

# TALTSON HYDROELECTRIC EXPANSION PROJECT

## Project Description Overview

Prepared for:

**Yellowknife Scoping Sessions**

**December 7, 2007**



Presented by:

**DEZÉ ENERGY CORPORATION**

# TALTSON HYDROELECTRIC EXPANSION PROJECT

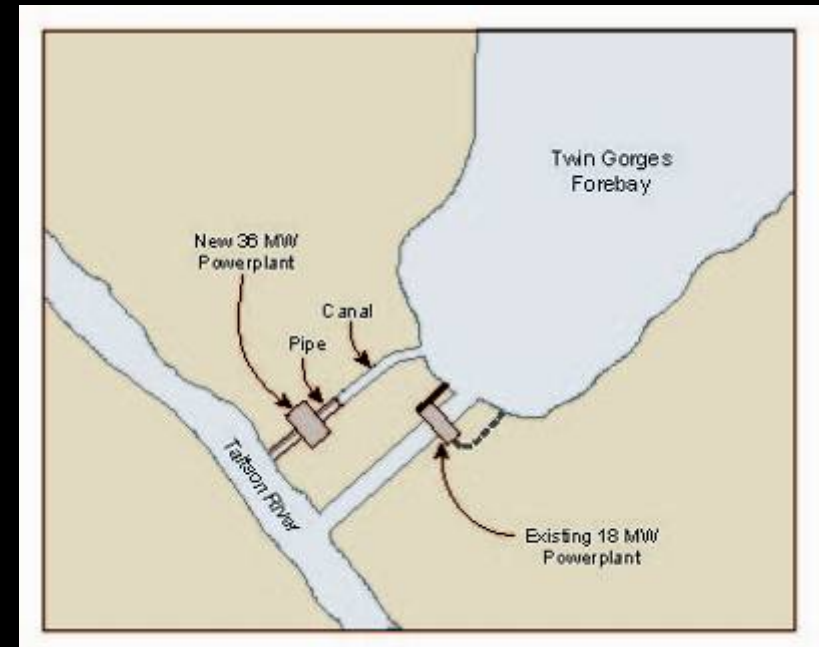
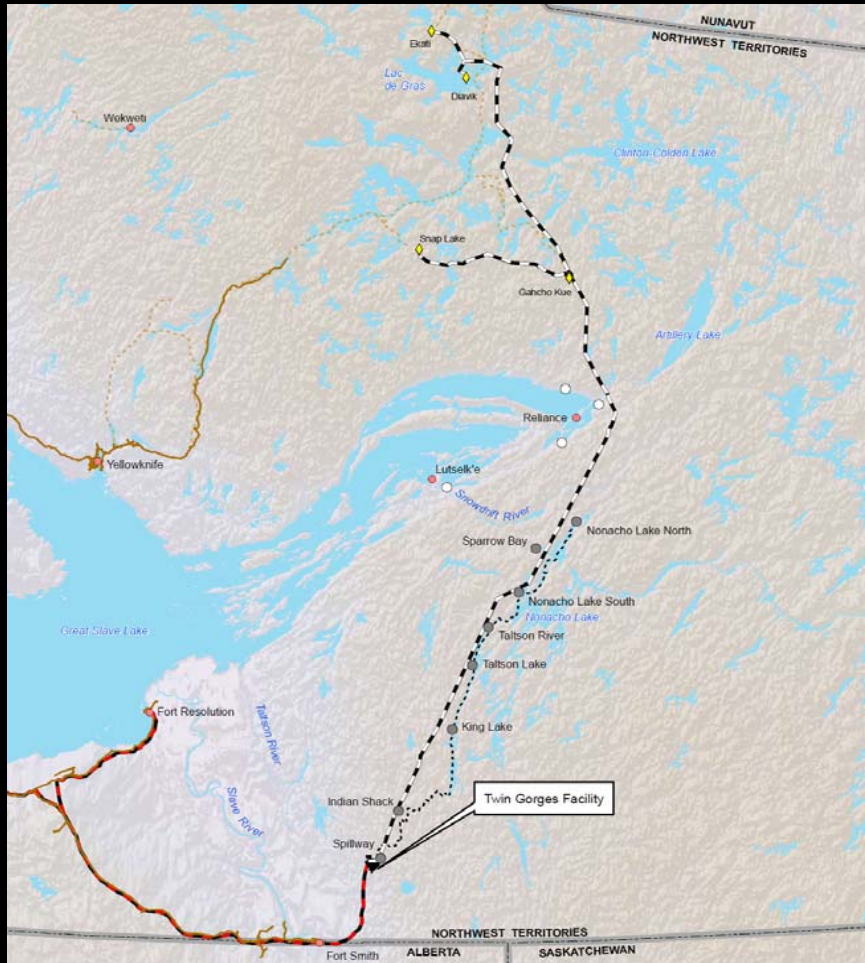
## Introduction

- Presentation follows Project Description
- Please ask questions and clarifications during presentation



# INTRODUCTION AND BACKGROUND

## Expansion Project Key Components and Output



36 MW new (54 MW Total) hydroelectric plant

690 km of new transmission line

420 GWh per year of renewable electricity to existing customers and proposed and existing diamond mines

No increase in flooding



# CORPORATE PROFILE

## Dezé Energy Corporation

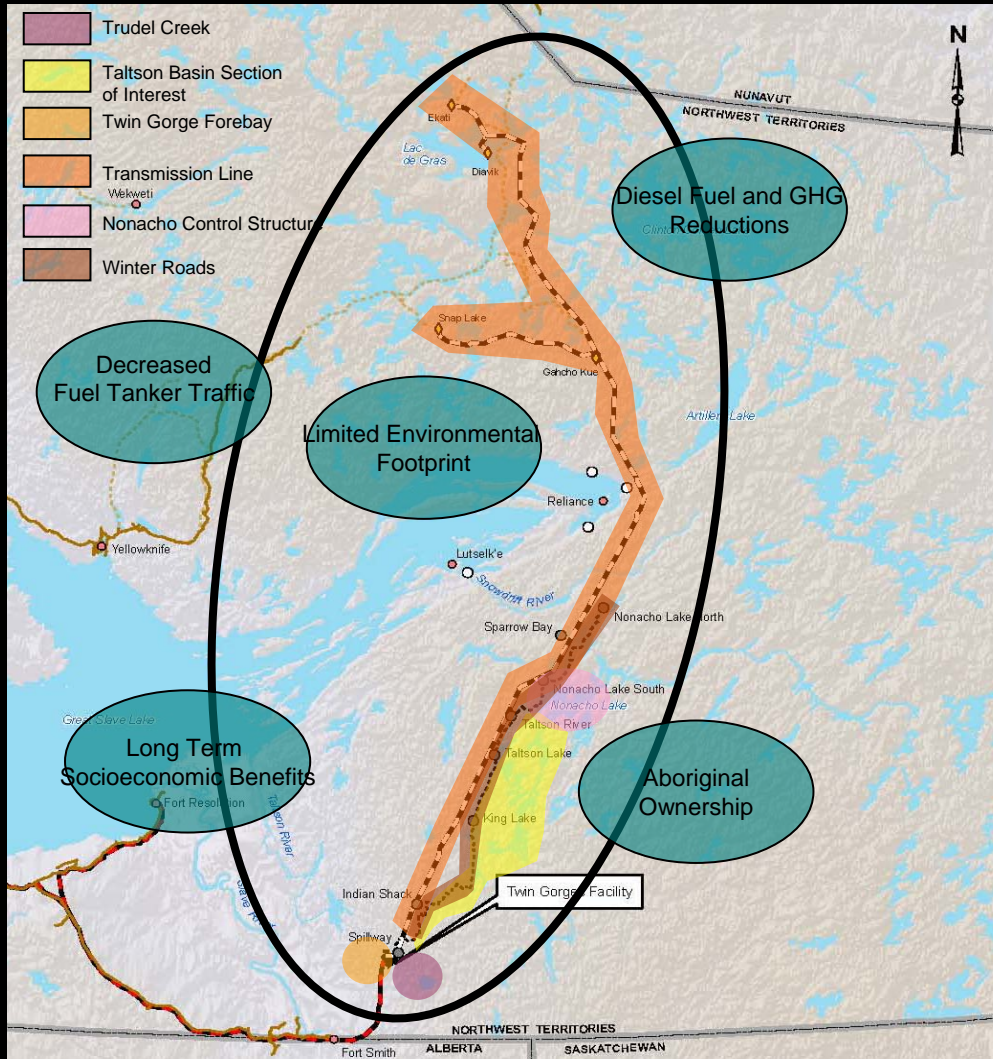
The Taltson Expansion Project is proposed by the Dezé Energy Corporation.

The Dezé Energy Corporation is equally owned by the:

Akaitcho Energy Corporation  
Métis Energy Company  
NWT Energy Corporation (03) Ltd.

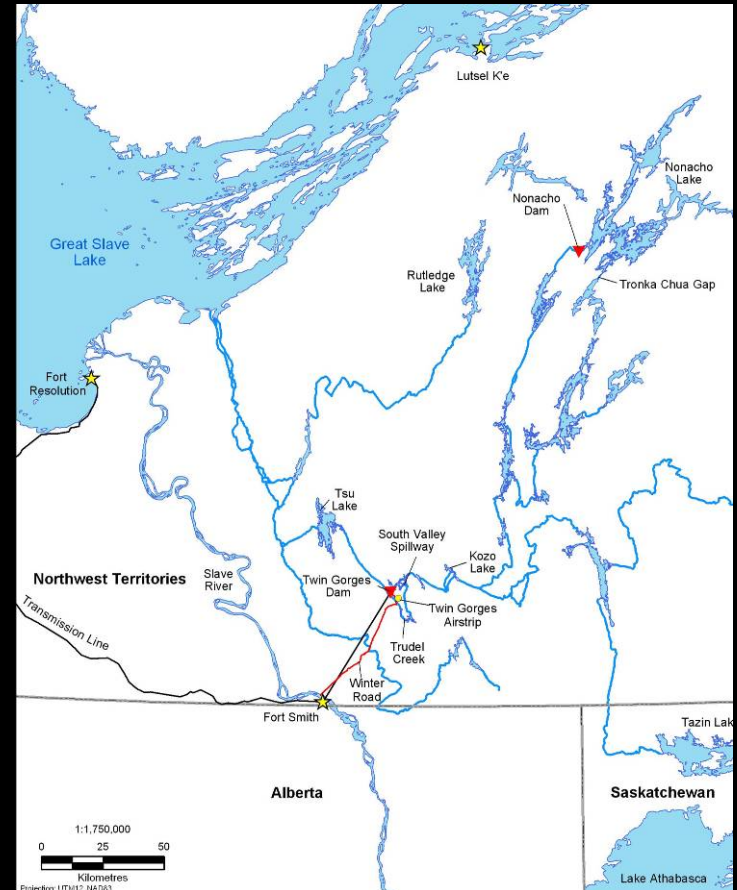
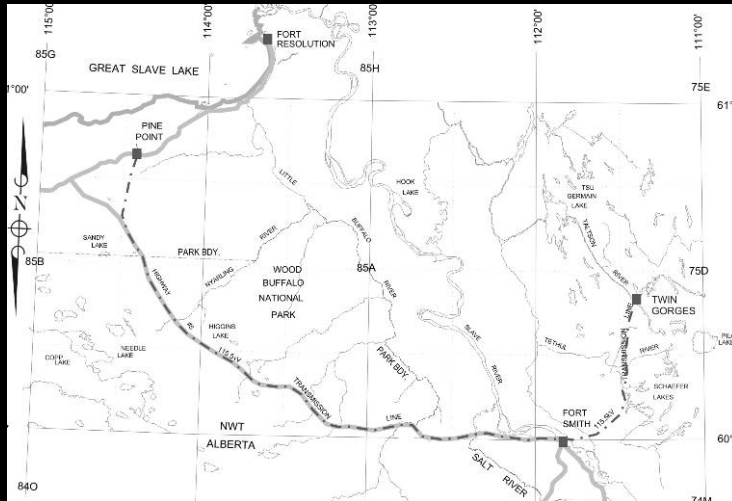


# PROJECT PURPOSE AND RATIONALE



# TALTSON BASIN AND EXISTING POWER PLANT

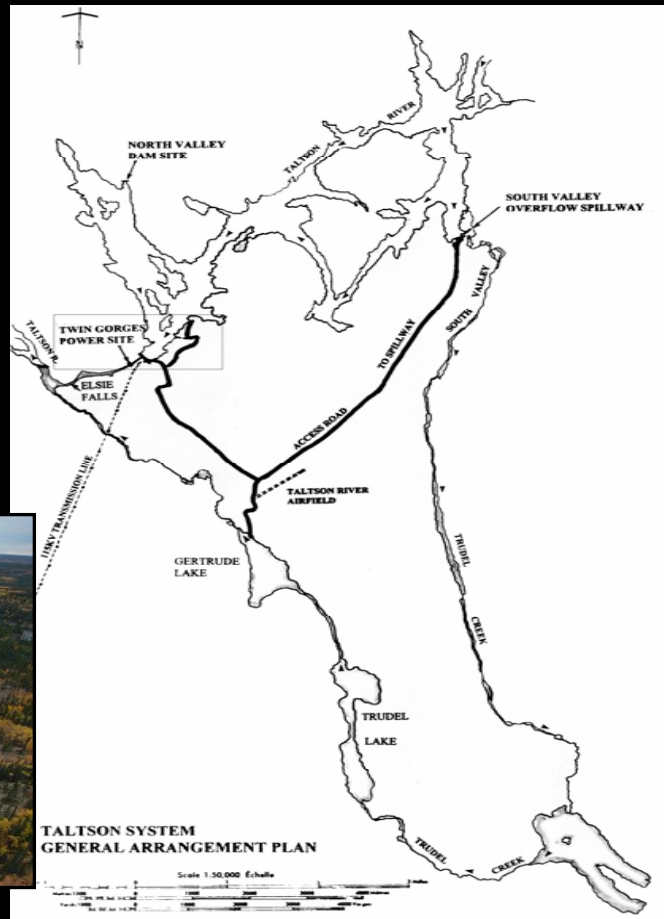
## Taltson Basin and Transmission Line





# TALTSON BASIN AND EXISTING POWER PLANT

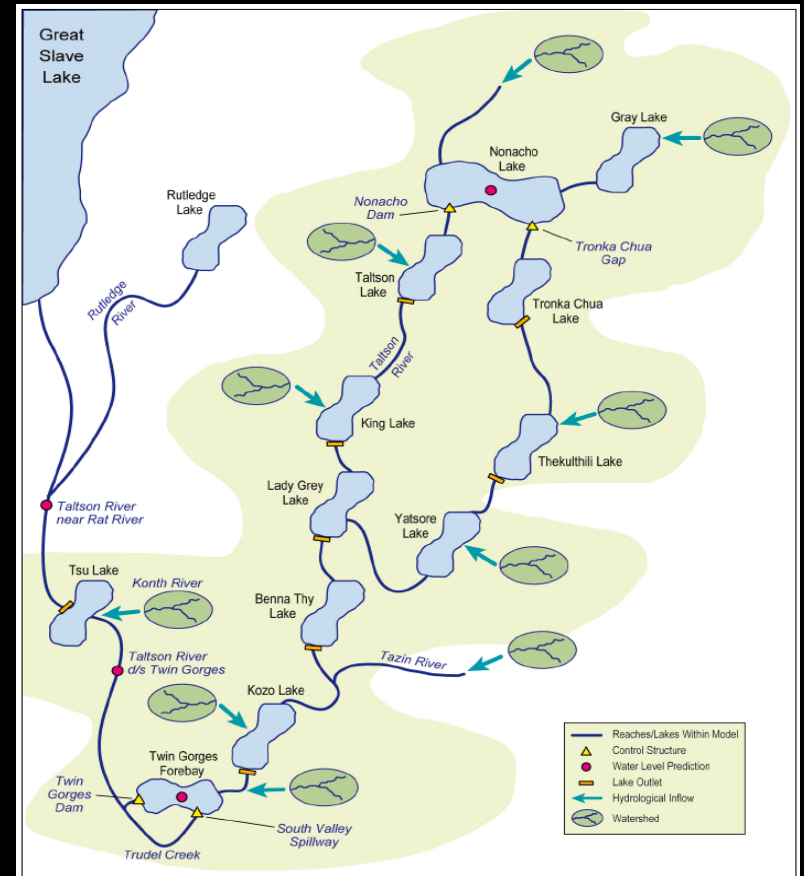
## Twin Gorges and South Valley Spillway



# EXPANSION PROJECT HYDROLOGICAL BASIS

## Taltson Basin Hydrology

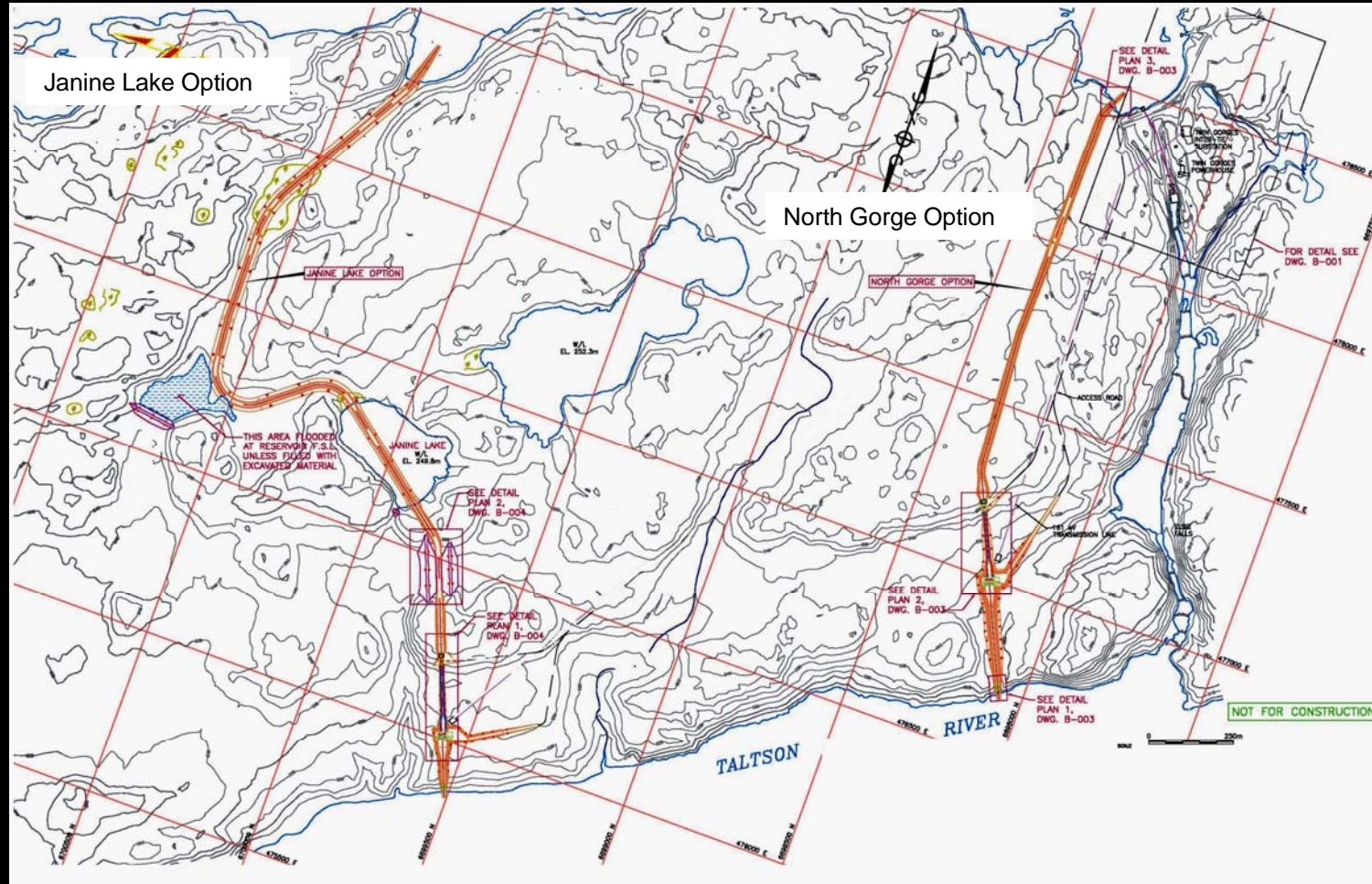
- Taltson River is a managed system
- Nonacho Lake connected to the north end of the Taltson River through a slow moving system of river reaches and lakes.
- At existing Twin Gorges generating facility, Taltson River flows through the generating plant and excess water is spilled to Trudel Creek.
- Trudel Creek (33 km) joins the Taltson River immediately upstream of the generating plant tailrace.





# PROJECT CONCEPTS AND ALTERNATIVES

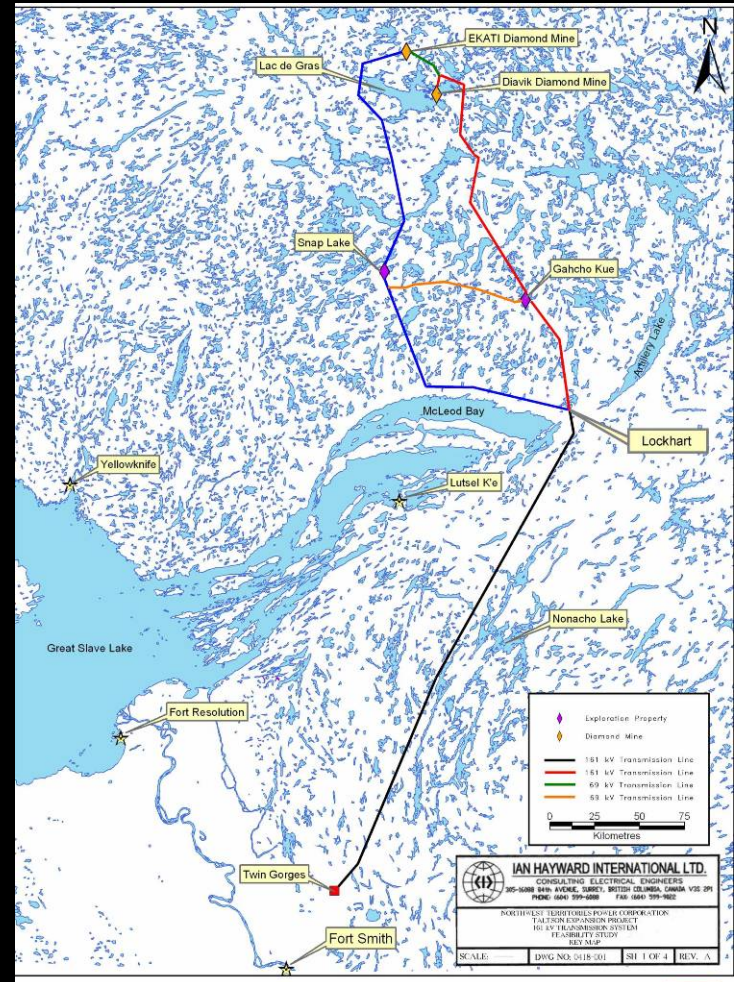
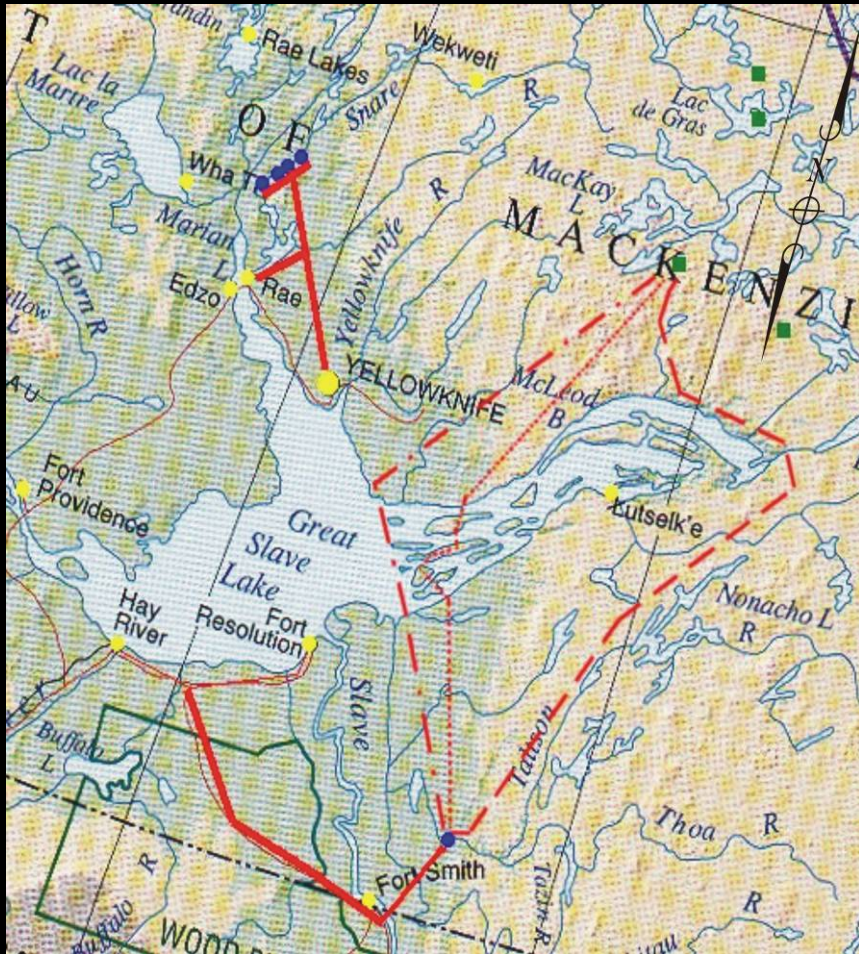
## Power Generation Concepts and Alternatives





# PROJECT CONCEPTS AND ALTERNATIVES

## Transmission Line Alternatives





# PREFERRED PROJECT

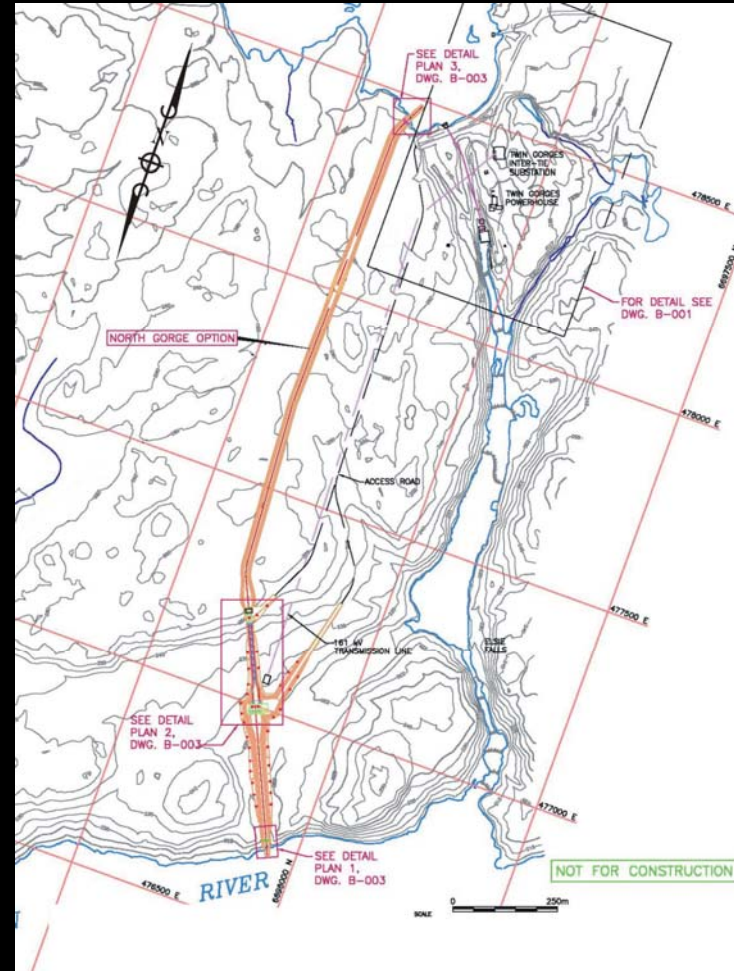
## North Gorge Schematic





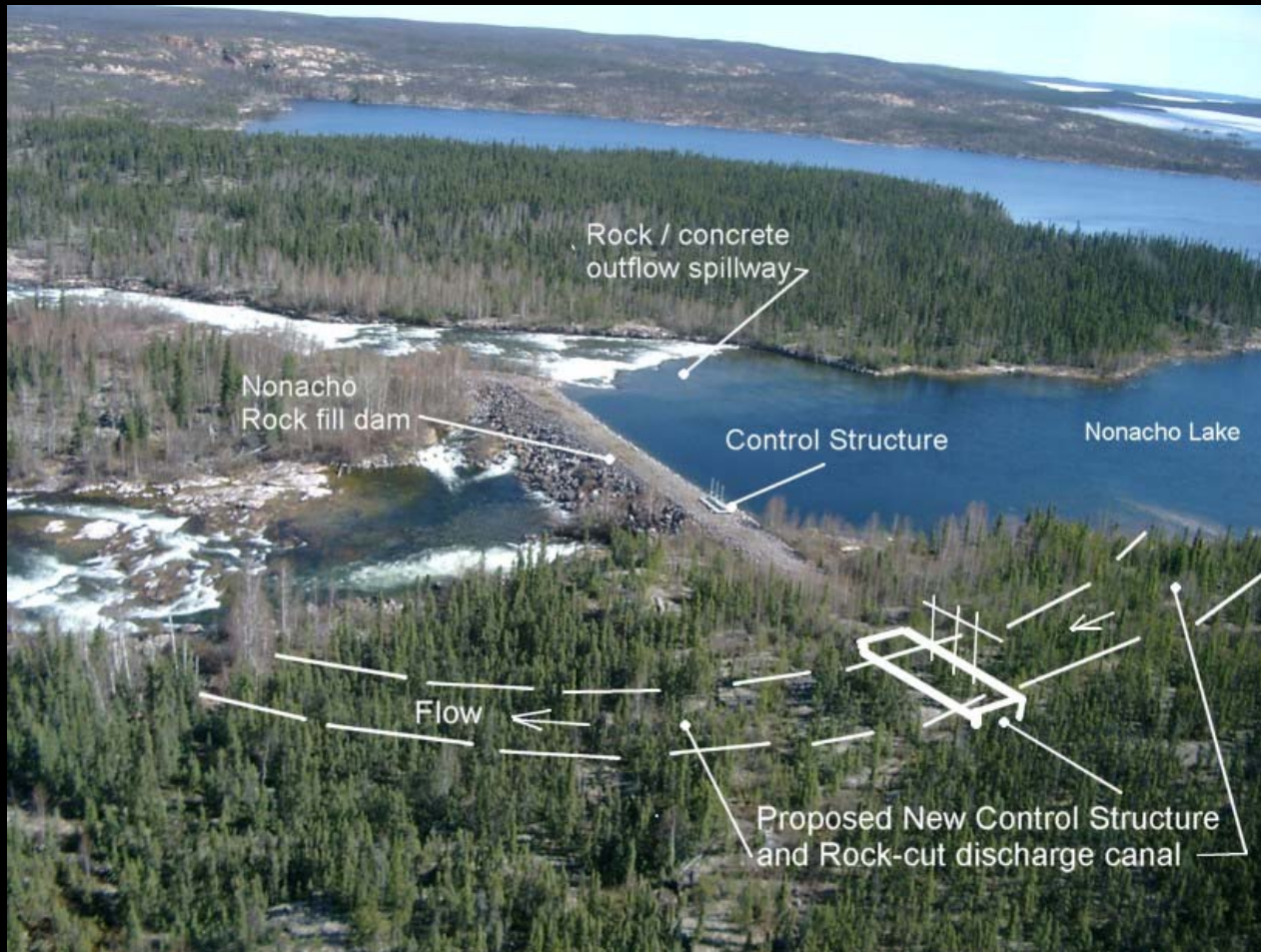
# PREFERRED PROJECT

## North Gorge Model and Design



# PREFERRED PROJECT

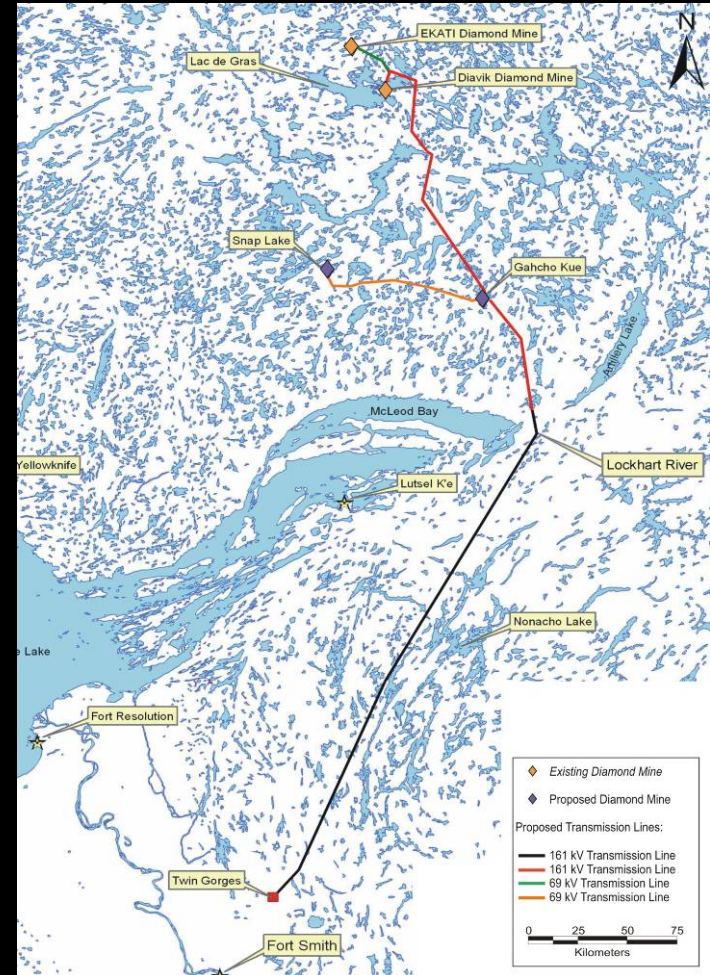
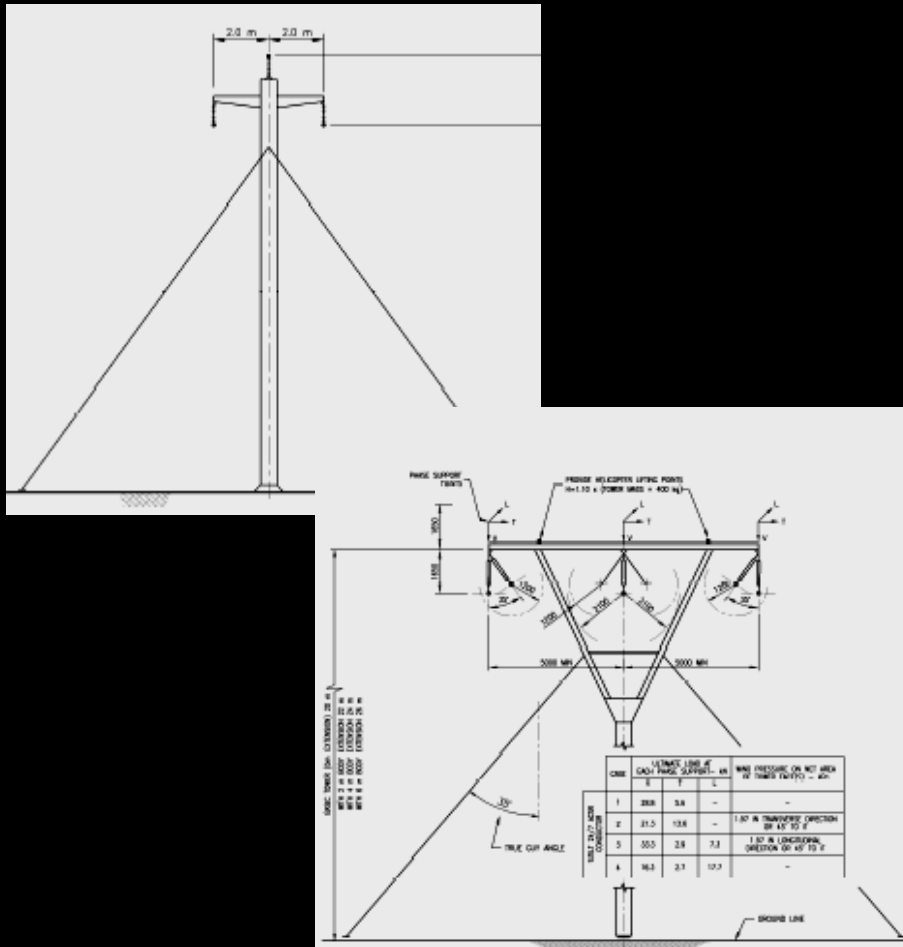
## Nonacho Control Structure





# PREFERRED PROJECT

## Transmission Line





# PROJECT OPERATIONS

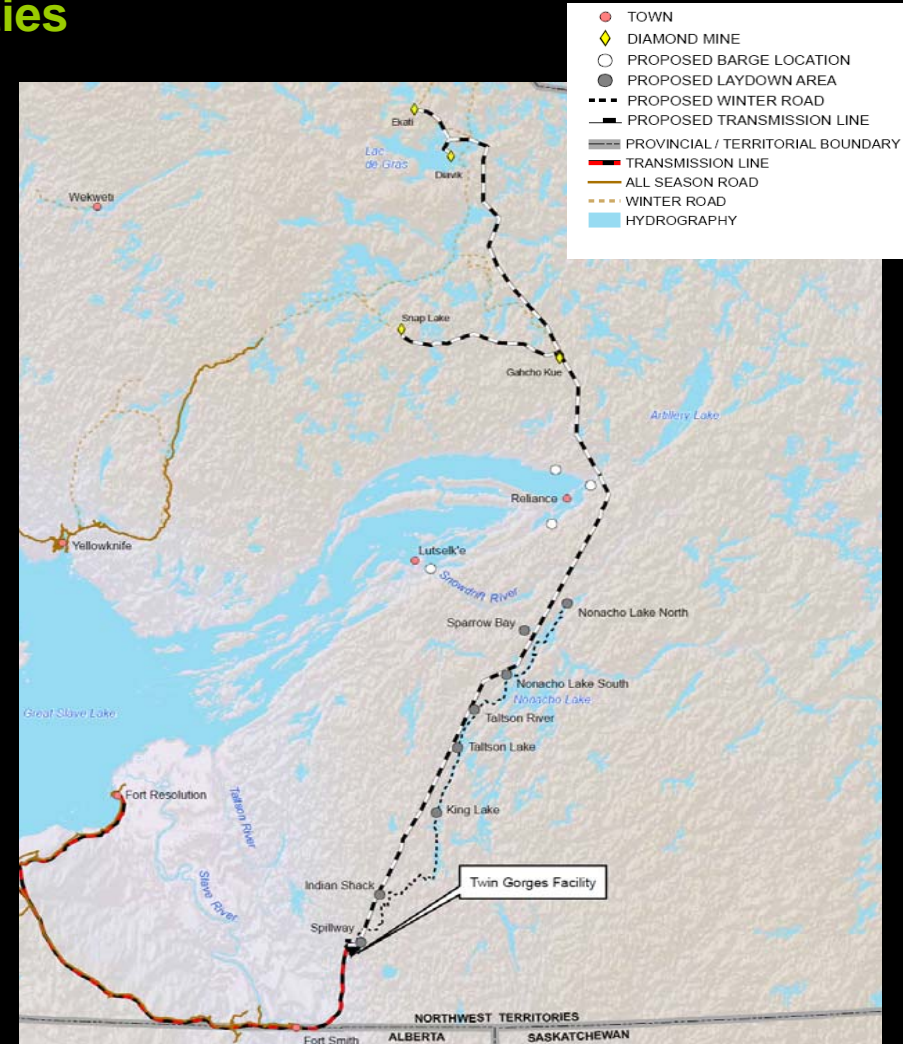
## Transmission Line



# PROJECT CONSTRUCTION

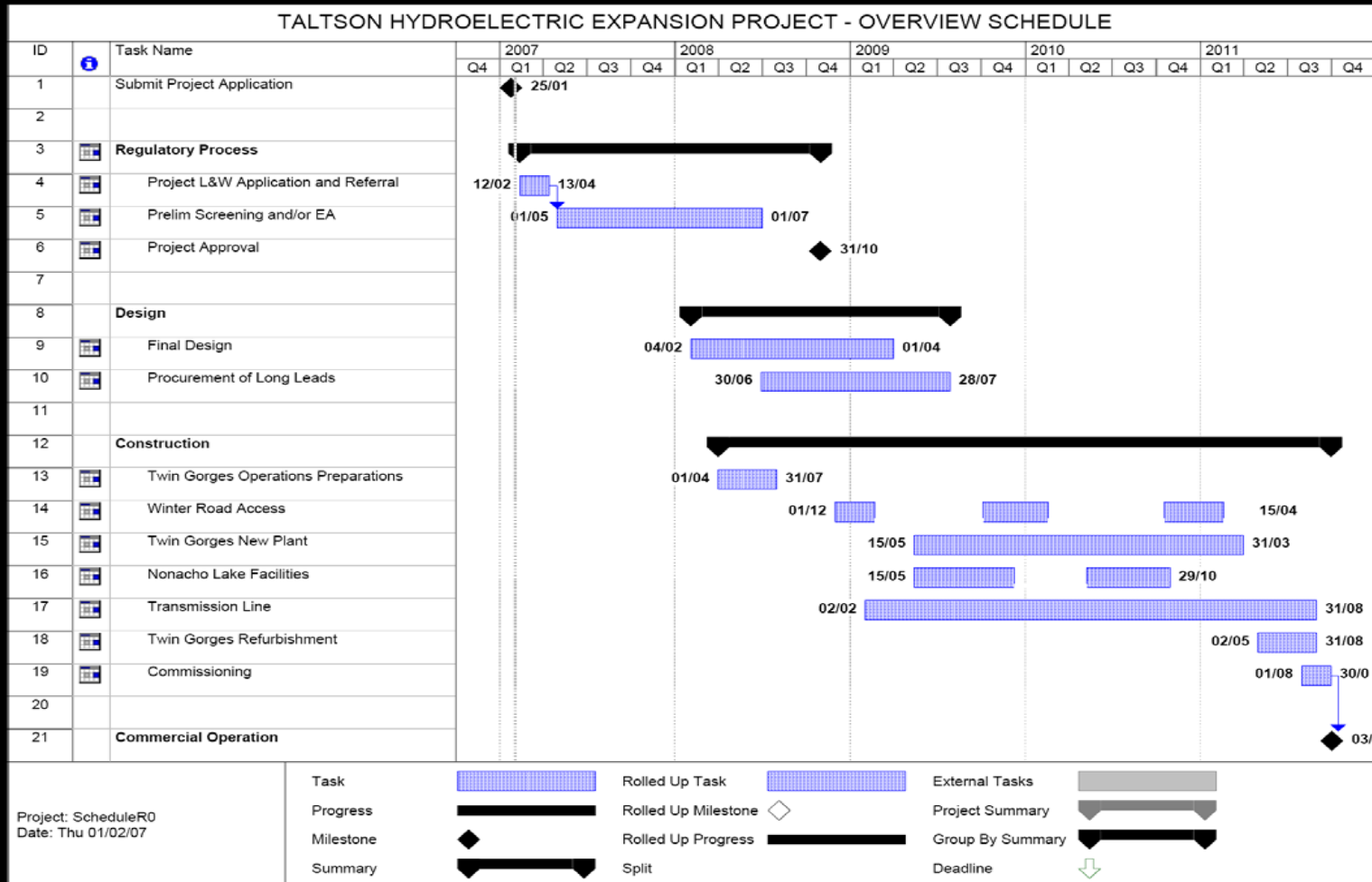
## Activities

- Re-open temporary winter road from Ft. Smith to Twin Gorges
- New temporary winter road Twin Gorges to Nonacho Lake
- 8 staging areas along new winter road
- 4 barge landings and staging areas
- New temporary camp at Nonacho Lake; expanded camp at TG; and 2 floating camps at barge landings
- Transmission line helicopter construction
- Drilling & blasting of North Gorge and Nonacho Control Structure



# PROJECT CONSTRUCTION

## Schedule





# RESOURCES

## Construction Resources (skilled & unskilled):

- Twin Gorges Power Plant ~150 positions
- Nonacho Lake ~65 positions
- Transmission Line ~140 positions
- Substations ~45 positions

## Operational Resources:

Long-term Operations/Maintenance ~10 positions

## Indirect Employment:

- Supply and service industries
- Freight and fuel trucking
- Aerial transportation
- Logistical support

# NEXT STEPS

- Continue with baseline studies
- Meet with working groups to review details of studies to date, identify areas of interest, and confirm study programs
- On-going participation with engineering and design team to identify and incorporate impact mitigation measures, where feasible
- Conduct environmental impact assessment



# Masi Cho!

## QUESTIONS AND COMMENTS!!

