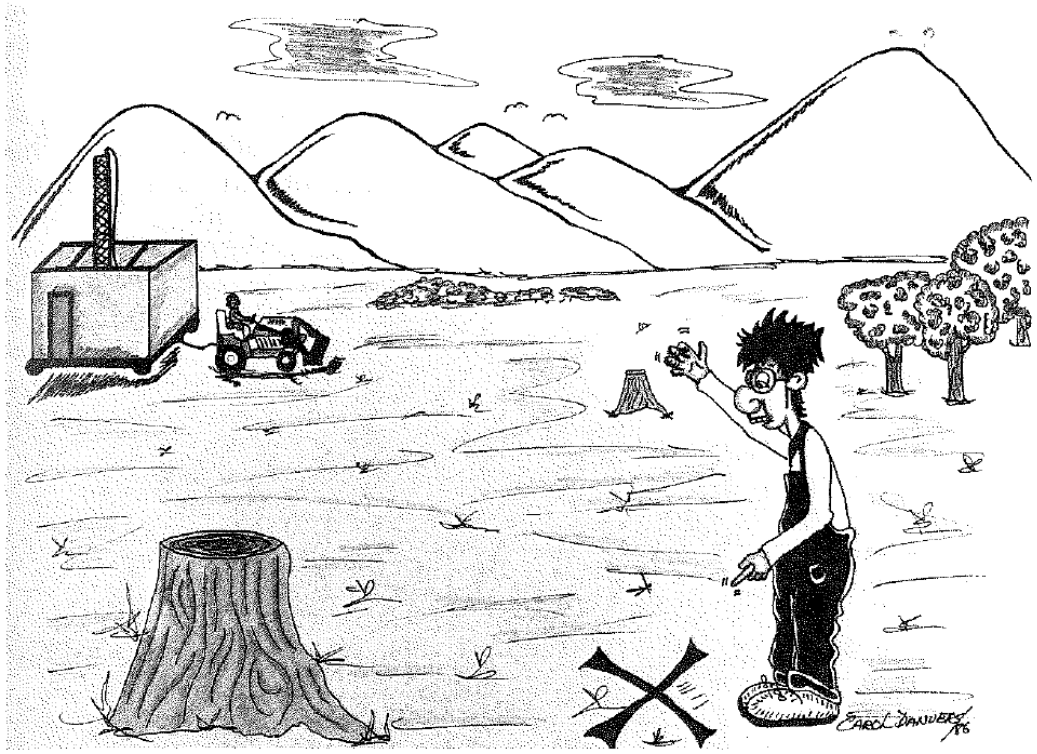
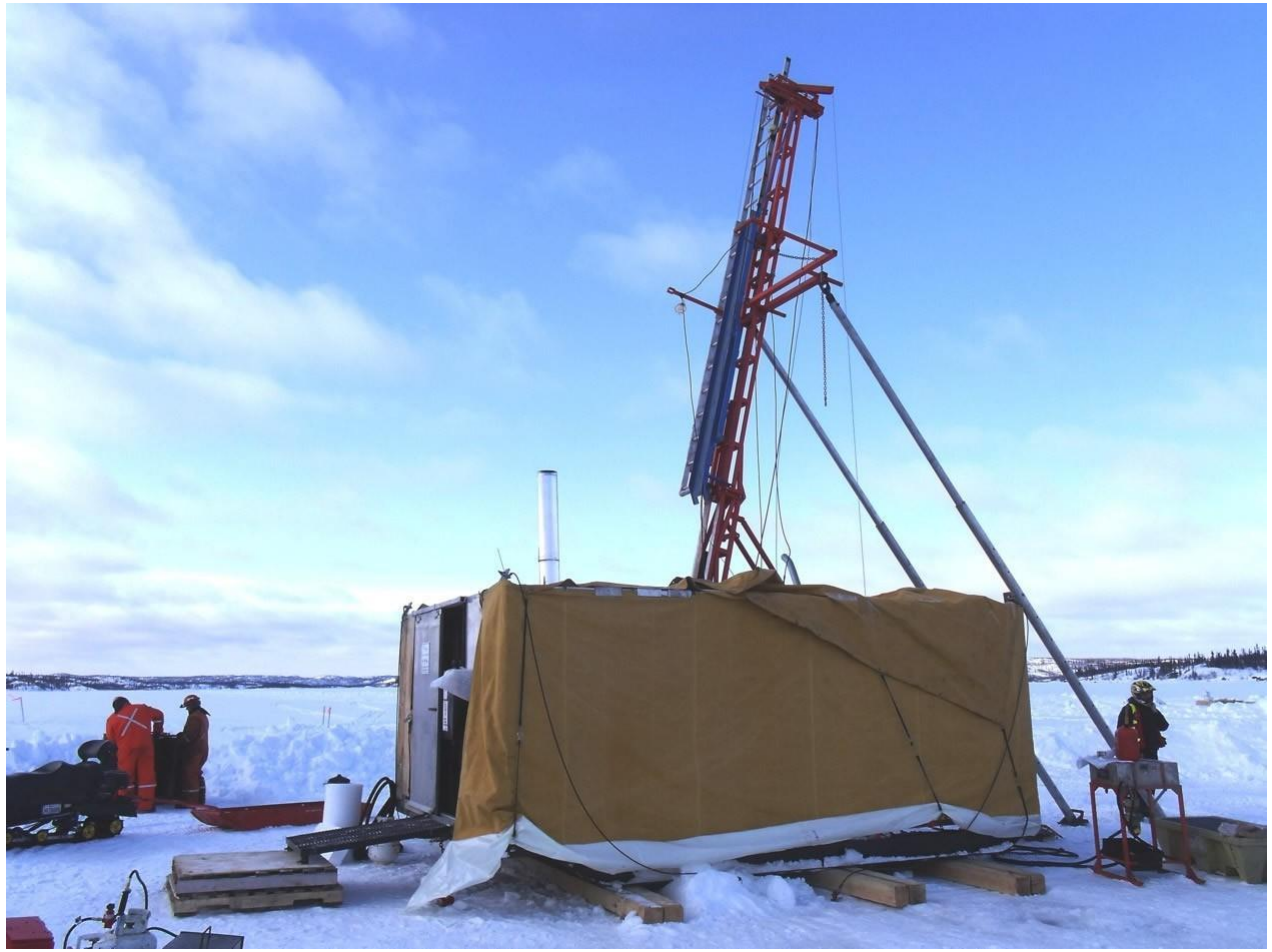
Grassroots drilling is small impact – even on ice



'X' marks the spot where Wally plans to drill his first test hole



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More low impact grassroots drilling projects

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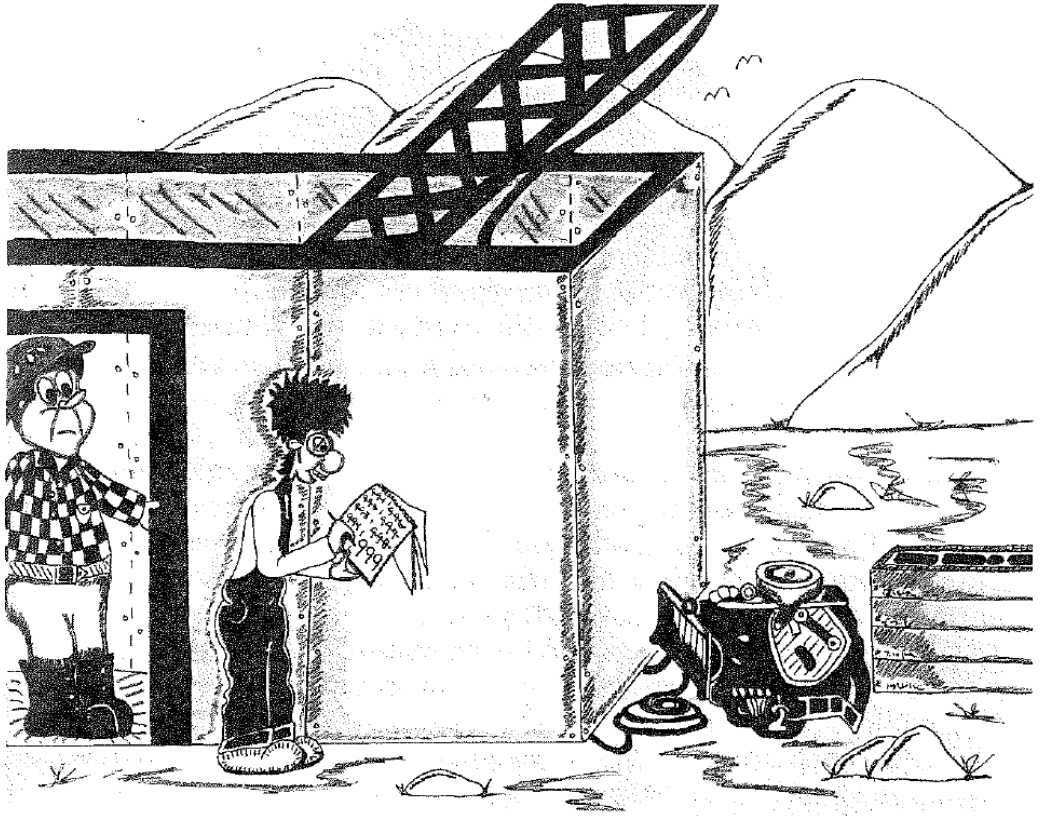
Grassroots drilling is small impact, and no guarantees



Wally has just drilled unsuccessful hole number 999—he hopes that the '1 in 1000' statistic is really true!

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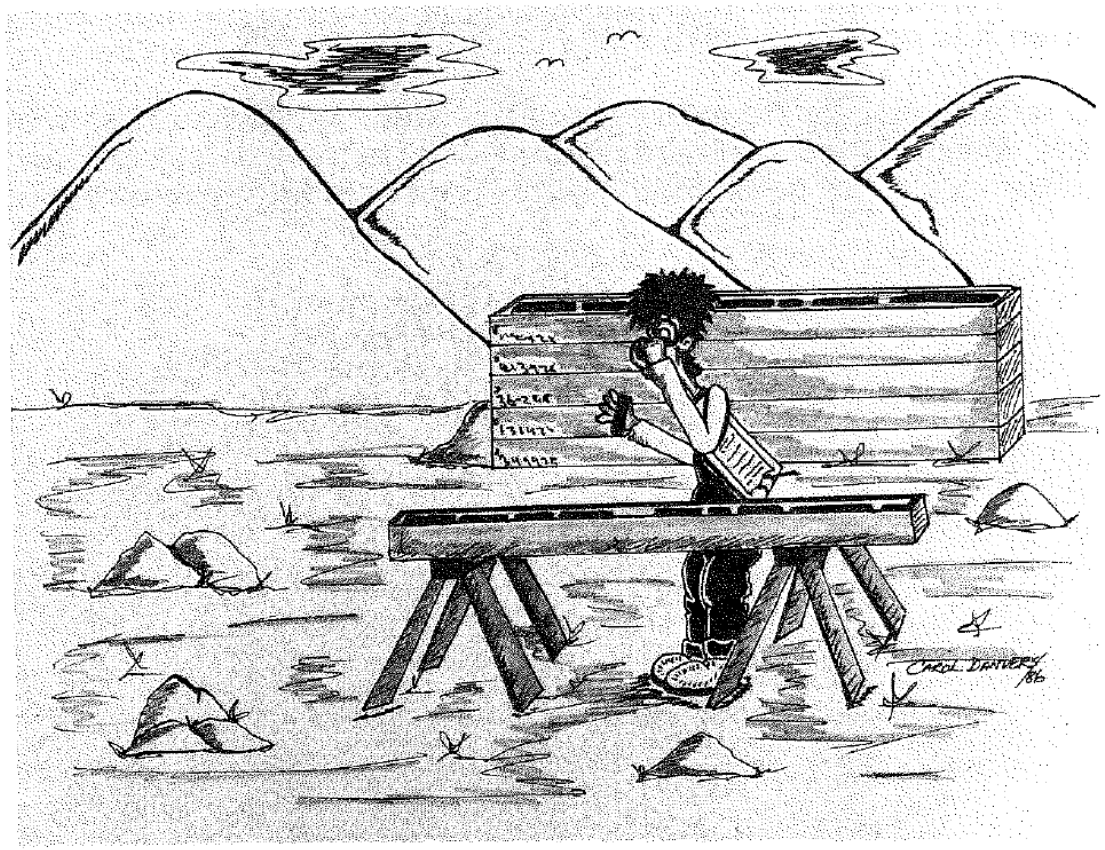
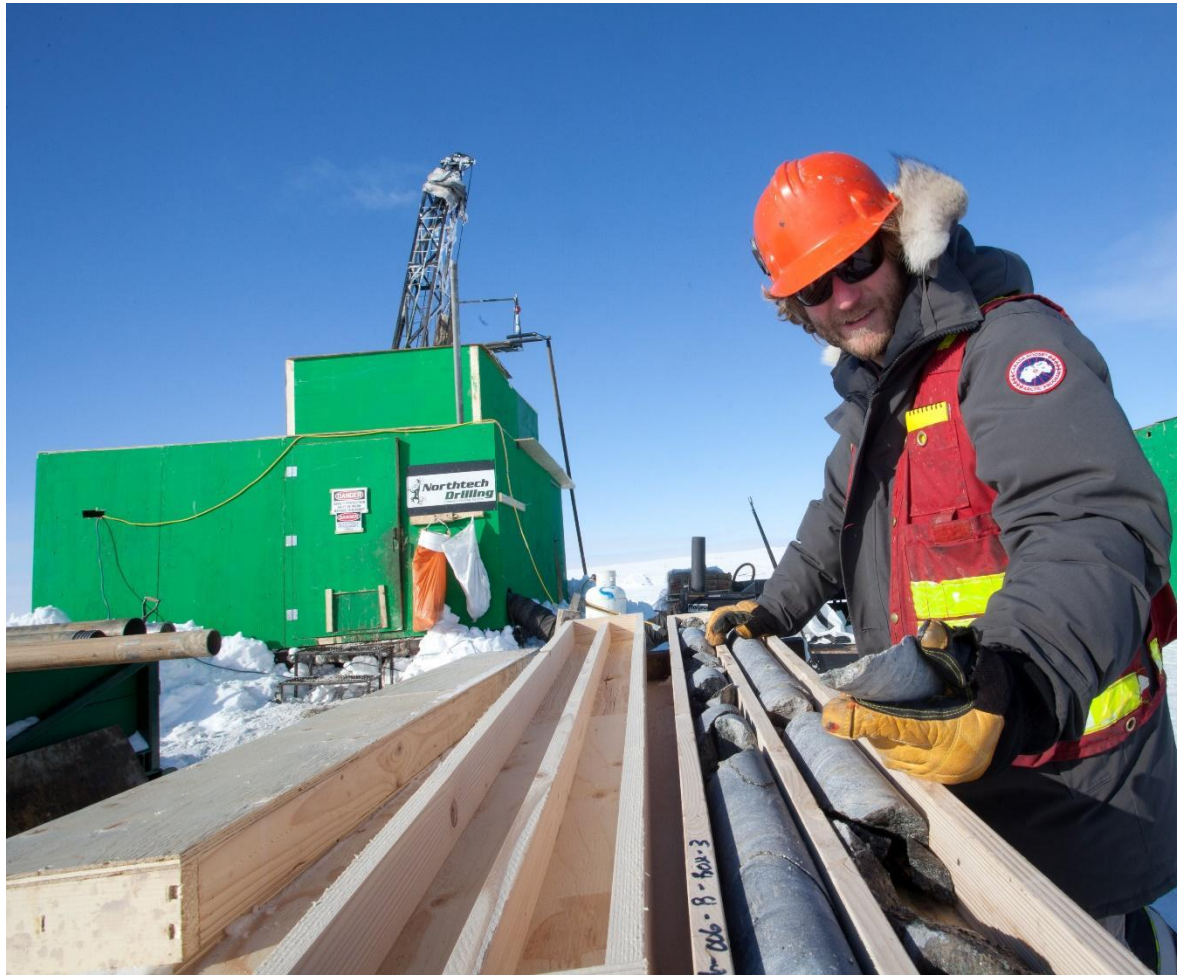
Drilling removes small diameter cores of rock samples



Wally examining his drill core



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Drilling on ice is common – still small footprint

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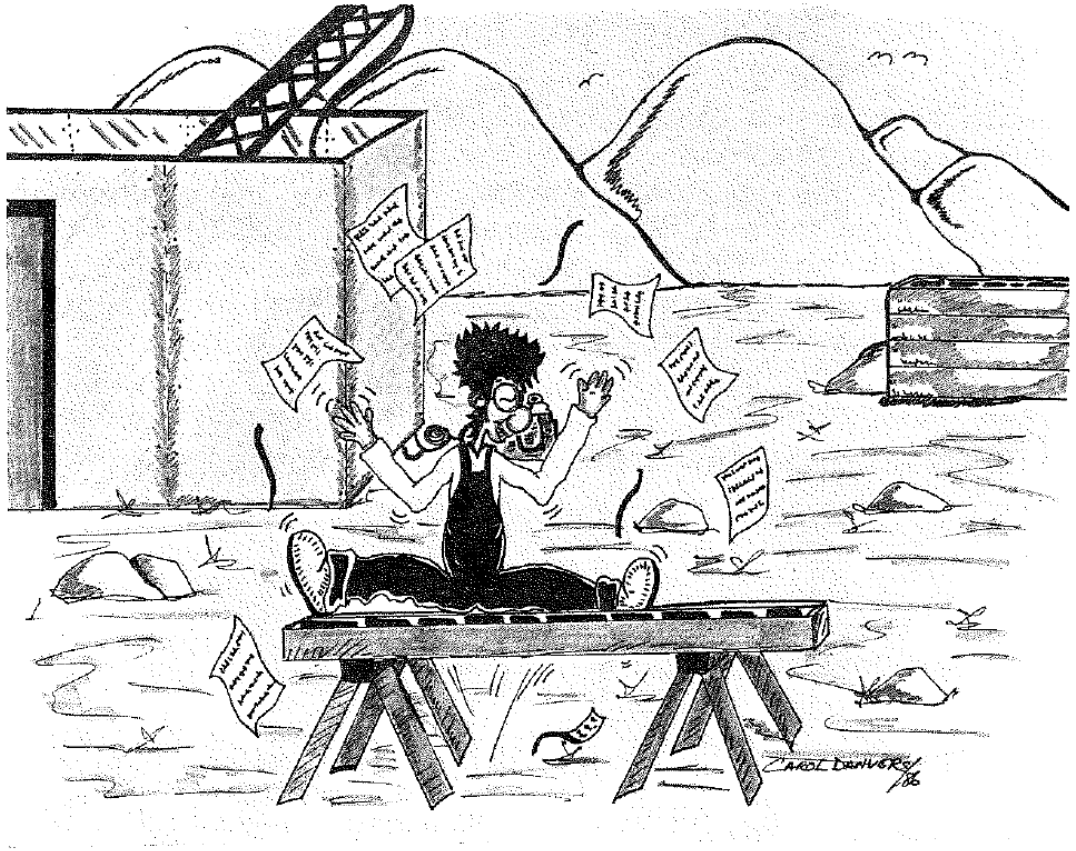
Even multiple drills are small impact

NWT & NUNAVUT CHAMBER OF MINES

Grassroots success means moving onto advanced exploration



Wally's drill hole number 1000 was a spectacular success!

Bulk sampling drilling – footprints now larger

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Advanced Exploration: Bulk sample mining – footprint larger

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Other issues

- I would like to acknowledge the very frank and open discussion we had with CanNor, GNWT and CIRNAC after the PDAC about legislation, policies, etc.
- I would like to thank Lisa, Pam and Rebecca for reaching out.
- We are appreciative of this discussion to enhance and further transparent and open dialogue.
- Also, I would like to thank Shelagh for reaching out to industry to initiate the first ever board-industry collaboration. Dates to be announced.

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Other issues for further discussion

- We would like to openly engage on other issues as well, eg:
  - Make Type B Land Use Permits useful again, quicker and more applicable to early stage exploration needs
  - Revisit the need for limited management plans at early stage exploration
  - Timelines – how to shorten for early stage exploration
  - Archaeological requirement matched to stage
  - Better securities calculation for mineral exploration projects
  - Improved engagement with industry, eg, opportunities to resolve issues early
  - Reboot of the MVRMA – possibly even speaking to some of this over the next couple of days. Siloed approach by all governments but where are socio-economic considerations in these decisions.

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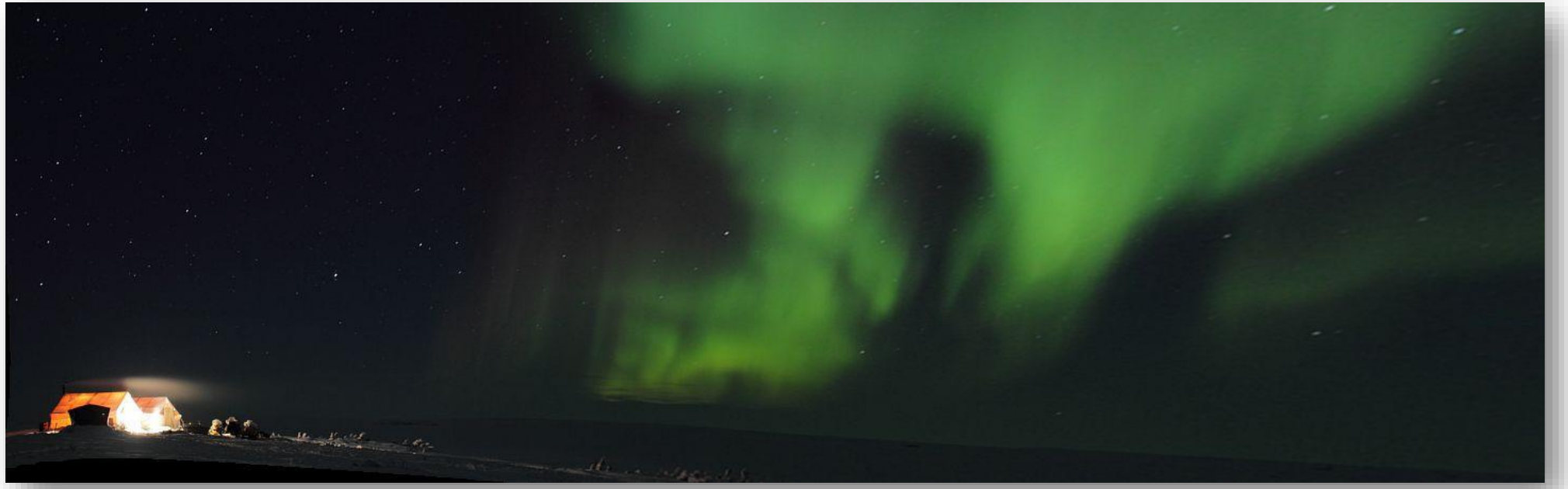
Thank You!

I look forward to the next couple of days of open discussion.

Questions or comments??



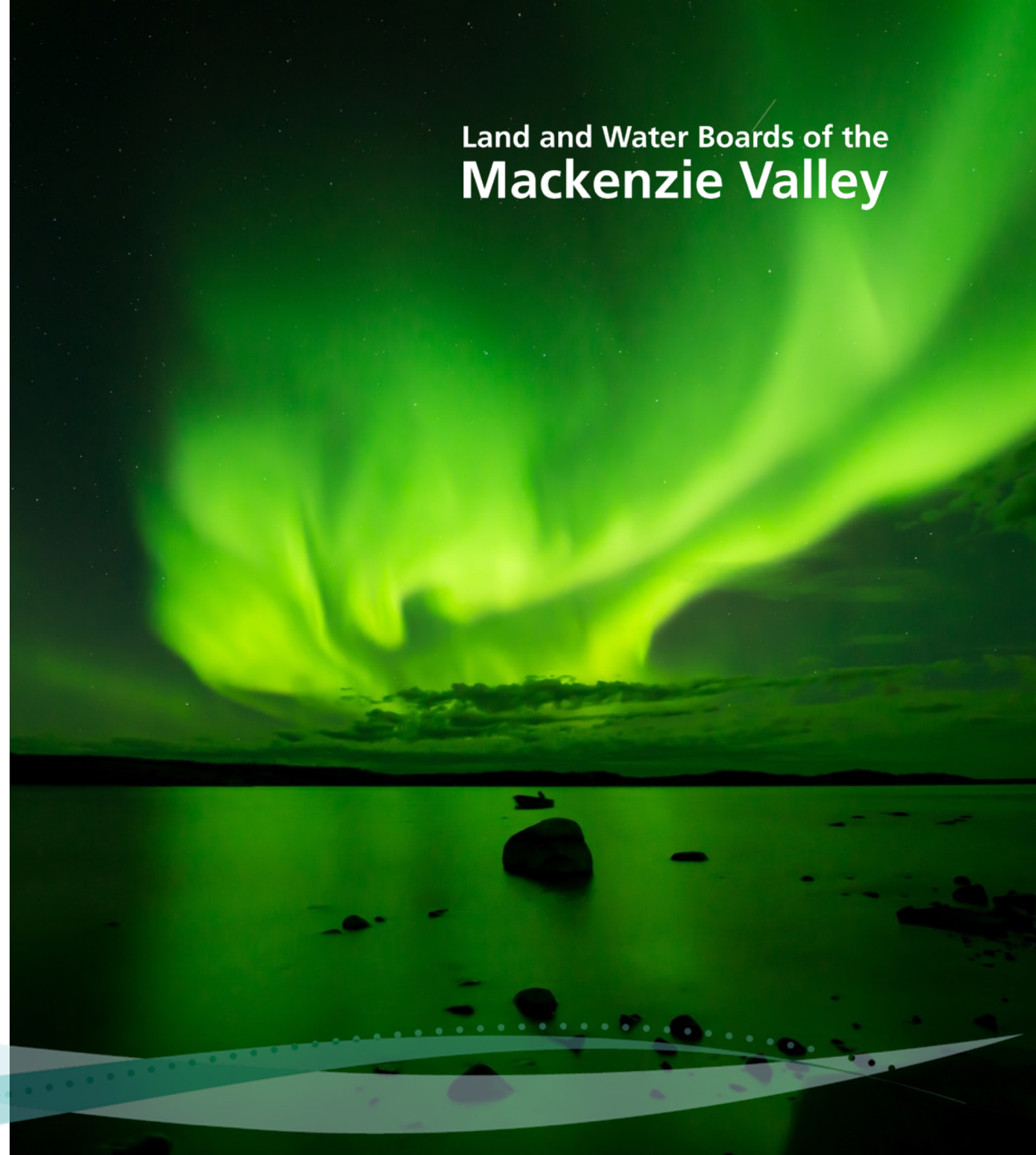
NWT & NUNAVUT CHAMBER OF MINES

Land and Water Boards of the Mackenzie Valley

Case Study 1: Engagement
Rover Metals Corp. W2018C0002

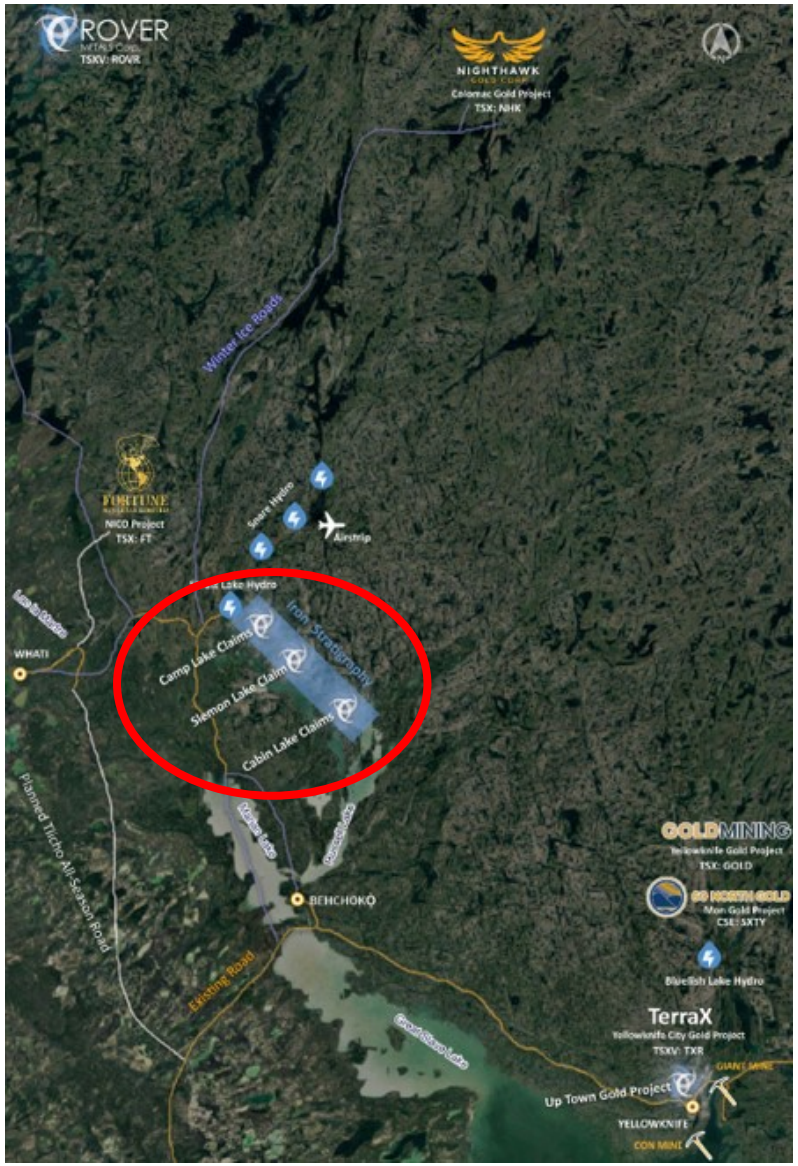
Rover Metals Case Study – Overview

- Small exploration project north of Behchokǫ̀ near Russel Lake
- Example of a project which had good engagement, and submitted a mostly-complete application
- Case highlights importance of proof of eligibility information requirement
- Insufficiencies in the application were addressed quickly and process went smoothly
- Through communication between the company and Board staff, application was adjusted and permit structured so that a potential challenge had a clear way forward
- Clear and regular communication between proponents and Board staff helps to ensure a smooth process



Rover Metals - Cabin Lake Group Project

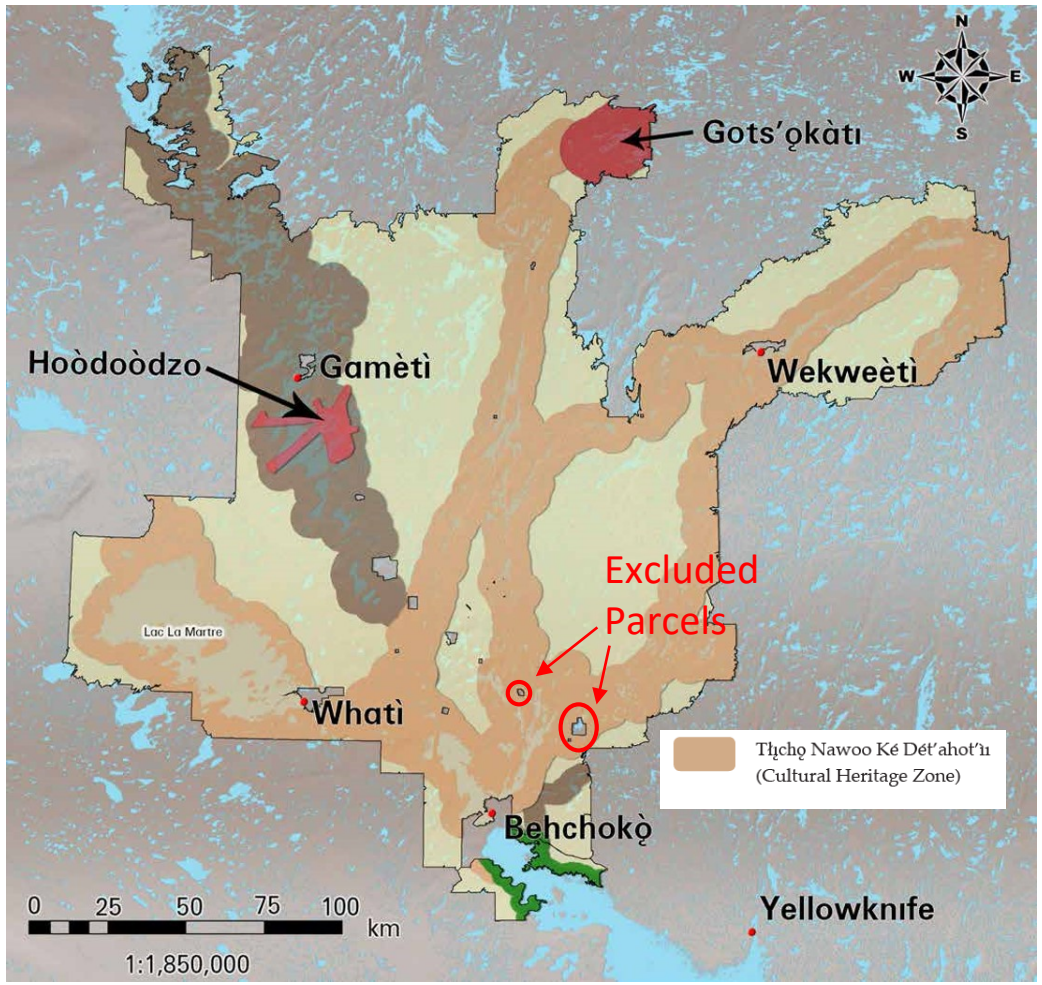
- Small Exploration project in Wek'èezhìi region – Cabin, Camp, and Slemon Lakes – 5 claims
- 1-3 drills (50 holes/year), trenching, geophysical surveys
- Small camp



Initial Application Process

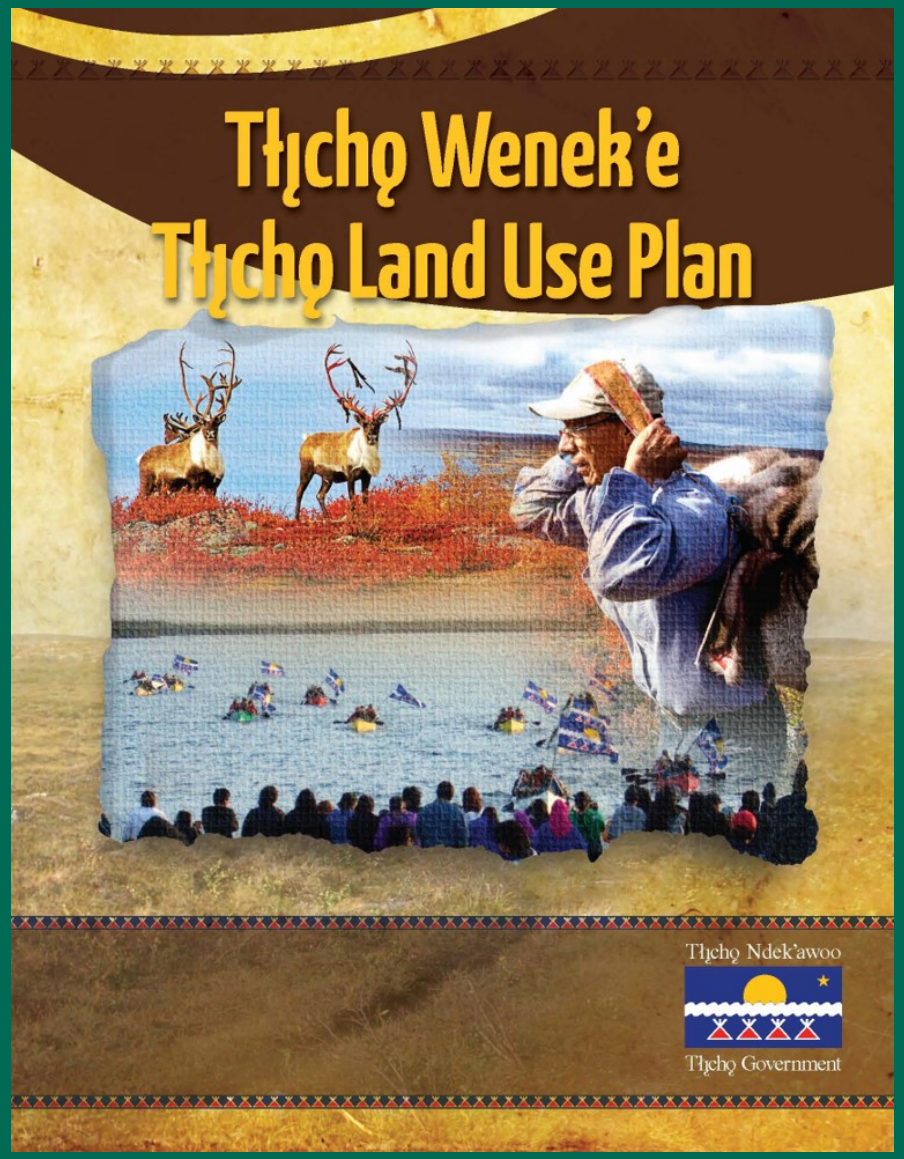
- Submitted May 15, 2018
- Engagement Plan & Record Included – mostly complete
- Claim areas were “excluded parcels” within Tłı̨chǫ Lands – proposed road access through Cultural Heritage Zone
- Application deemed incomplete May 24 –
  - Discrepancy between mineral claims and Tłı̨chǫ Agreement (proof of eligibility)
  - More detail needed on proof of Tłı̨chǫ Lands Access
  - Engagement with North Slave Metis Alliance required

Land and Water Boards of the Mackenzie Valley



Application Review

- Additional information submitted June 8, application deemed complete and distributed June 12.
- Tłı̨chǫ Government recommended during review that the Tłı̨chǫ Land Use Plan be considered in Board's decisions
- Rover committed to seek approval from Tłı̨chǫ Government for road access
- Rover's commitment opened door for Board to include road in the scope of the Permit



Issuance

Land and Water Boards of the Mackenzie Valley

- Permit issued July 19, 2018 (37 days from complete application receipt)
- Engagement & Closure Plans approved at issuance
- Spill & Waste to be revised and re-submitted
- Approval from Tłı̨chǫ Government required for road access, permit can be amended to include road if approved

Wek'èezhìı Land and Water Board

Box 32, Wekweètì, NT X0E 1W0
Tel: 867-713-2500 Fax: 867-713-2502

#1-4905 48th Street, Yellowknife, NT X1A 3S3
Tel: 867-765-4592 Fax: 867-765-4593
www.wlwb.ca

LAND USE PERMIT

Permit Class	Permit No	Amendment No
A	W2018C0002	

Subject to the Mackenzie Valley Land Use Regulations and the terms and conditions in this Permit, authority is hereby granted to:

Rover Metals Corporation
Permittee

To proceed with the land use operation described in application of:

Signature	Date
Ron Woo	June 8, 2018

Type of Land use Operation

Mineral Exploration including: Establishment of a campsite, storage of fuel, use of vehicles and machines, mineral exploration including diamond and RC drilling, trenching, and Construction, use, and maintenance of winter roads and access trails.

Location

Cabin Lake Property, Camp Lake Property, Slemon Lake Property

This permit may be assigned, extended, discontinued, suspended or cancelled pursuant to the Mackenzie Valley Land Use Regulations.

Dated at Yellowknife this 19 day of July , 2018

Signature Acting Chair | Signature Witness

Effective Date	Expiry Date
July 19, 2018	July 18, 2023

Attention

It is a condition of this Permit that the Permittee comply with the provisions of the *Mackenzie Valley Resource Management Act* and regulations and the terms and conditions set out herein. A failure to comply may result in suspension or cancellation of this Permit by the Board.

Lessons Learned

Challenges

- Eligibility:
  - Mineral Claims
  - Access through Tłı̨chǫ Lands
- Engagement Log incomplete

Successes

- Above issues were easily addressed through revised application, access issue has clear way forward (to either seek approval for road or stick to air access)
- Application processed quickly

Key Lessons

- Eligibility (right to access) is an important aspect of the application – work to satisfy this requirement early
- Effective and regular communication between proponents and Board staff ensures early identification and resolution of issues

Improvements

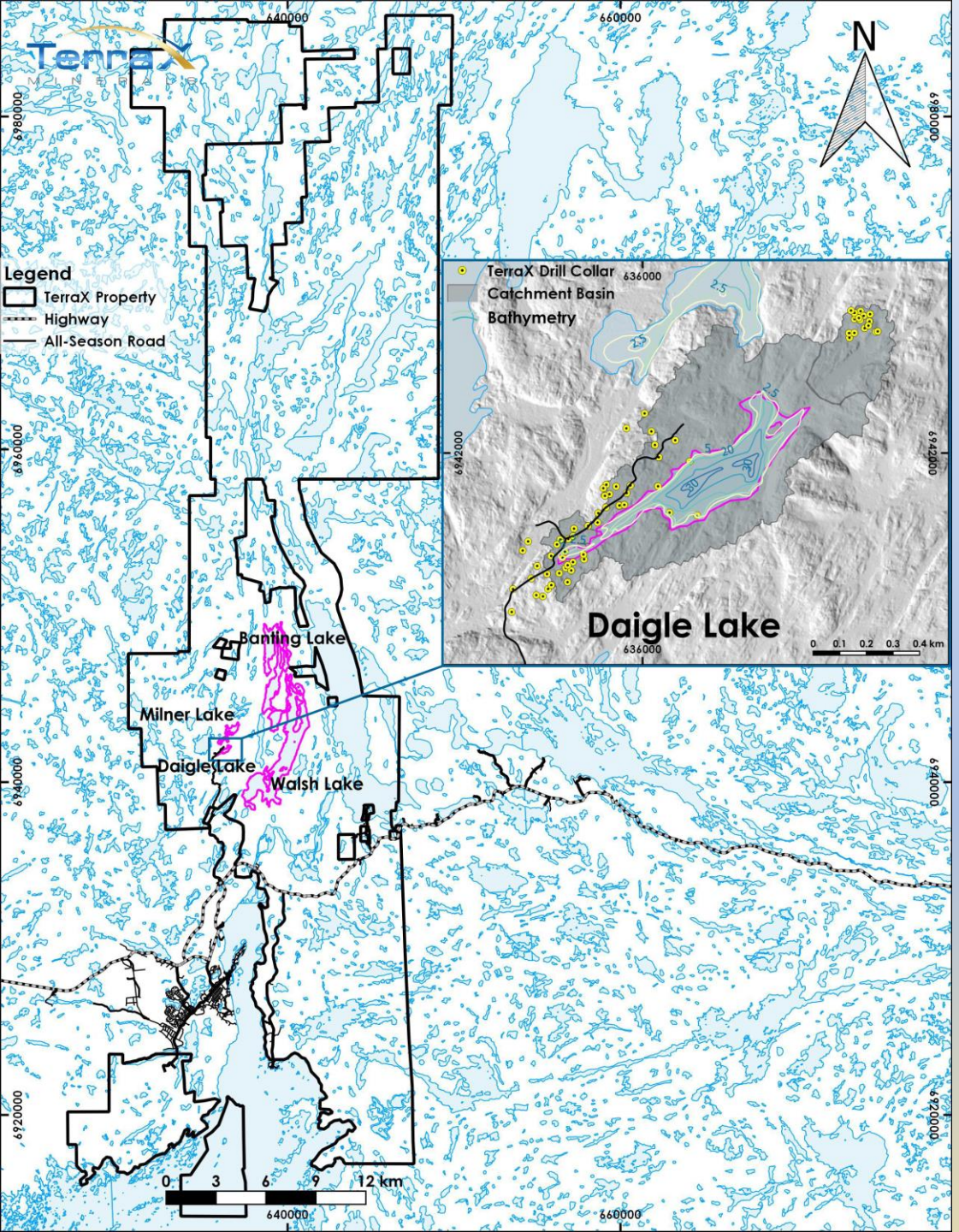
- Application forms are now more specific about what information to include for eligibility (access agreements, etc)
- Guide to Land Use Permitting Process highlights obtaining eligibility as a first step

CASE STUDY 2

GOLD TERRA (TERRAX) WATER LICENCE APPLICATION 2019

MV2018L2-0006

YELLOWKNIFE CITY GOLD PROJECT



CASE STUDY 2
Problem #1

THE SCOPE OF THE WATER LICENCE APPLICATION YELLOWKNIFE CITY GOLD PROJECT

800 KM^2

GOLD TERRA

THE #1 PROBLEM FOR MVLWB

- Uncertainty of where (and when) water would be used
- Uncertainty of volume of water usage, and whether water bodies could sustain the uptake

TerraX (Gold Terra) Response was technical – and assumed worst a case scenario*

"Assuming no recharge over the 5 years from snow melt, rain, or the watershed drainage (which has obviously occurred), TerraX's usage of Daigle Lake (*as example*) is **0.47%** of the static lake volume, or less than **0.1%** per year on average. Even ignoring the return of the water used to the watershed, this volume was recovered several times over by natural recharge over the 5 years. Even this case of most intensive drill activity on a small lake would result in only **1 centimeter of drawdown** on Daigle Lake, again assuming no return water to the watershed or natural recharge"

Our Response was essentially saying 'don't worry'

**Highlights added for this presentation*

GOLD TERRA

OUTCOME OF MV2018L2-0006

- Licence was **approved** – ***(but)***
- Conditions on water draw are onerous
  - Bathymetry is required on all lakes where water uptake will occur
  - A maximum of **0.5%** of a water body volume is allowed in a 365 day period

GOLD TERRA

UNDERSTANDING THIS ISSUE

What Activity are you Regulating for Advanced Exploration?

GOLD TERRA

BEST PRACTICES IN THE MV

Two Opposing Views

GOLD TERRA

BEST PRACTICES IN THE MV

Two Opposing Views

INDUSTRY **REGULATOR**

Expedite Exploration

?

Protect the Land

EXPLORATION INDUSTRY
'HAPPY MEDIUM'

GOLD TERRA

BEST PRACTICES IN THE MV

Two Opposing Views

INDUSTRY **REGULATOR**

Expedite Exploration

?

Protect the Land

WHERE IS THE ‘HAPPY MEDIUM’

GOLD TERRA

BEST PRACTICES IN THE MV

An Industry Representative's Views

The North needs a system that expedites exploration

Better, Cheaper, and Faster

than Southern Canada

GOLD TERRA

COMPARISON - NL and NWT EXPLORATION PERMIT PROCESSES
HOW DO WE STACK UP

Who Regulates Your Exploration Activity

NEWFOUNDLAND

Land Tenure - Mineral Lands Division

Seamless

Exploration Approvals – As Above

NORTHWEST TERRITORIES

Land Tenure – Usually ITI Mining Recorder
but, could be an IGO
or a combination?

?

Exploration Approvals

- GLWB
- MVLWB
- NWTWB
- SLWB
- WLWB

Disconnected
No mutual responsibility to applicant

GOLD TERRA

COMPARISON OF NL PERMIT PROCESS and NWT PERMIT PROCESSES

APPLICATION AND APPROVAL

NEWFOUNDLAND

- Exploration work in Labrador may require Indigenous consultation. The Province is responsible for conducting Indigenous consultation
- Once the applications are referred out, other departments/agencies are requested to reply with any concerns or comments within 14 days
- After 14 days and/or once all comments are received, approval letters are prepared and issued to applicants.

NORTHWEST TERRITORIES

- 3 – 12 months is indicated in the Guide to Water Licences for 'Engagement' prior to submitting an application
  - *as a note the proponent is not made aware of this requirement when staking a claim!*
- The Board is required to make a decision on a type A or type B water licence within **9 months** – this can be extended indefinitely
  - *Includes 30 days of public on-line comment and response*
- Water Licences also requires a Land Use Permit to carry out exploration activities
  - *Carried out in parallel, but require separate applications and public on-line comments and responses*
- It is possible to be approved for 1 application and not the other, in which case no work can proceed.

GOLD TERRA

HOW DO WE IMPROVE THE SYSTEM

1. The regulatory process needs to recognize that the most important stakeholder in a permit application is the proponent. Policy guidance should direct the Boards to aid industry, not block industry
2. Technical staff, Executive Directors, and Board members need education in the activities they are permitting. This should consist of:
    a. Industry related materials for appointees and a program of on-going education – both desktop and hands-on (site visits)
    b. Competency testing on policy, process, and practical application of technical matters
3. Board members need longer appointments to allow for "memory" and consistent rulings
4. Eliminate formal engagement requirements and the public review process for preliminary exploration including drilling – it is expensive, time consuming, and creates uncertainty
5. Avoid duplication - one permit for exploration activities (300 m^3/day) under a LUP
6. Empower inspectors (land or water) to approve drilling activity and water uptake locations
7. Standardize conditions for exploration activities and approve applications if the technical review is deemed complete
8. Form policy direction to technical staff that requires them to assist proponents to successfully complete applications. The goal for the MV is for an application never to fail

GOLD TERRA


THANK YOU