

Location of Lalor Concentrator Site

Anderson TIA

Stall Lake Concentrator

- Lalor Advanced Exploration Project (AEP) approved on April 9, 2010 and is currently under development
- Hudbay applied for environmental licence for Lalor Mine on May 4, 2012 and licence application is currently under regulatory review
- Expect Lalor AEP to be concluded and Lalor Mine to be fully constructed and operational in fall 2014
- The Lalor Concentrator will be utilized to process ore from the Lalor Mine



Lalor Site, Looking West (March 2012)

- Two options were considered for the concentration of ore from Lalor site:
- Option 1: Refurbish existing concentrator at Stall Lake, which had a copper circuit capable of processing ore from the Lalor Mine. However, significant upgrades and refurbishment would be required
- Option 2: Build a new concentrator at the Lalor Mine site capable of processing zinc, copper and gold
- Both options would require improvements to the Anderson TIA

Advantages of a New Concentrator

Hudbay has decided to propose a new concentrator (Option 2) because:

- Eliminates the 15 km ore haul
 - Reduces traffic and potential for accidents
 - Reduces operating cost
- Increased production rate possible
 - Maximum capacity of the old concentrator would be 3,500 tpd
 - New concentrator designed for 4,500 tpd with upside potential



- Allows for production of paste backfill
 - Best ground support system for the mine
 - Reduces amount of tailings sent to impoundment area
 - Improves ore recovery
- Implementation of newest technologies
 - new mill drive systems
 - process control system
 - increased use of recycled water and reduced use of fresh water



Concentrator Facility

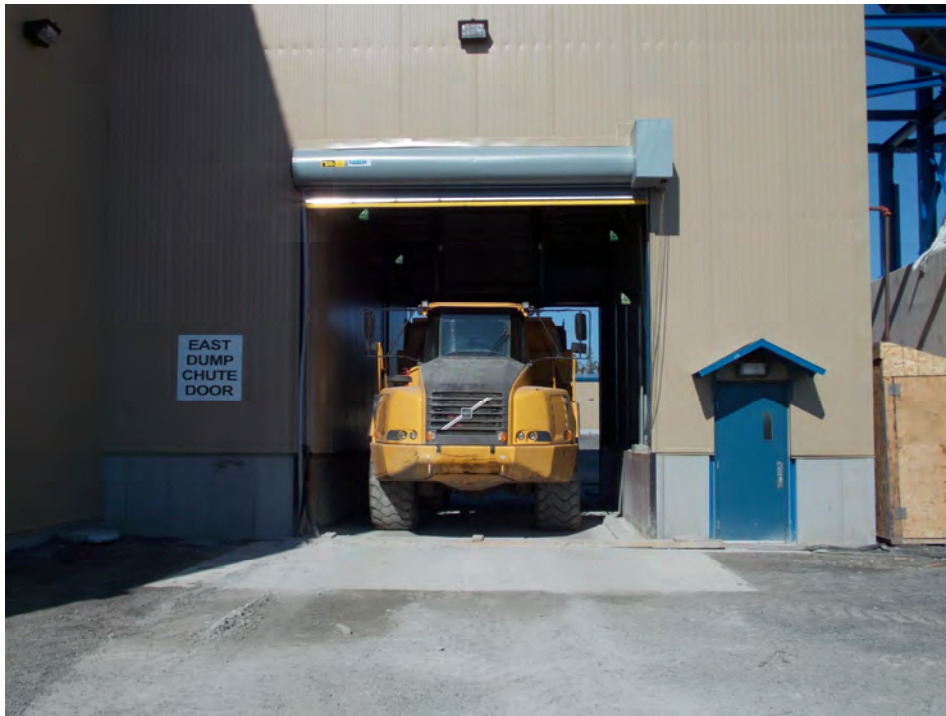
Concentrator facility will be located in a cleared and partially leveled area north of Lalor AEP Headframe and Hoist House.



Lalor AEP Site, Looking NW

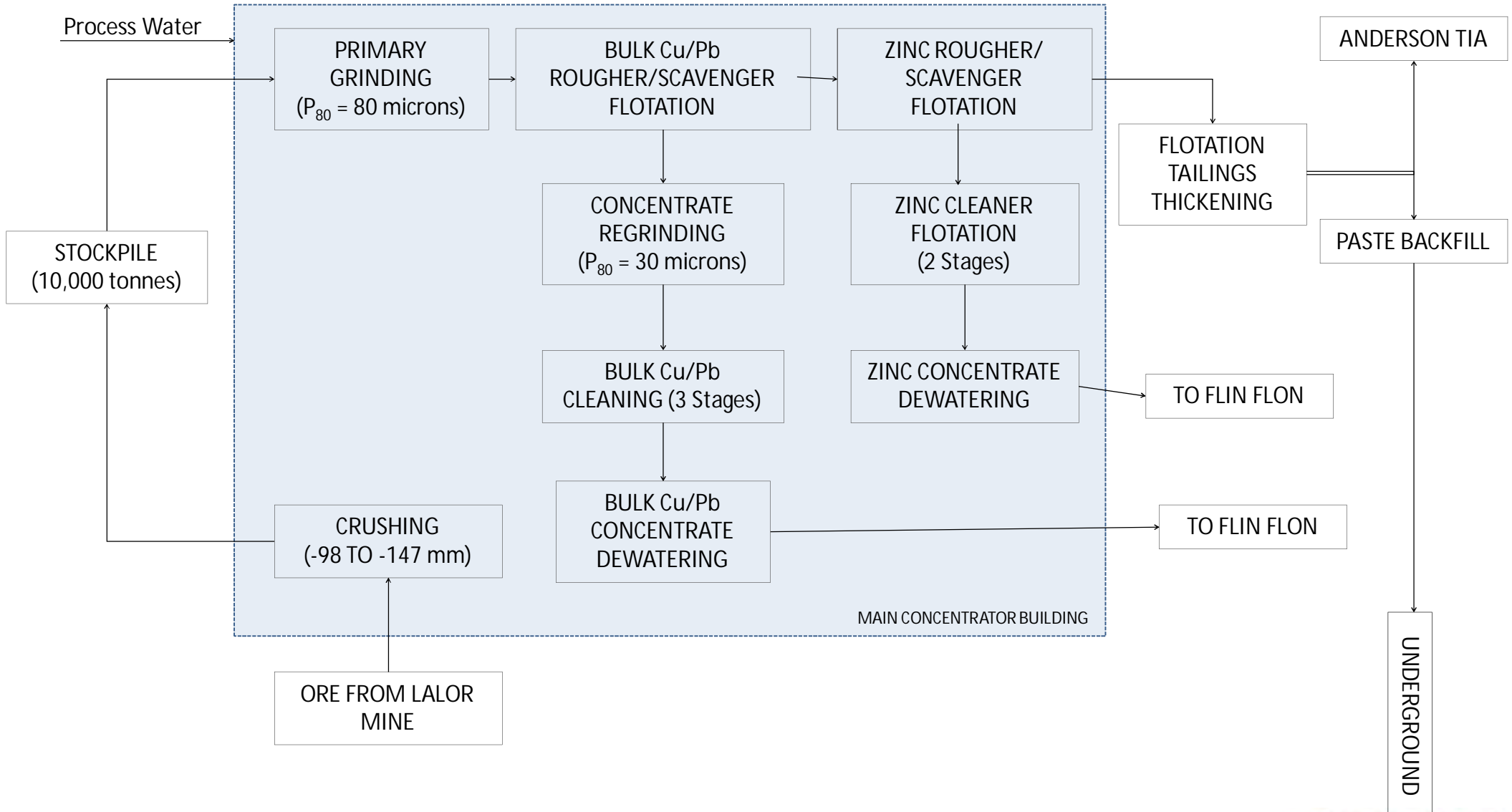


Future Concentrator Location, Looking North

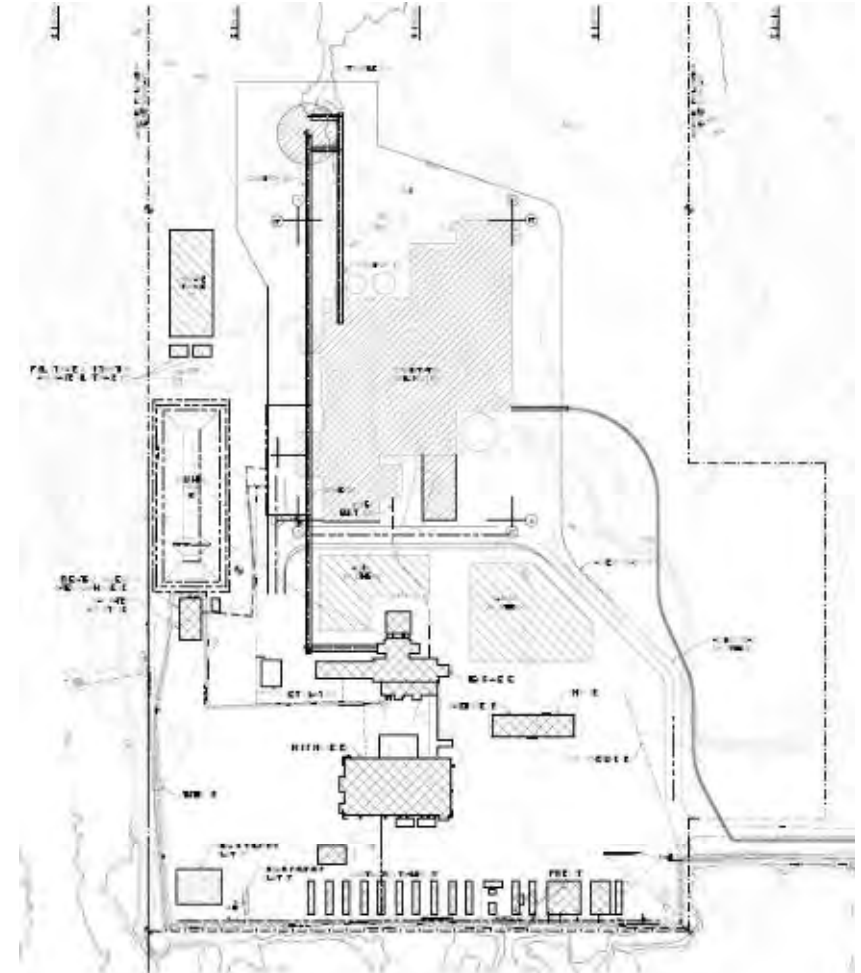


- The concentrator will operate 24/7 for 362 days per year
- Planned availability is 92%
 - This allows regular shutdowns for maintenance
- Planned daily throughput will be up to 4,500 tonnes
- Both copper and zinc concentrates will be trucked to Flin Flon;
 - Copper concentrates will be sold
 - Zinc concentrates will be refined in Flin Flon

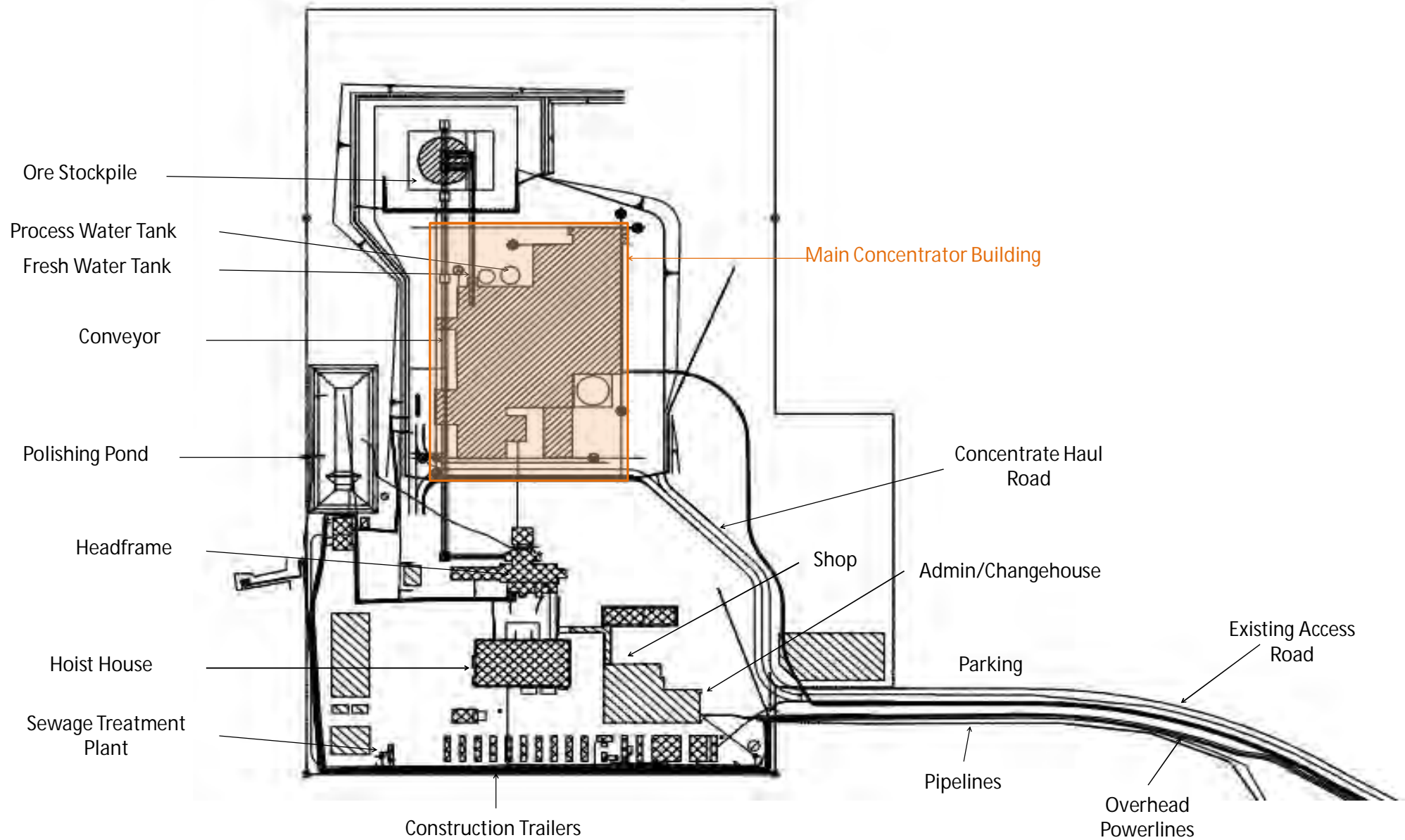
Process Overview



- Concentrator Facility will include:
 - main concentrator building,
 - crusher annex,
 - back-up diesel generator annex,
 - offices,
 - control room,
 - laboratories,
 - change houses and washrooms,
 - warehouse,
 - maintenance shops,
 - concentrate loadout facility,
 - upgrade to sewage treatment plant



Site Layout



Existing Infrastructure

- Facilities that currently support the Chisel North Mine and Lalor AEP will continue to be used:
 - Lalor Access Road
 - Lalor Water Treatment Plant
 - Chisel North Open Pit and Water Treatment Plant
 - Wastewater Pipeline to Chisel North WTP
 - Polishing Pond at Lalor Site
 - Chisel Electrical Substation
 - Flin Flon Metallurgical Complex



Chisel North Water Treatment Plant

- Plant currently treats discharge from the Chisel North Mine and natural water inflows to the Chisel Open Pit
- Wastewater from the mine and concentrator (including treated sewage) will be piped to the Chisel North Water Treatment Plant
- The estimated volume of total discharge to the Chisel Open Pit from the mine and concentrator is 73L/s, which is well within the treatment capacity of the Treatment Plant (peak rate of 101L/s)
- No upgrades to this facility are anticipated



Chisel North WTP with Chisel Open Pit in Background

Project Components

1. Concentrator Facility
(New)
2. Snow Lake Pumphouse
(Improvement)
3. Tailings, Re-Cycle and
Freshwater Pipelines
(New)
4. Realignment of PR 392
(MIT Project)
5. Anderson TIA
(Improvement)



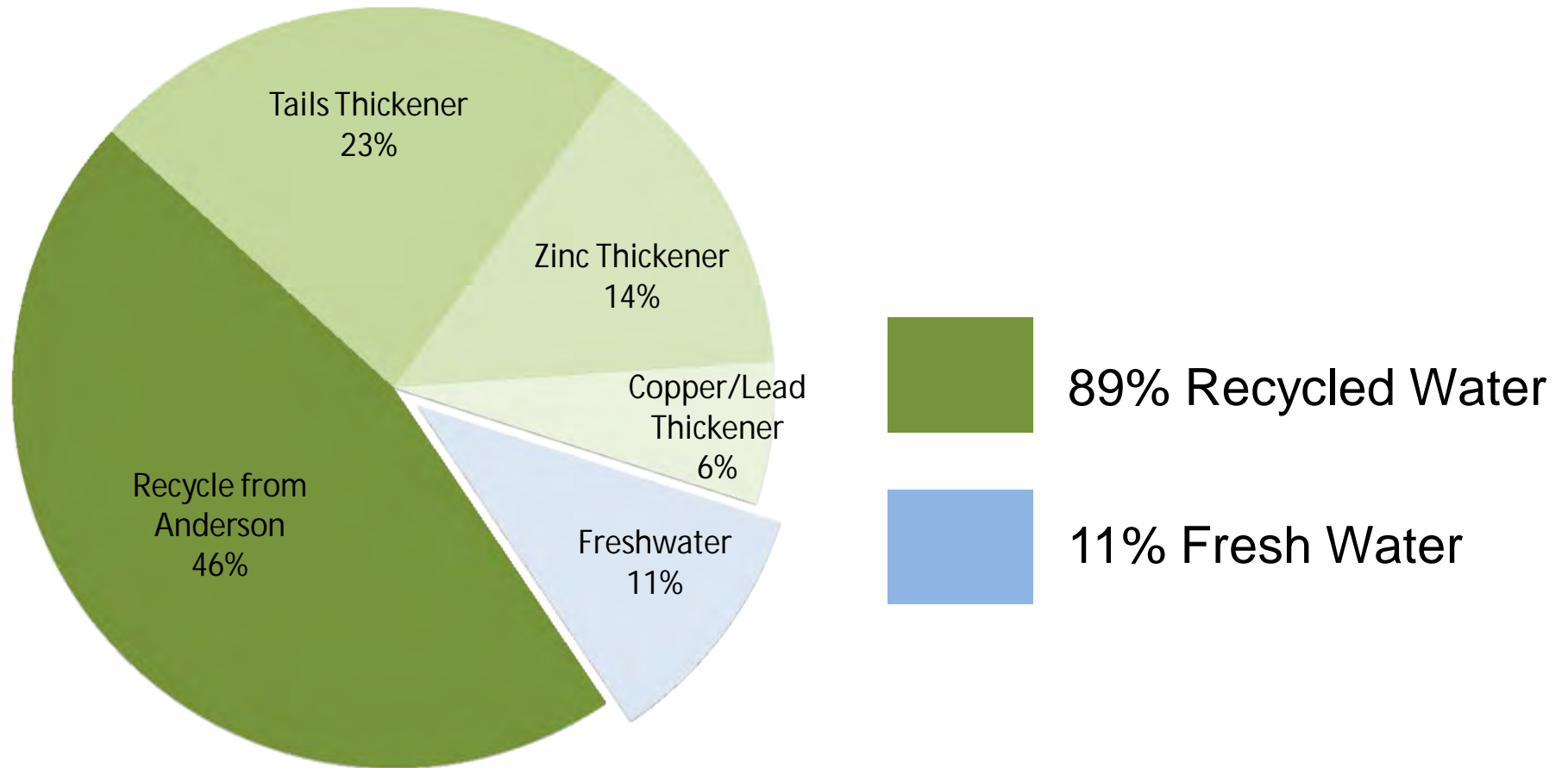
Snow Lake Pumphouse

- Will supply process water for use in the concentrator.
- Currently in operation and no structural upgrades required (pumps will be upgraded)



- Power upgrade (15/0.6 kV, 0.2 MVA outdoor dry type pad mounted transformer and fused cutouts) will be installed.

Water Inputs to Process Water Tank



Tailings / Freshwater Pipeline

- Pipeline System will include three separate pipes:
 - Pipe 1: Transport re-cycled water from Anderson TIA for use in the concentrator (primary source of process water)
 - Pipe 2: Transport fresh water from Snow Lake pumphouse for use in the concentrator (supplemental source of process water)
 - Pipe 3: Transport tailings from the concentrator to Anderson TIA

Tailings / Freshwater Pipeline Route



Improvement to PR 392

- Manitoba Infrastructure and Transportation (MIT) is planning to realign approximately 3 km of PR 392 (with support from Hudbay)
- Realignment will improve safety (curvature and sight distances)
- Realignment will facilitate the improvements needed to expand the capacity of Anderson TIA





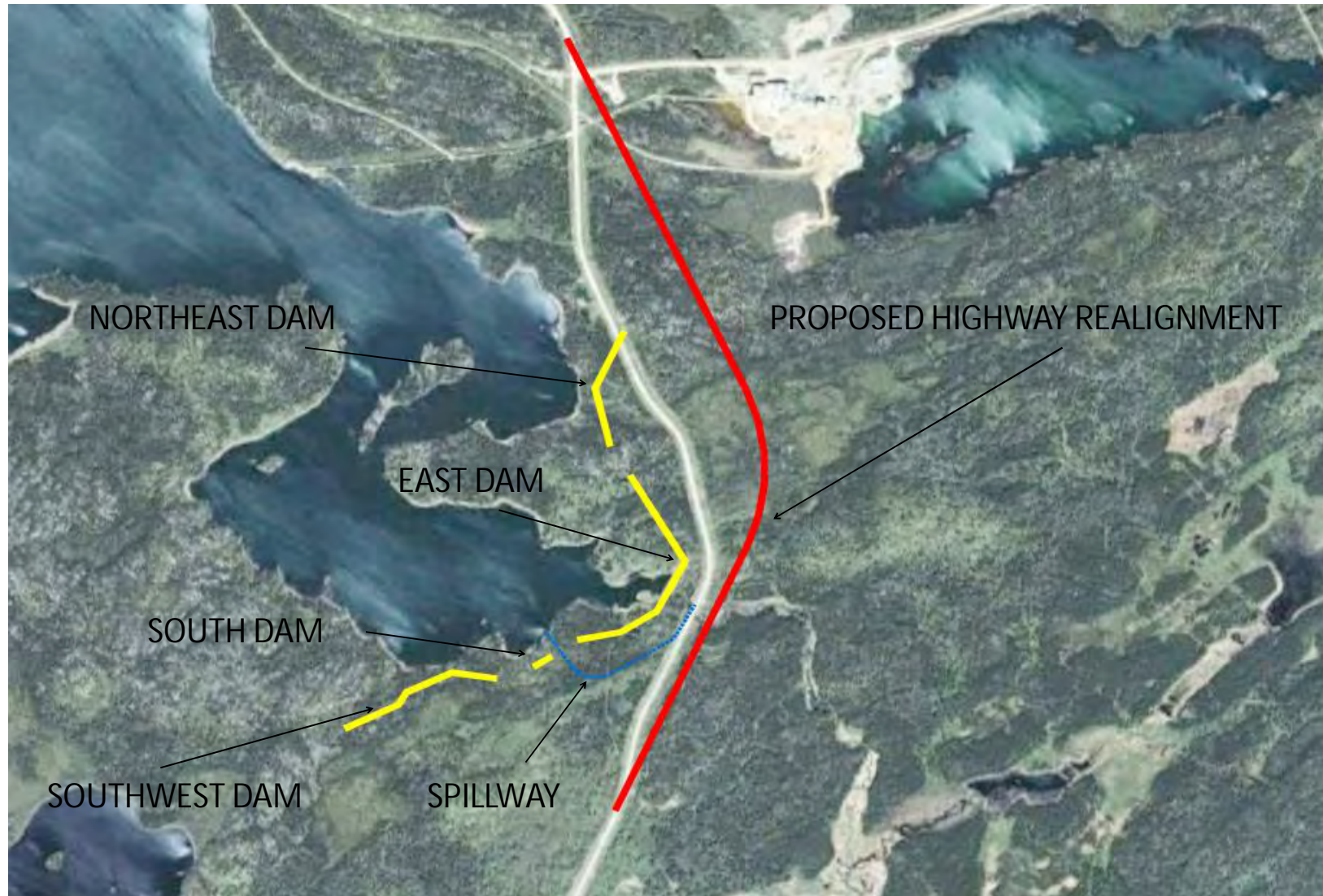
Anderson TIA

- The existing Anderson Tailings Impoundment Area (TIA) will continue to be utilized for the Lalor Concentrator.
- Sub-aqueous tailings deposition has been practiced at this facility since 1979
- Size of the Anderson TIA will be increased within the designated boundaries in order to accommodate additional tailings.
- Improvements will include:
 - North-east dam,
 - East dam,
 - South dam,
 - South-west dam,
 - Spillway, and
 - Seepage collection system



- Dam construction would be carried out over three phases, with Phase 1 completed in 2015
- Phase 1 construction would be sufficient to accommodate tailings from Lalor Mine based on known resources
- The water level will be raised a total of approximately 3.5 m upon completion of Phase 1, with an additional dam height of approximately 5 m
- Phase 2 and 3 could be implemented if additional storage capacity is required, for a total water level increase of approximately 7.3 m upon completion of all Phases

Anderson TIA – New Dam Alignments



Environmental Assessment Process

- Define project components (including support infrastructure and facilities)
- Define existing environment
- Identify potential environmental inputs/outputs required for project
- Evaluate interactions between the project and existing environment
- Develop management and mitigation measures to reduce or eliminate potential environmental effects
- Determine residual impact remaining after mitigation

- The information provided in this presentation is preliminary and additional information (including your feedback) will be considered in the environmental assessment report
- Although a significant amount of environmental study has been conducted in support of the Lalor Mine and Concentrator, some information is still pending. This would include data from the studies conducted in 2012 such as:
 - Analysis of water quality data from Anderson TIA (field work complete)
 - Assessments along a small portion of pipeline corridor (field work complete)
 - Noise assessment



Scope of the Assessment

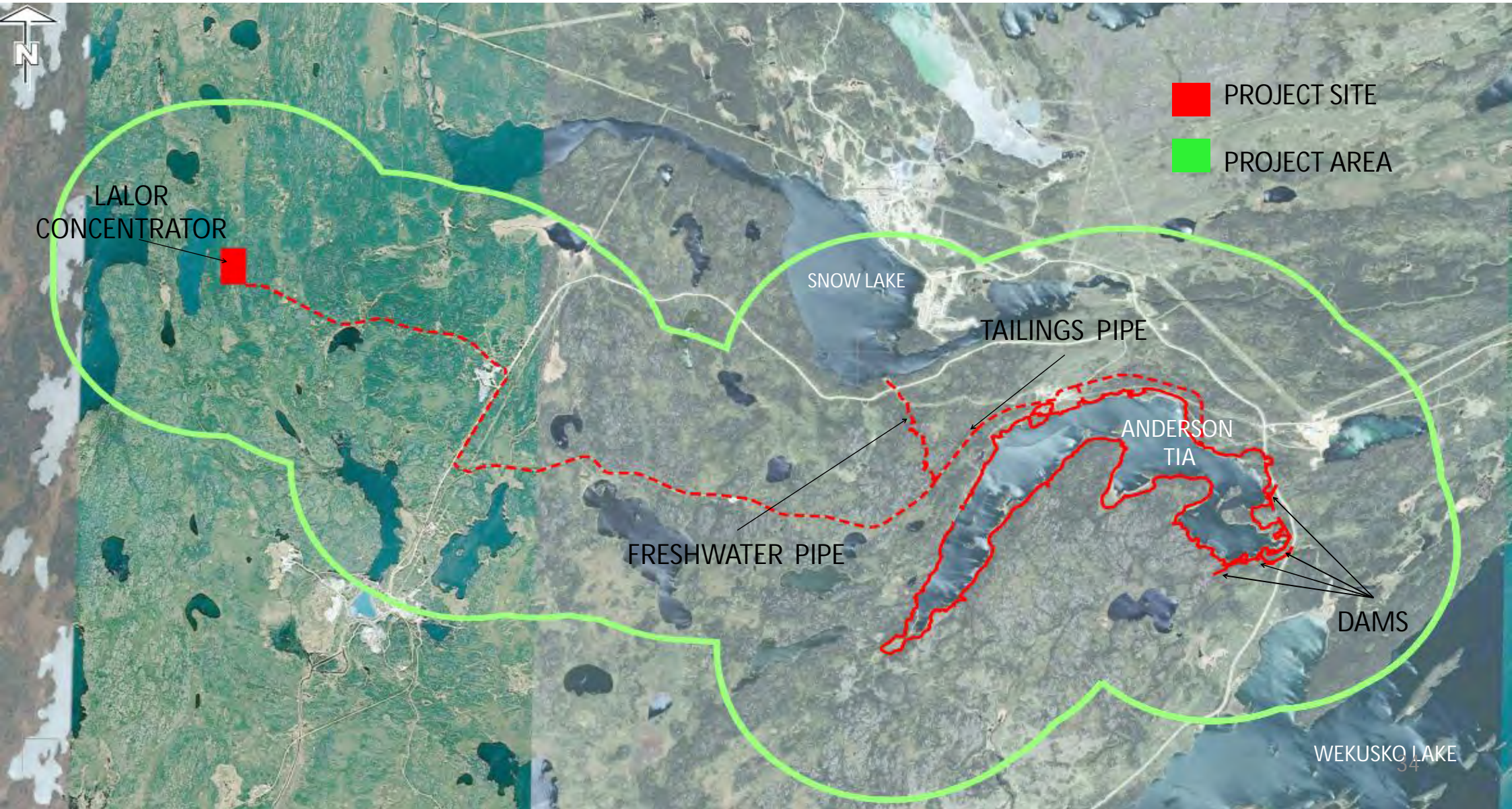
Temporal Boundaries

- Construction – February 2013 to September 2015
- Operation – September 2014 to 2027
- Closure – 2027 to the future

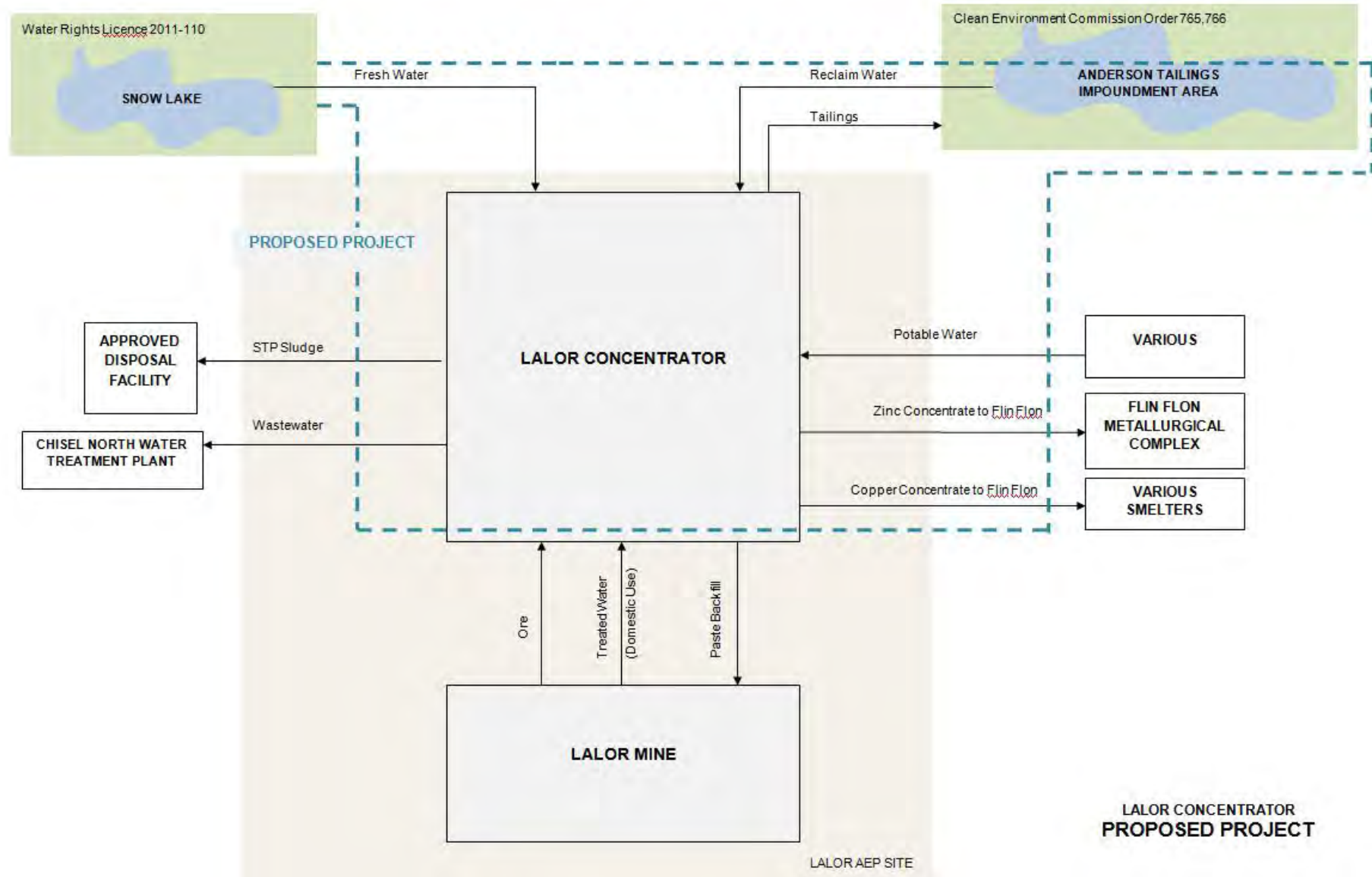
Geographic Boundaries

- **Project Site** – footprint of infrastructure
- **Project Area** – area up to 2 km beyond **Project Site** which could be disturbed by project activities
- **Project Region** – area up to 10 km beyond **Project Site** which could be disturbed by project activities (potential noise impacts, traffic)
- Boundaries may be adjusted to suit the environmental component affected

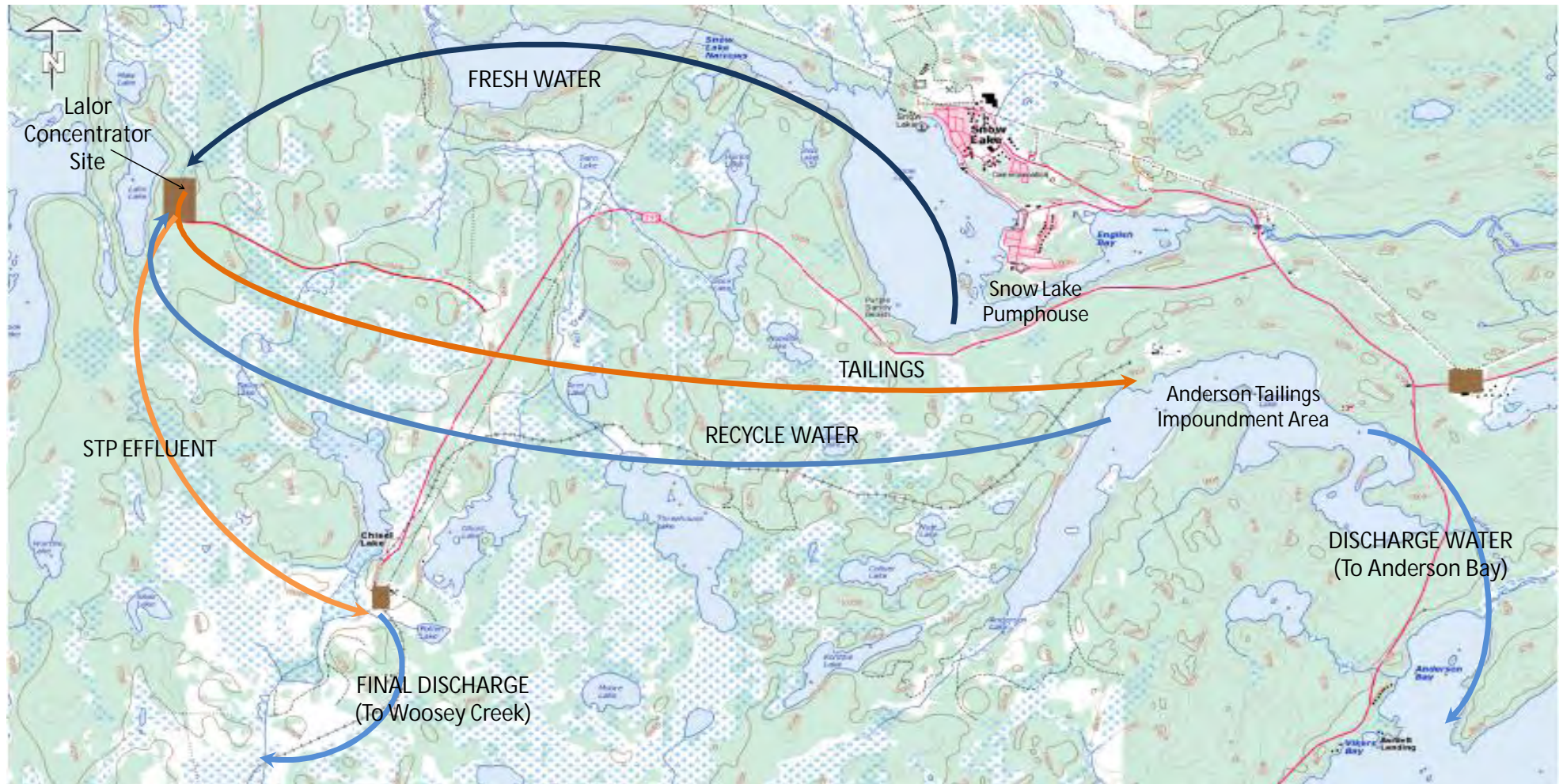
Scope of the Assessment



Process Overview



Project Inputs and Outputs



Environmental Factors Examined

Physical

- Topography
- Geology
- Soil
- Air
- Noise and Vibration
- Climate
- Groundwater



Aquatic

- Surface Water Hydrology
- Bathymetry
- Surface Water Quality
- Sediment Quality
- Aquatic Invertebrates
- Fish and Fish Habitat



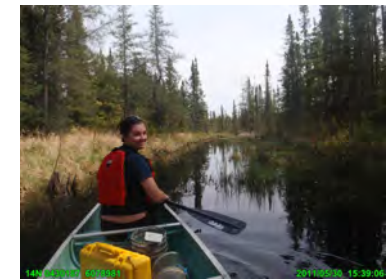
Terrestrial

- Flora and Fauna



Socio-Economic

- Heritage Resources
- Economy
- Recreation
- Resource Use
- Aesthetics
- Health and Safety



Environmental Assessment: Surface Water and Sediments

Existing Environment

- The facility and pipeline corridor is located in watershed that drains towards Squall Lake and Snow Lake. Anderson TIA discharges through Anderson Creek to Anderson Bay in Wekusko Lake
- Water and sediment quality baseline studies and bathymetric mapping conducted in potentially affected waterbodies in May and September 2011 and June 2012
- The quality of the majority of water samples in the Project Area were classified as Good or Excellent

Potential Sources of Impacts to Water and Sediments

- Supply of fresh water (from existing licensed sources)
- Wastewater generated from concentrator operations
- Chemical/fuel leaks during construction or operation
- Seepage from pipelines and TIA
- Flooded soil/vegetation at TIA

