Northwest Territoriesmi
Ihumiurviat
Malirutaliatigun

MEETING EDE 89-19-21

STANDING COMMITTEE ON ECONOMIC DEVELOPMENT AND ENVIRONMENT

~

THURSDAY, DECEMBER 2, 2021
COMMITTEE ROOM 'A' / TELECONFERENCE
11:15 A.M.

AGENDA

1. Prayer

2. Review and Adoption of Agenda

3. Declarations of Conflict of Interest

4. Public Matters

   a) Briefing with the Hon. Minister Diane Archie regarding major Infrastructure Projects in the NWT

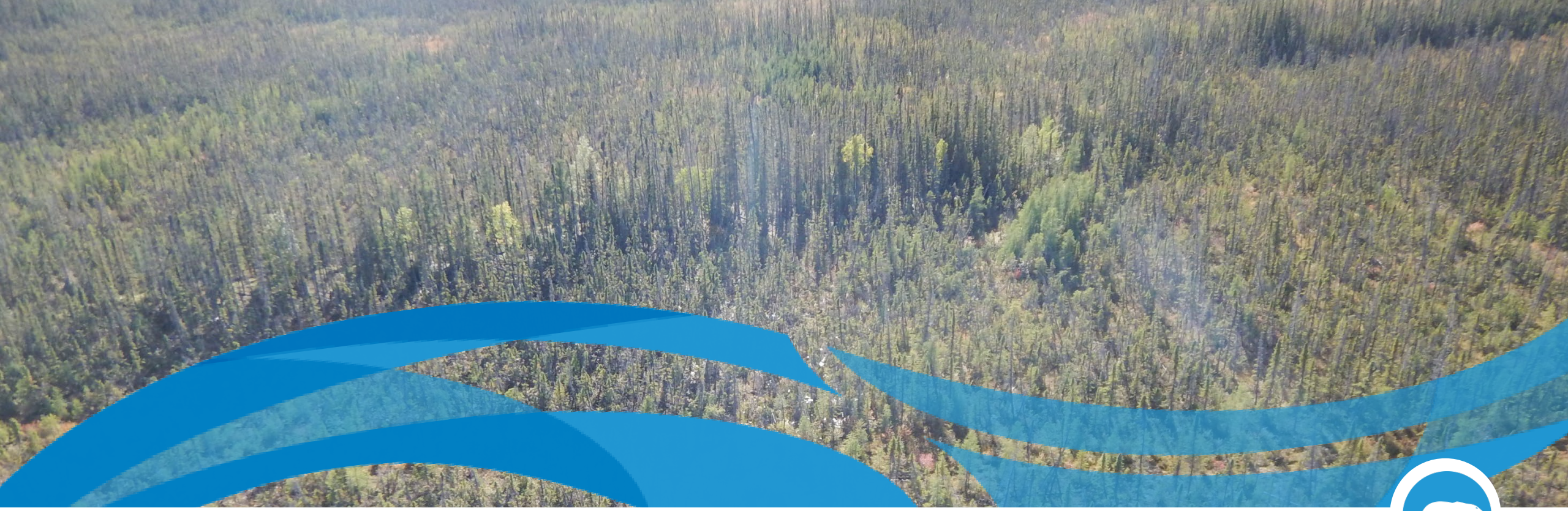
5. In-Camera Matters

   a) Wrap-up Discussion

   b) Confidential Correspondence
      i. 2021-11-26 – Minister of Lands
      ii. 2021-11-29 – Minister of Lands

6. Date and Time of Next Meeting: Thursday, December 9, 2021 at 10:30 a.m.

6. Adjournment



GNWT - Strategic Energy and Infrastructure Projects

Standing Committee on Economic Development and Environment

December 2021

Presentation Outline

- GNWT Strategic Investments
- Mackenzie Valley Highway - Overview
  - Canyon Creek Access Road
  - Prohibition Creek Access Road
  - Mount Gaudet Access Road
  - Great Bear River Bridge
  - Environmental Assessment
- Slave Geological Province Corridor - Overview
  - Frank Channel Bridge
- Taltson Hydro Expansion – Overview
  - MOU
  - Routing Studies

Government of
Northwest Territories

GNWT Strategic Investments

"These projects will provide the foundational infrastructure to support an improved quality of life and lower cost of living for NWT residents, as well as support the expansion and diversification of the economy."

- **Mackenzie Valley Highway**
- **Slave Geological Province Corridor**
- **Taltson Hydro Expansion**

Government of Northwest Territories

GNWT Strategic Investments

Indigenous partnership

Improving Energy Stability and Security

Significant GHG Reductions

Fueling the Clean Technology Sector

Reducing the Cost of Living and Doing Business

Promoting Environmental Stewardship

Fostering Economic Development

Greening the mining sector

Government of Northwest Territories

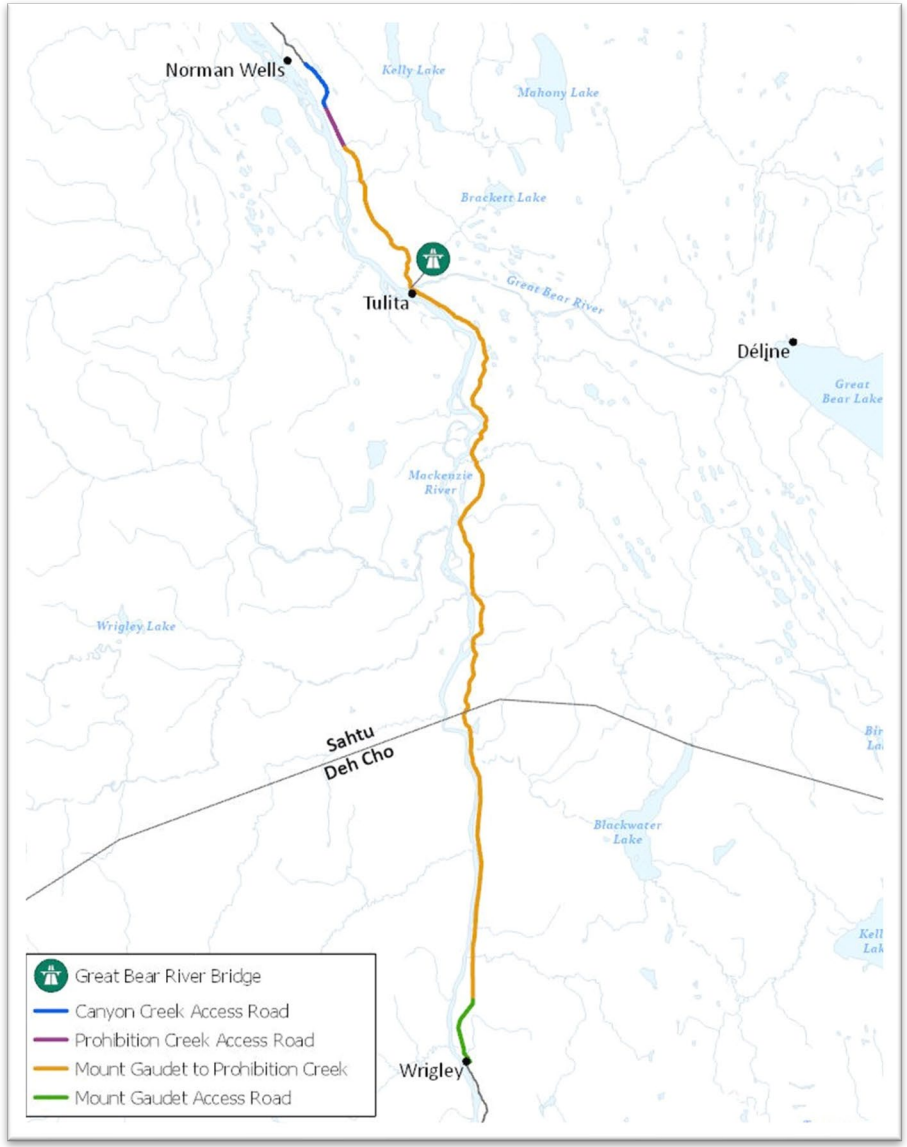
Mackenzie Valley Highway - Overview

- 321 km all-season road from Wrigley to Norman Wells
- Replace existing winter road
- Improve intercommunity mobility
- Lower cost of living
- Create new economic opportunities
- Preliminary estimate $700+ million cost

Government of
Northwest Territories

Mackenzie Valley Highway - Overview

- Phased development approach
- Capacity building road extensions
  - Canyon Creek Access Road
  - Prohibition Creek Access Road
  - Mount Gaudet Access Road
- Great Bear River Bridge
- MVH Environmental Assessment and Engineering Studies



Government of Northwest Territories

Mackenzie Valley Highway - Overview

- 2017 New Building Canada Plan - $20 Million
  - Planning, Engineering and Construction of Canyon Creek Access Road

- 2018 National Trade Corridors Fund - $140 Million
  - MVH Environmental Assessment and Planning Studies
  - Great Bear River Bridge and Mount Gaudet Access Road Planning and Engineering Studies
  - Construction of Great Bear River Bridge
  - Construction of Mount Gaudet Access Road

- 2020 Investing in Canada Infrastructure Plan - $20 Million
  - Planning, Engineering and Construction of Prohibition Creek Access Road

- Total Funding $180 Million – 75% ($135 M) Federal Funding / 25% ($45 M) GNWT Funding

Canyon Creek Access Road

- 14 km all-season road from Norman Wells, south to Canyon Creek
- $20 million investment under New Building Canada Plan 2017
- Design, engineering, permitting and procurement (2015 to 2017)
- Construction start Winter 2017
- Completion Fall 2018
- Employment and training

Government of
Northwest Territories

Prohibition Creek Access Road

- 13 km all-season road from Canyon Creek, south to Prohibition Creek
- $20 million investment under Investing in Canada Infrastructure Plan 2020
- Road Permitting complete
- Construction Procurement - Phase 1 (In Progress)
    - Construction Start Winter 2022
- Construction Procurement - Phase 2 (Fall 2022)
    - Anticipated completion 2024

Government of Northwest Territories

Mount Gaudet Access Road

- 15 km all-season road from Wrigley, north to Mount Gaudet Quarry
- Funding included under National Trade Corridors Fund 2018
- Permitting currently paused

Government of Northwest Territories

Great Bear River Bridge

- 487 m span, 800 m east of the confluence of the Mackenzie River and the Great Bear River
- Funding secured under National Trade Corridors Fund 2018
- Design, engineering and permitting in progress
- Construction start anticipated early 2023
- Anticipated bridge opening 2026

Government of
Northwest Territories

Mackenzie Valley Highway Environmental Assessment

2012

- Project Description Report
- Land Use Permit Application

2013

- Environmental Assessment Referral
- Project Scoping
- Draft Terms or Reference

2014

- Revised Project Description
- Revised Project Scoping
- Revised Terms of Reference

2015

- Review of Terms of Reference
- Terms of Reference Issued

2016

- Lobbying for Funding

Mackenzie Valley Highway Environmental Assessment

2017

- Lobbying for Funding

2018

- Funding secured under National Trade Corridors Fund
- Project team staffing
- Engagement

2019

- Sahtu Secretariat Incorporated and Government of the Northwest Territories Memorandum of Understanding
- Engagement

2020

- Engagement
- Fish Habitat & Hydrological Assessments
- Archaeological Overview & Impact Assessments
- Caribou Collaring
- Borrow Source Assessments
- Hydrotechnical Assessments

2021

- Engagement
- Developer's Assessment Report & Project Description
- Traditional Knowledge & Land and Resource Use Studies
- Socio-Economic Impact Assessment
- Outstanding Environmental & Engineering Studies

Mackenzie Valley Highway Environmental Assessment

2022

- Engineering Studies
- IGO Consultation
- Developer's Assessment Report Submission
- Review Board Process
- Information Requests

2023

- Engineering Studies
- Technical Sessions
- Interventions
- Public Hearings and Follow Up
- Report of Environmental Assessment
- Federal Lobbying for Construction Funding

2024

- Responsible Ministers' Final Decision
- Submit Construction Regulatory Authorizations
- Federal Lobbying for Construction Funding
- Procurement *
- Start Construction*

2025

- Construction and Construction Monitoring *

2026 – 20XX

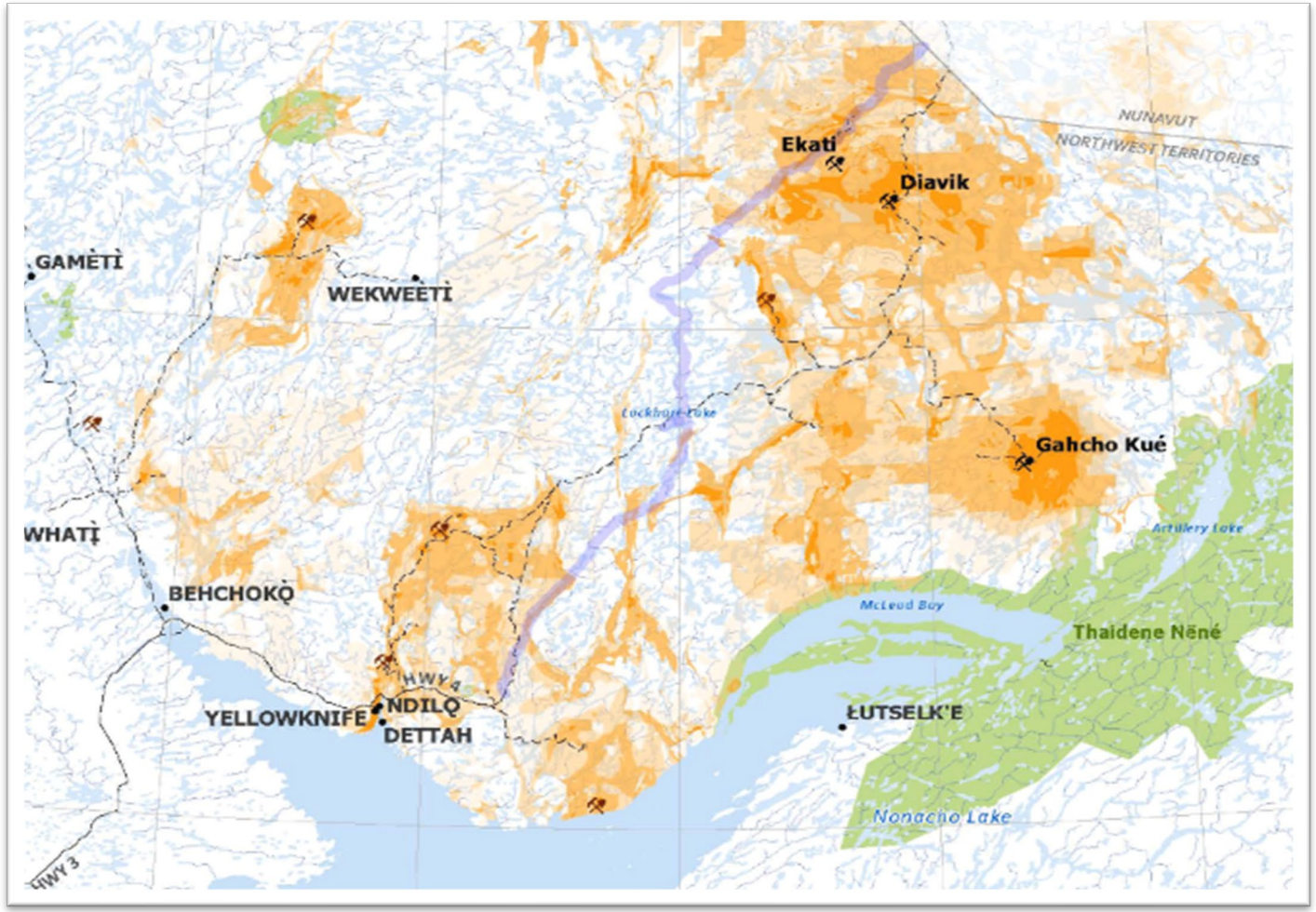
- Construction and Construction Monitoring *

* Pending Funding and Regulatory Authorizations

Government of Northwest Territories

Slave Geological Province Corridor - Overview

- 413 km all-season road from Tibbitt Lake to Nunavut Boarder
- Replace existing winter road
- Improve access to existing industrial developments
- Enable new economic opportunities
- Will support complimentary communications and electricity infrastructure
- Potential to link to Grays Bay Road and Port Project

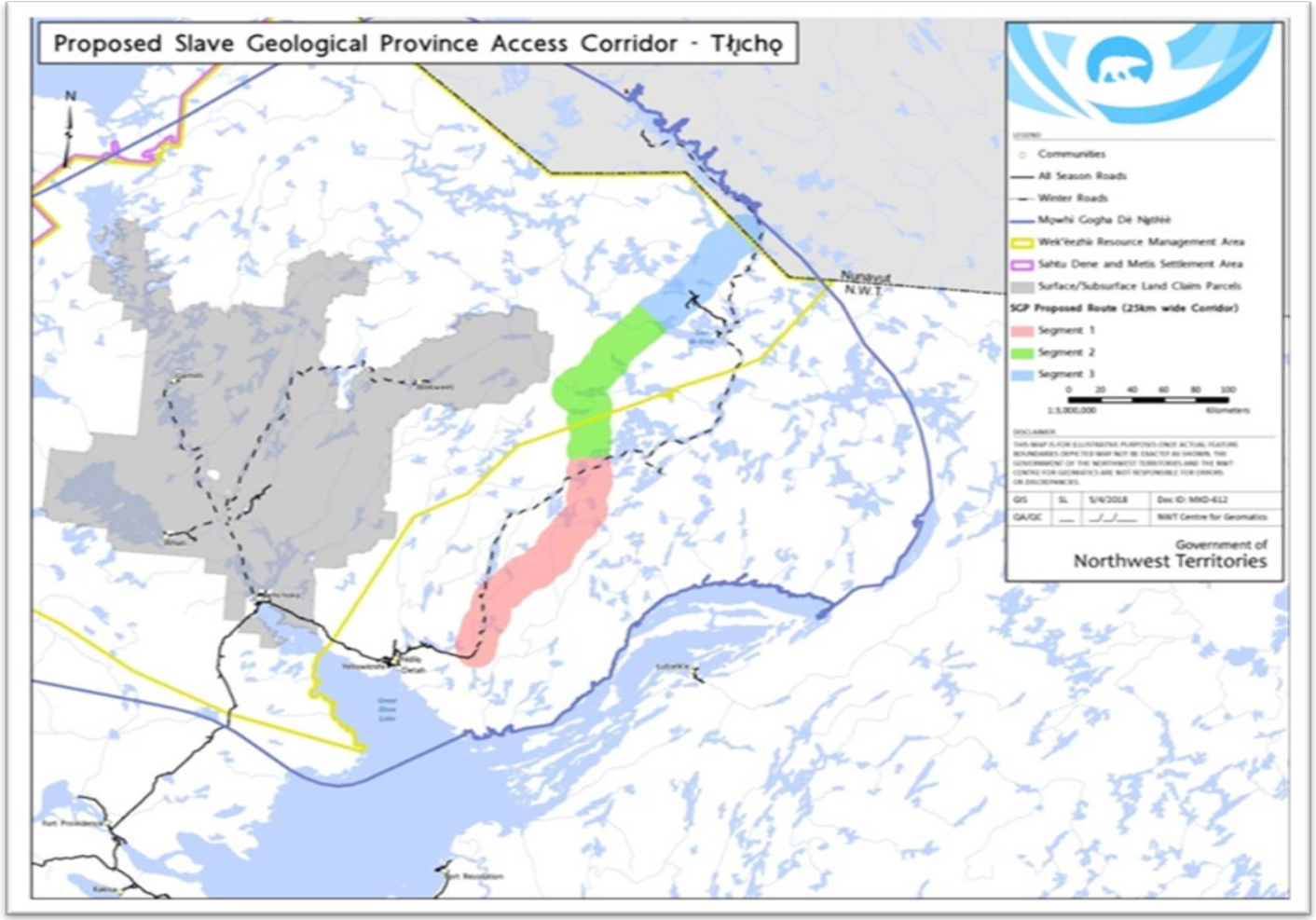


Government of
Northwest Territories

Slave Geological Province Corridor - Overview

- Phased development approach
  - Tibbett Lake to Lockhart Lake
  - Lockhart Lake to Lac de Gras
  - Lac de Gras to Nunavut border
  - Environmental Assessment and Planning
  - Frank Channel Bridge Replacement

- $40 million investment under National Trade Corridors Fund 2019
- 2021 Field Programs
- Proposed RSEA



Government of
Northwest Territories

Slave Geological Province Corridor - Overview

- 2019 National Trade Corridors Fund - $40 Million
    - SGPC Environmental and Planning Studies

- 2021 National Trade Corridors Fund - $50 Million
    - Replacement of Frank Channel Bridge

- Total Funding $90 Million – 75% ($60 M) Federal Funding / 25% ($20 M) GNWT Funding

Frank Channel Bridge

- Located at km 243 on NWT Highway 3, near Behchoko
- $50 million Funding under National Trade Corridors Fund 2021

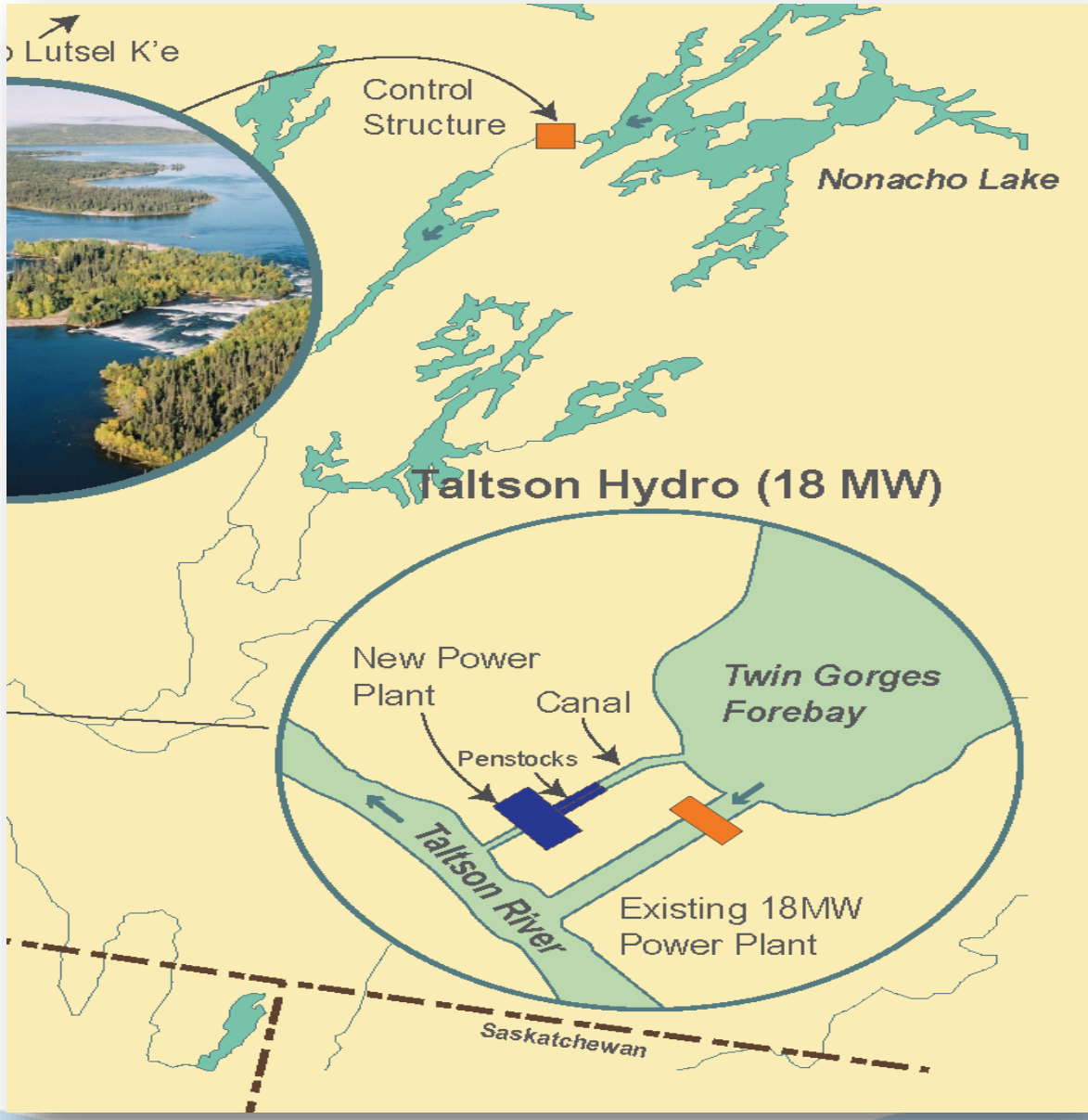
Government of
Northwest Territories

Taltson Hydro Expansion Project - Overview

- 18 MW Existing Facility which supplies power to communities in the South Slave

Three Project Phases:

- Add 60MW of generation capacity, connect two NWT Hydro Systems (Phase 1 – current project)
- Provide clean energy to the Slave Geological Province and resource sector (Phase 2)
- Connect the NWT electrical grid to the rest of Canada (Phase 3 – long-term)

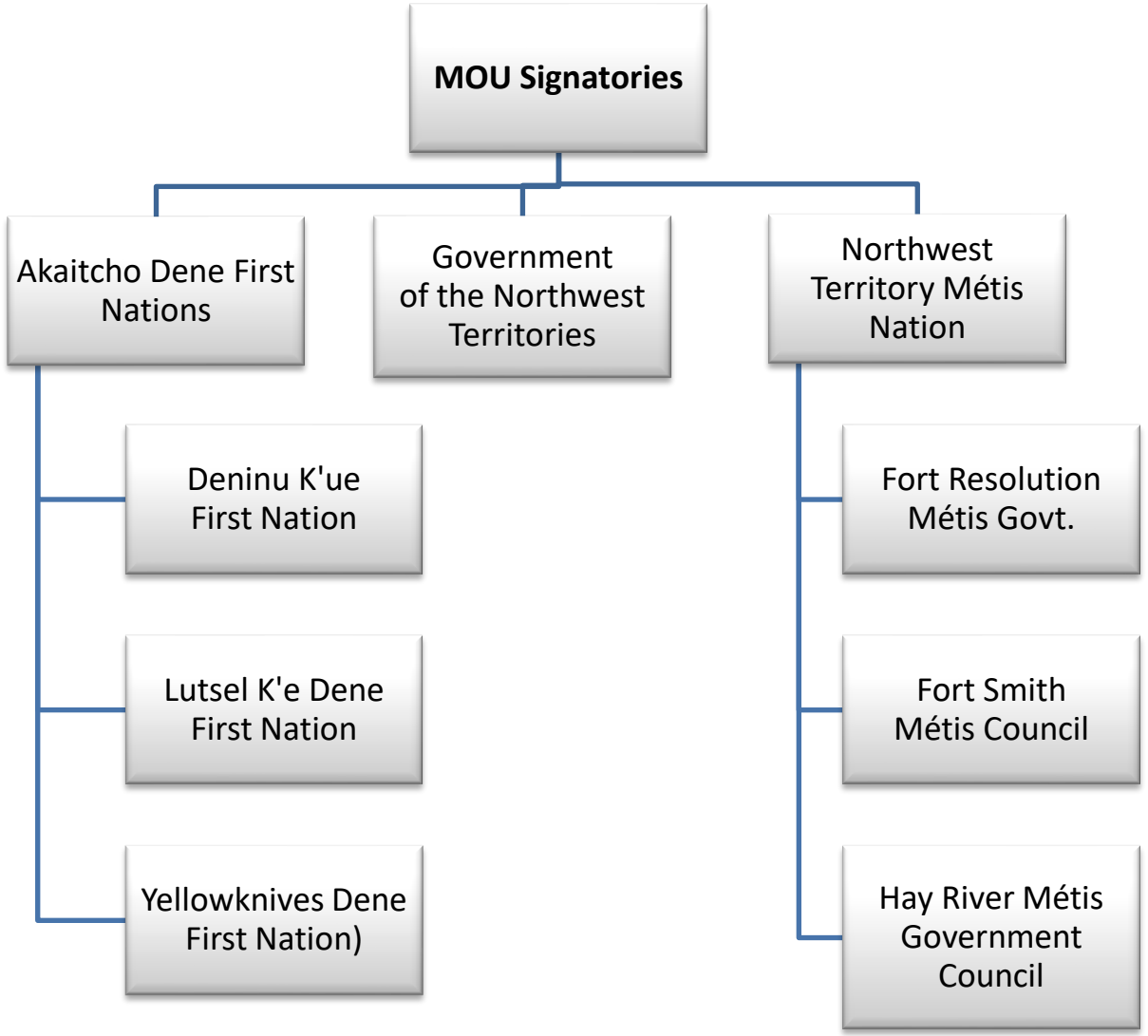


Taltson Hydro Expansion Project - Overview

- 3 year Grant with CIRNAC commenced 2019/20
- $18M – 100% funded
- Intended to support Feasibility stage work on the Taltson Hydro Expansion with a focus on:
    - Commercial Structure discussions, advancement of an MOU with Indigenous partners, technical work on Transmission Line Routing options
- Main focus over last two years has been the Indigenous Partnership, business case development and T-Line related work

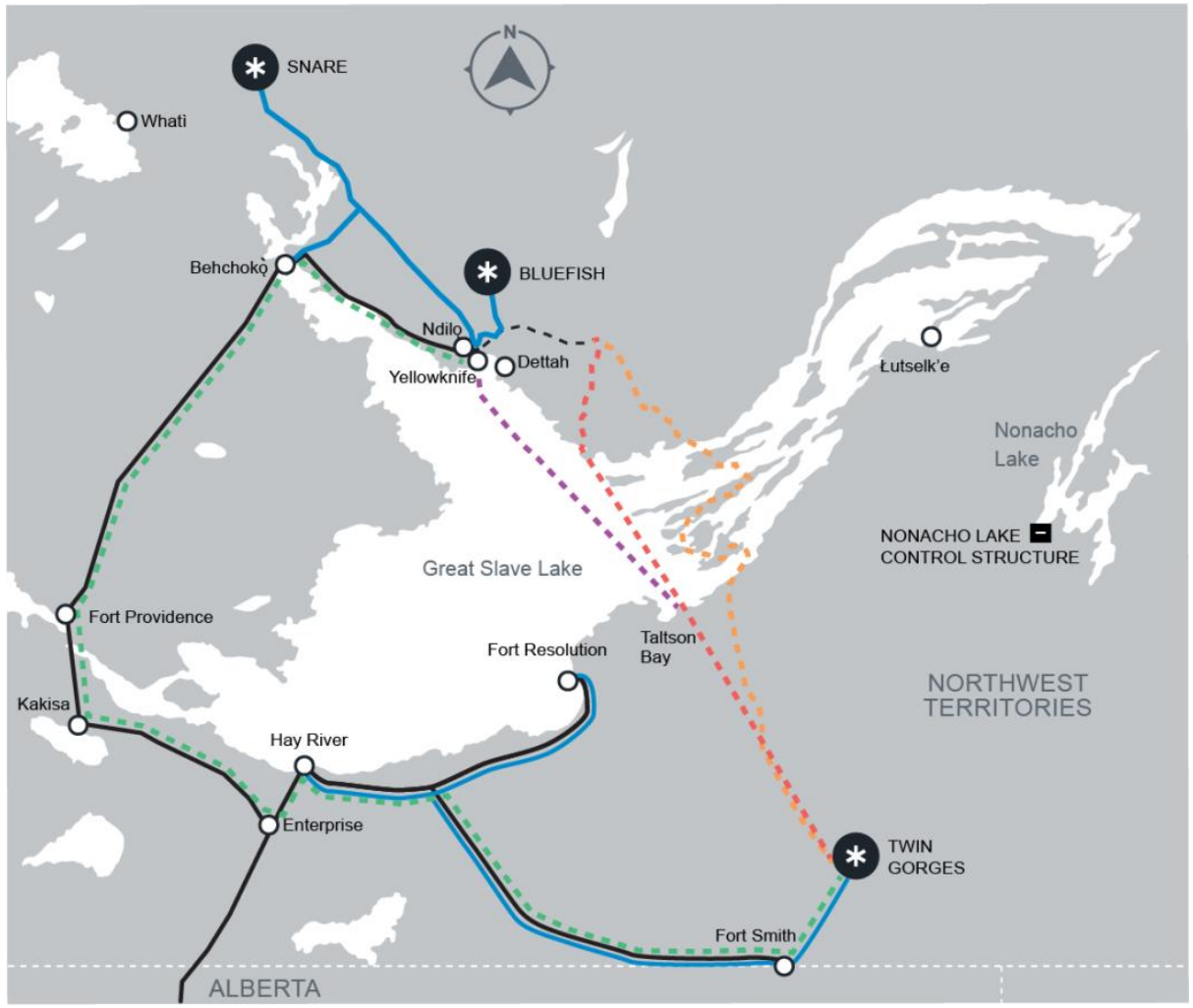
Taltson Hydro Expansion Project - Memorandum of Understanding

- MOU established with the ADFN and NWTMN in June 2021
- Project partners are continuing to progress the project



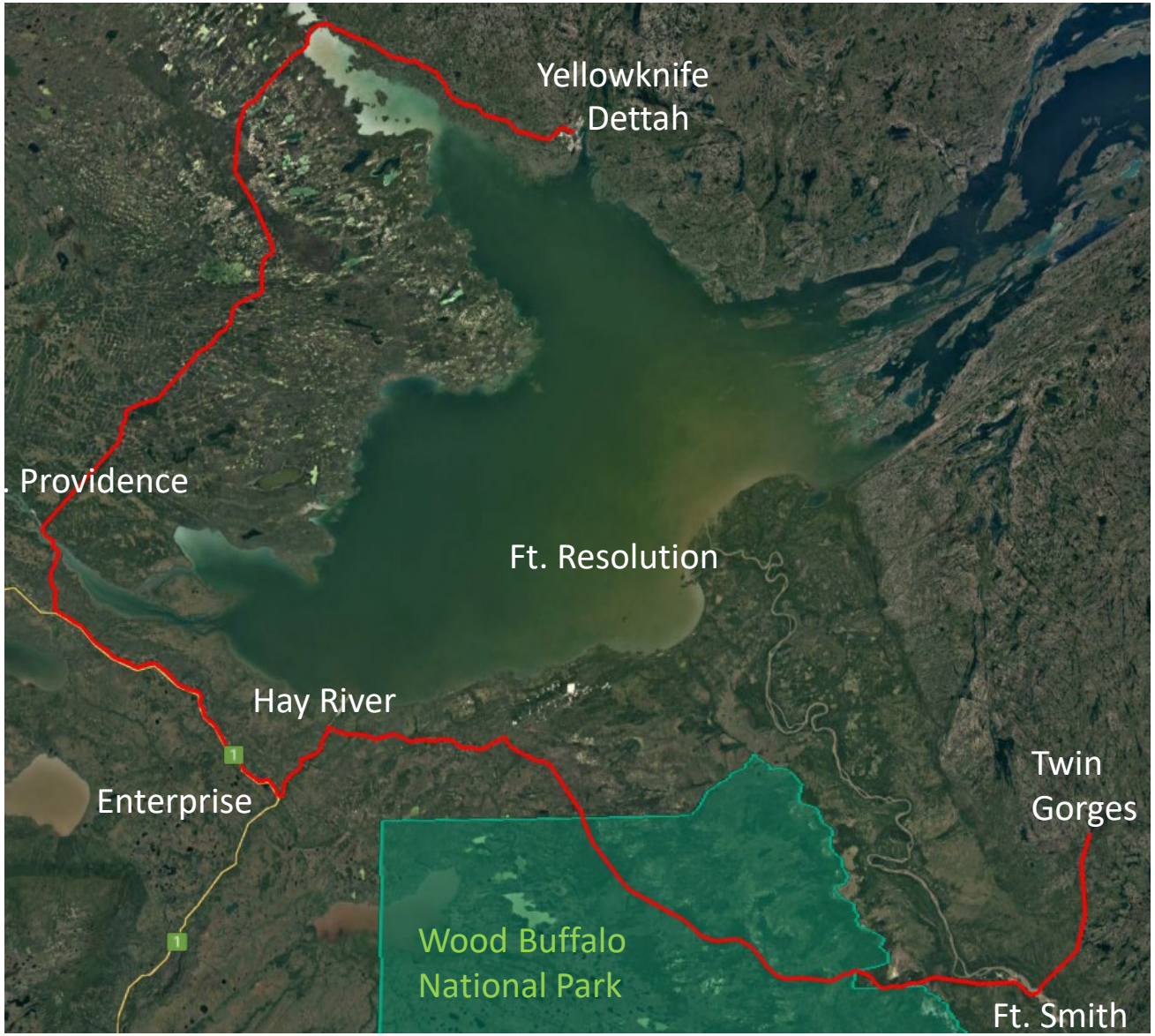
Taltson Hydro Expansion Project - Transmission Line Routing Options

Routing Options	Overhead (km)	Submarine Cable (km)	Total (km)
WGSL Route (Green)	805	-	805
Direct to Yellowknife (purple)	160	160	320
Via Gros Cap (Red)	250	120	370
Simpson Islands Route (Orange)	382	8	390



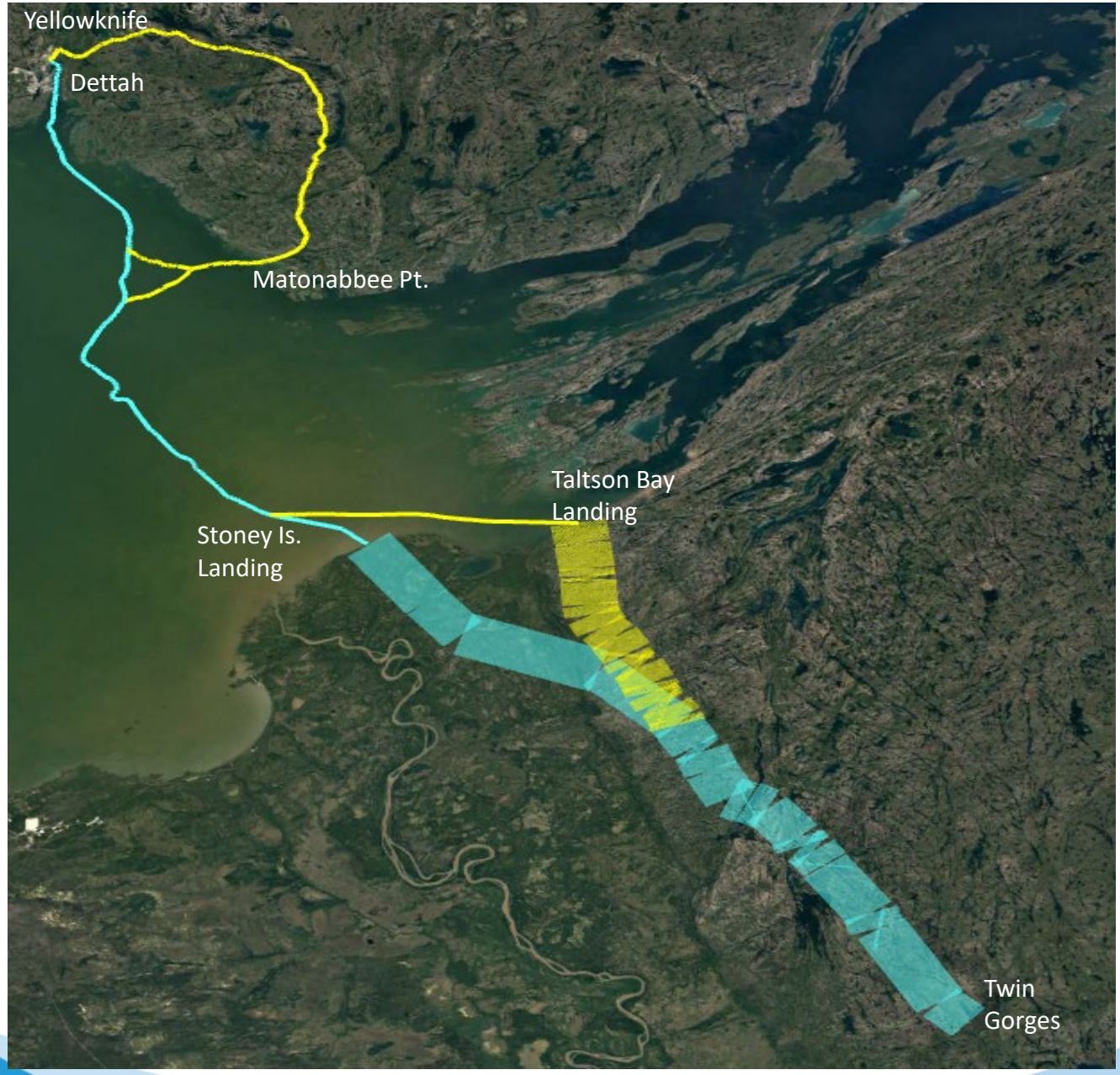
Western Great Slave Lake (WGSL) Route

- Extremely long overhead line (805km)
- Mostly follows existing highway corridors
- Passes through Wood Buffalo National Park
- Two major crossings at Slave and Mackenzie rivers.



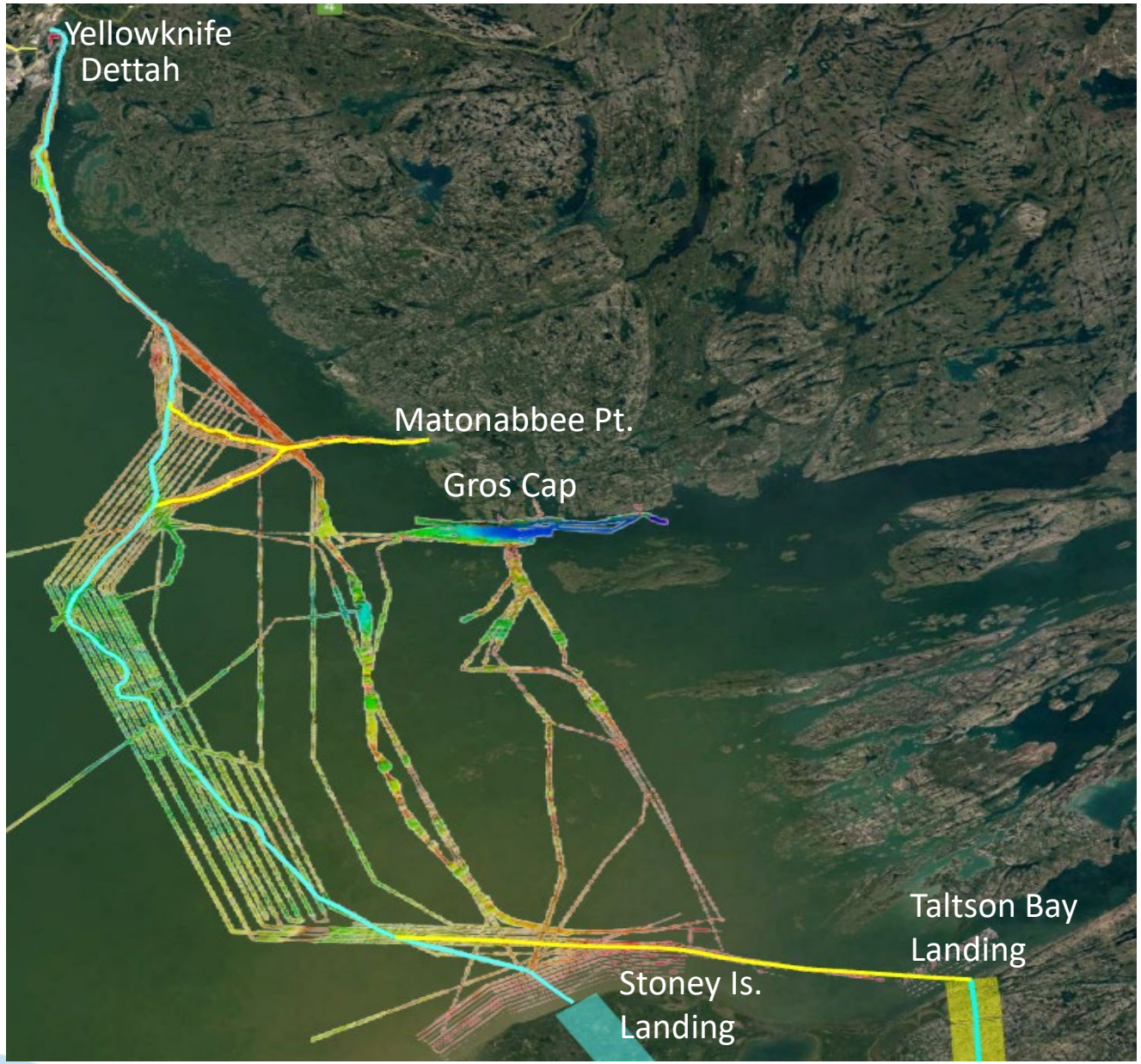
Direct to Yellowknife and Via Gros Cap Routes (Submarine Cable Route)

- Remote overhead line from Twin Gorges to Stoney Is. Landing area
- Direct submarine Cable route (Blue) to Yellowknife
- Lakebed has areas suitable for cable laying
- Two seasons scheduled for delivery and cable lay
- Submarine Cable via Arctic Ocean and Mackenzie River.
- Hay River would serve as main shipping hub



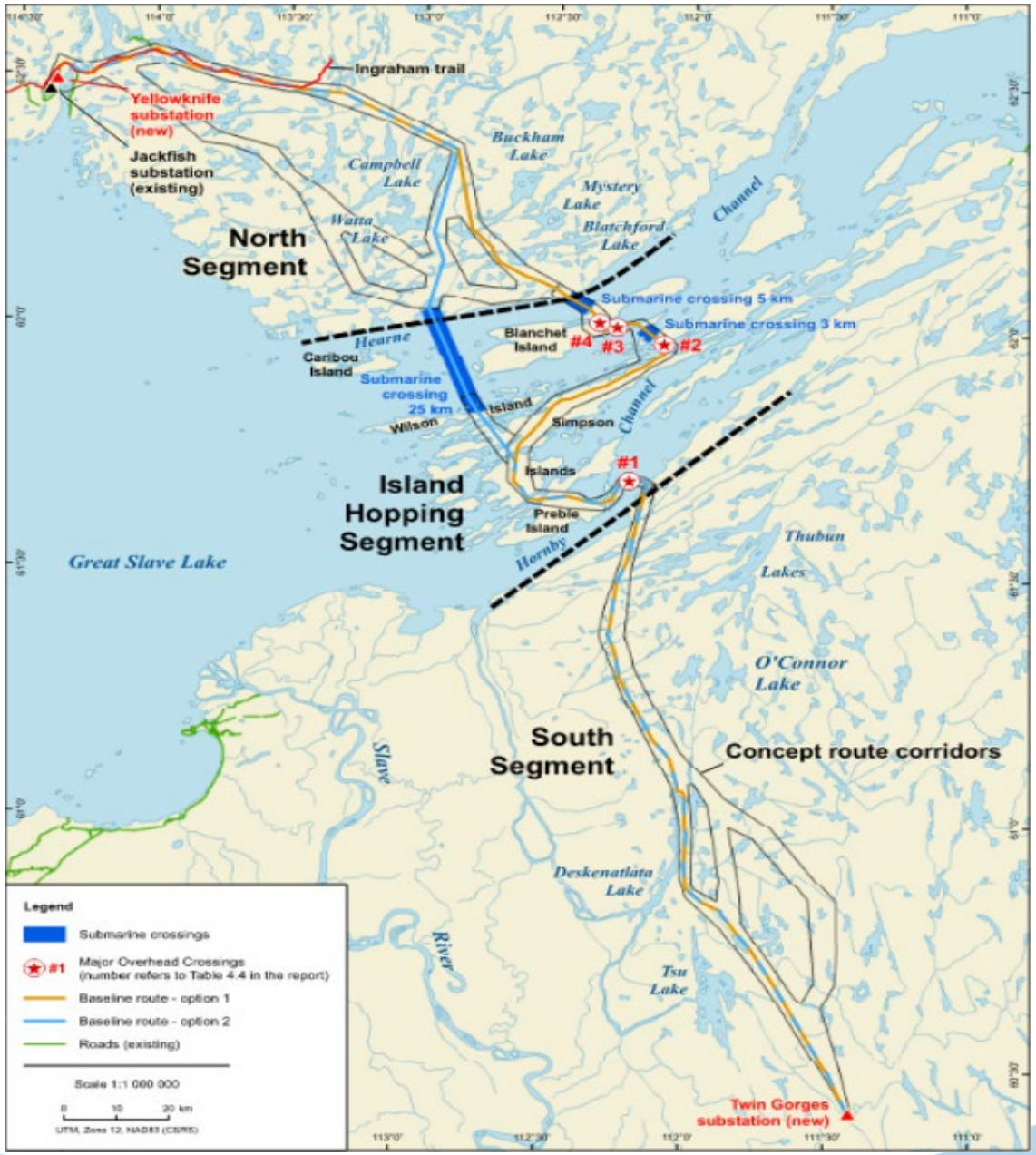
Lake Bed Survey – Great Slave Lake

- 65 Days spent on Great Slave Lake
- Much of Great Slave Lake is uncharted.
- Identified lakebed characteristics including hazards
- Concept cable routes (blue/yellow lines)
- Information gathered will inform technical work on the submarine route.



Simpson Island Route

- Remote overhead transmission with long crossings
- Short submarine cable sections.
- Hearne Channel is up to 320m deep.
- Extremely tall towers (125m) for long crossings
- Specialist helicopter construction



QUESTIONS?