MATABITCHUAN GENERATING STATION REDEVELOPMENT PROJECT

Local Stakeholder Meeting

Saturday August 24, 2024

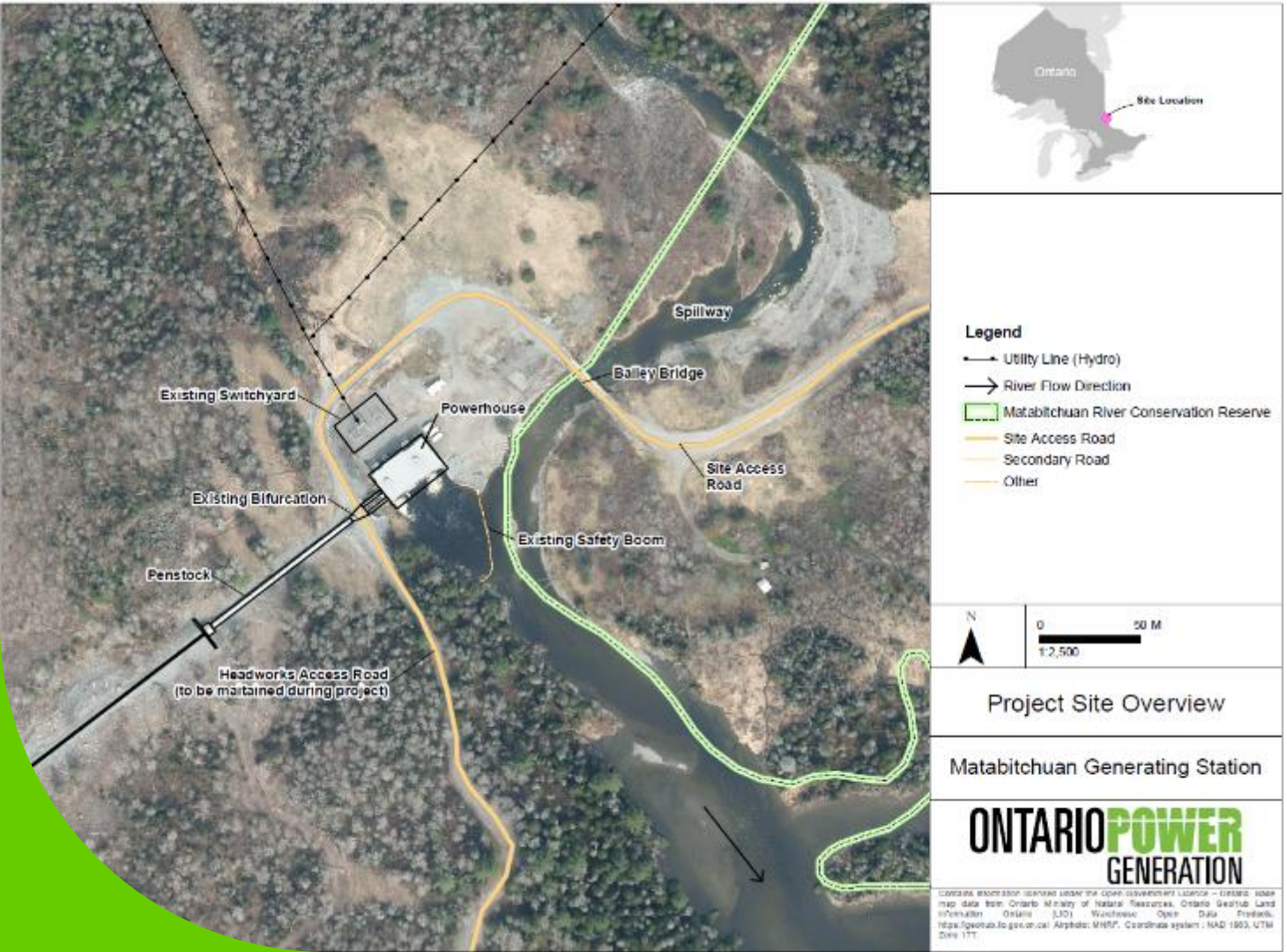
OPG Electrifying life

Agenda/Topics to Discuss

1) Welcome/ Introductions -Gillian
2) Recap on Project-Ralph
3) Introduce Kiewit-Ralph/ Kiewit Julian
4) Cofferdam Design-Kiewit
5) Waste management -Kiewit
6) Road Assessment-Kiewit
7) Condition of road-Kiewit
8) Brushing/clearing and Grading- Kiewit
9) Traffic Management-Kiewit
10) Air/ Noise-Kiewit
11) Potential Camp-Kiewit
12) Project Timelines -Kiewit
13) Bridge inspection-Ralph
14) Questions /Discussion –All
15) Next Steps/Wrap Up-Gillian

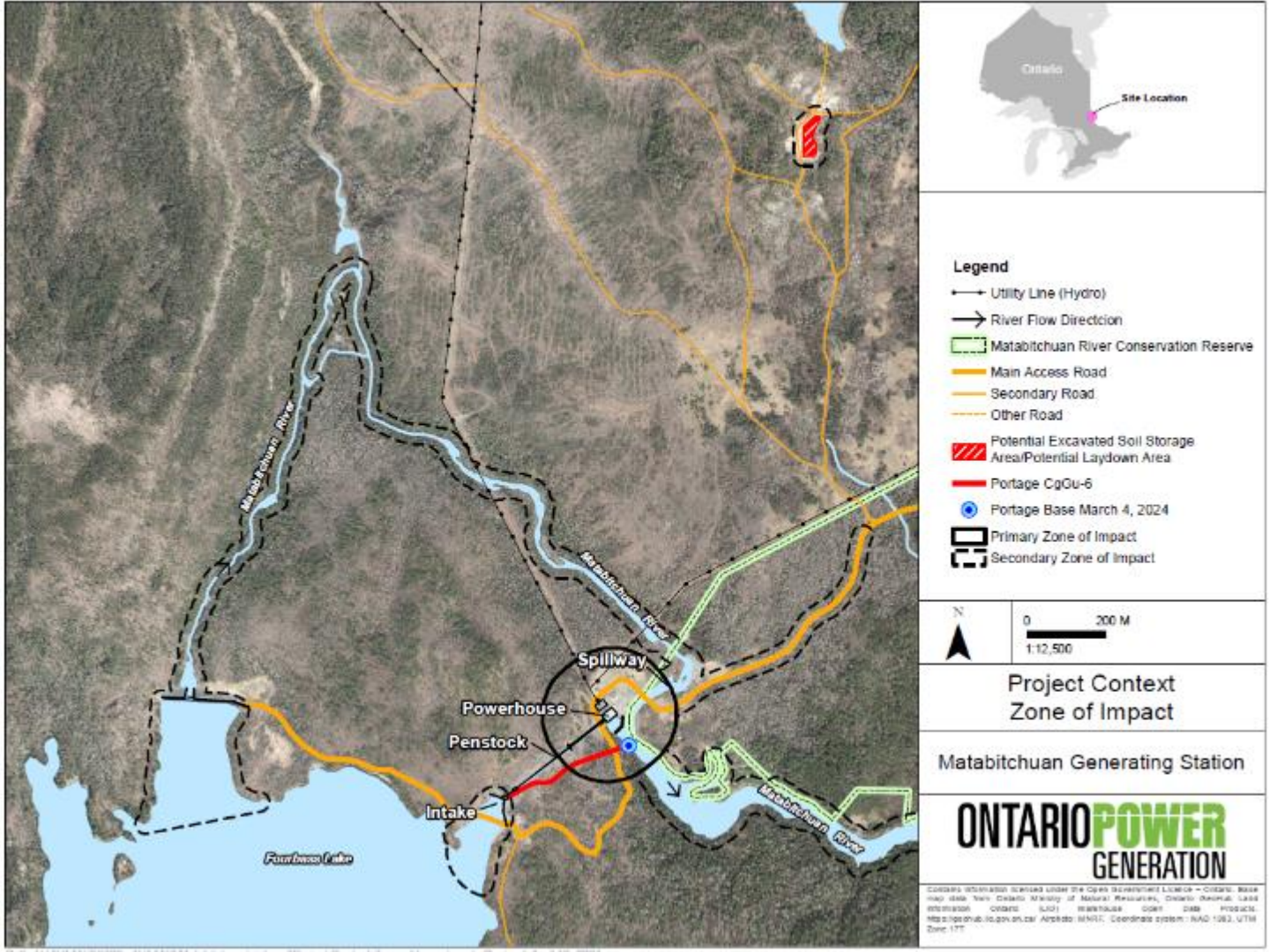
Meeting Objectives

- Share information with Stakeholders
- Answer questions



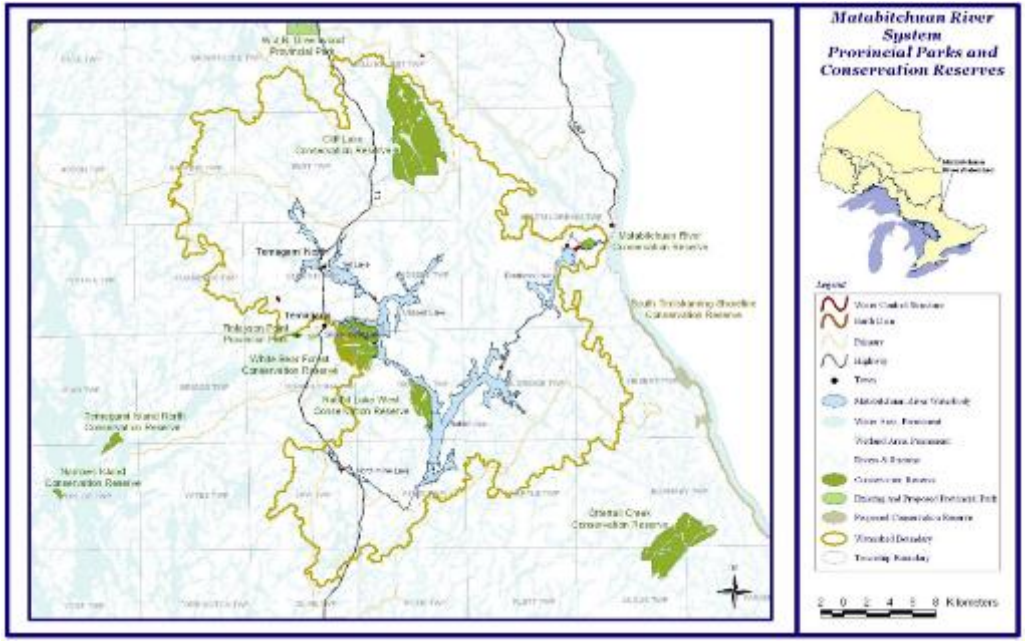
Project Site Overview

Project Context – Zone of Impact



Matabitchuan River Water Management Plan (2007)

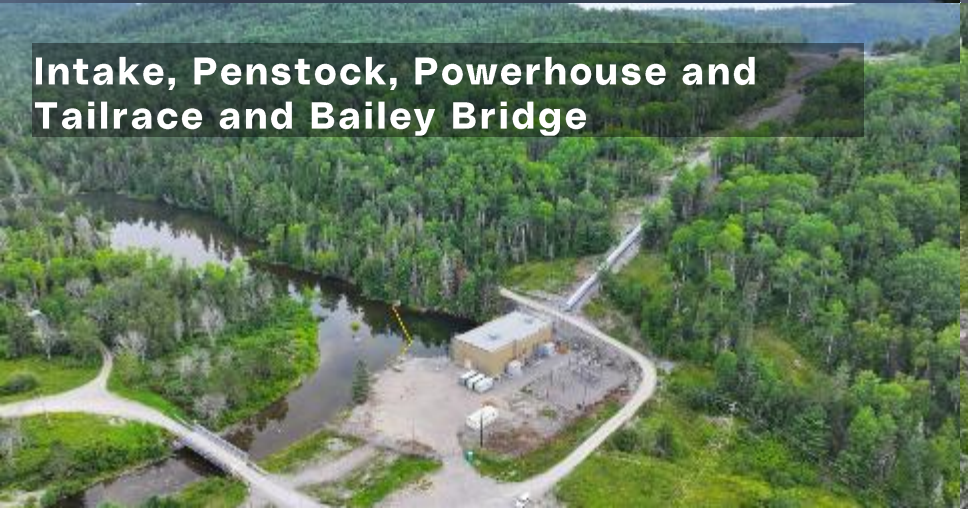
- Operating/Absolute range: 273.20 – 275.33 m.
- Summer band: 275 – 275.33 m from Victoria Day weekend to Thanksgiving weekend.
- For the winter drawdown, Rabbit Lake is drawn down by March 15th, Net Lake by March 21, and Fourbass Lake by April 9.
- There are fisheries constraints from April 15 – June 15 for walleye spawning. A spill log is installed, and the minimum elevation is raised to 274.60 m.

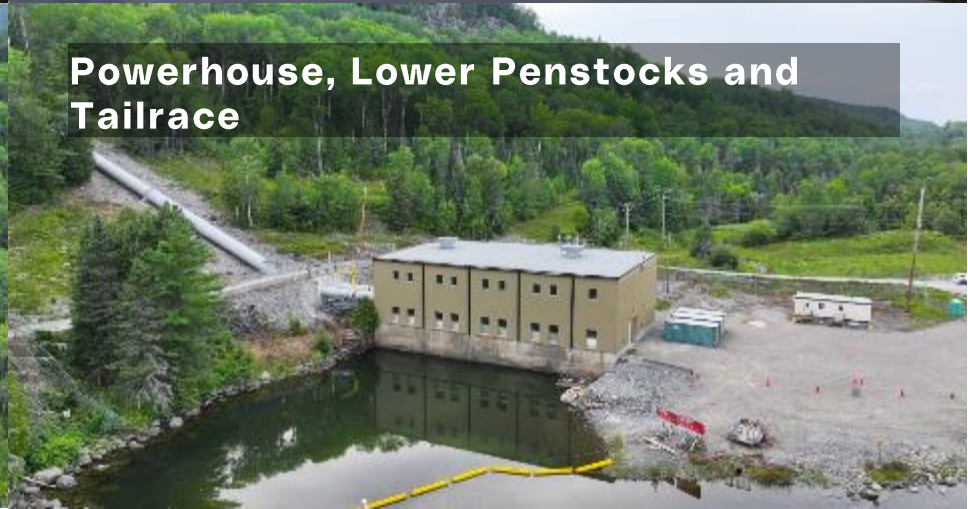


Re-developed GS will not require changes to the minimum flow or levels requirements set out in the WMP.


Headworks and Intake


Spillway Looking Downstream


Intake, Penstock, Powerhouse and Tailrace and Bailey Bridge


Powerhouse, Lower Penstocks and Tailrace

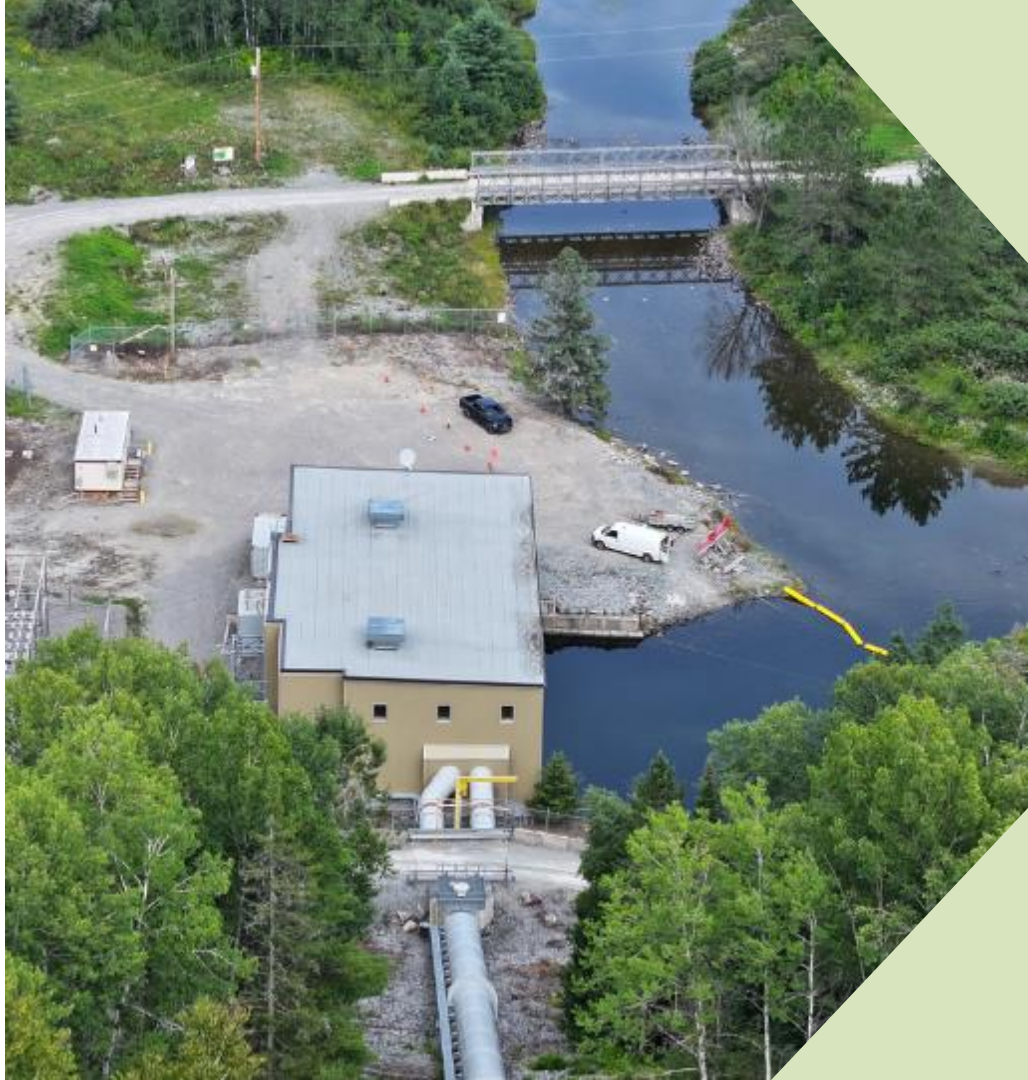
Matabitchuan Generating Station Redevelopment Project Overview

Facility Overview

- Matabitchuan GS is a four turbine/generator unit hydroelectric station put into service in 1910.
- Total combined nameplate capacity of 7.5 MW; however, the station has been operating at a total output capacity of 9.6 to 10.4 MW.
- Station operates at a gross hydraulic head of approx. 95 m and flow rate of 14.8 m3/s.
- Powerhouse footprint is approx. 560 m2 and located 85 m below the intake.
- Penstock is approx. 300 m long consisting of a 1.5 m-diameter section at the intake, leading to a 2.1 m-diameter section (275 m-long), and bifurcates into two 1.5 m-diameter sections entering powerhouse.
- Main control dam is located approx. 750 m west of headworks/intake and consists of a 4-bay stoplog-controlled sluiceway with gravity and rockfill dams on either side.

Project Rationale & Alternatives

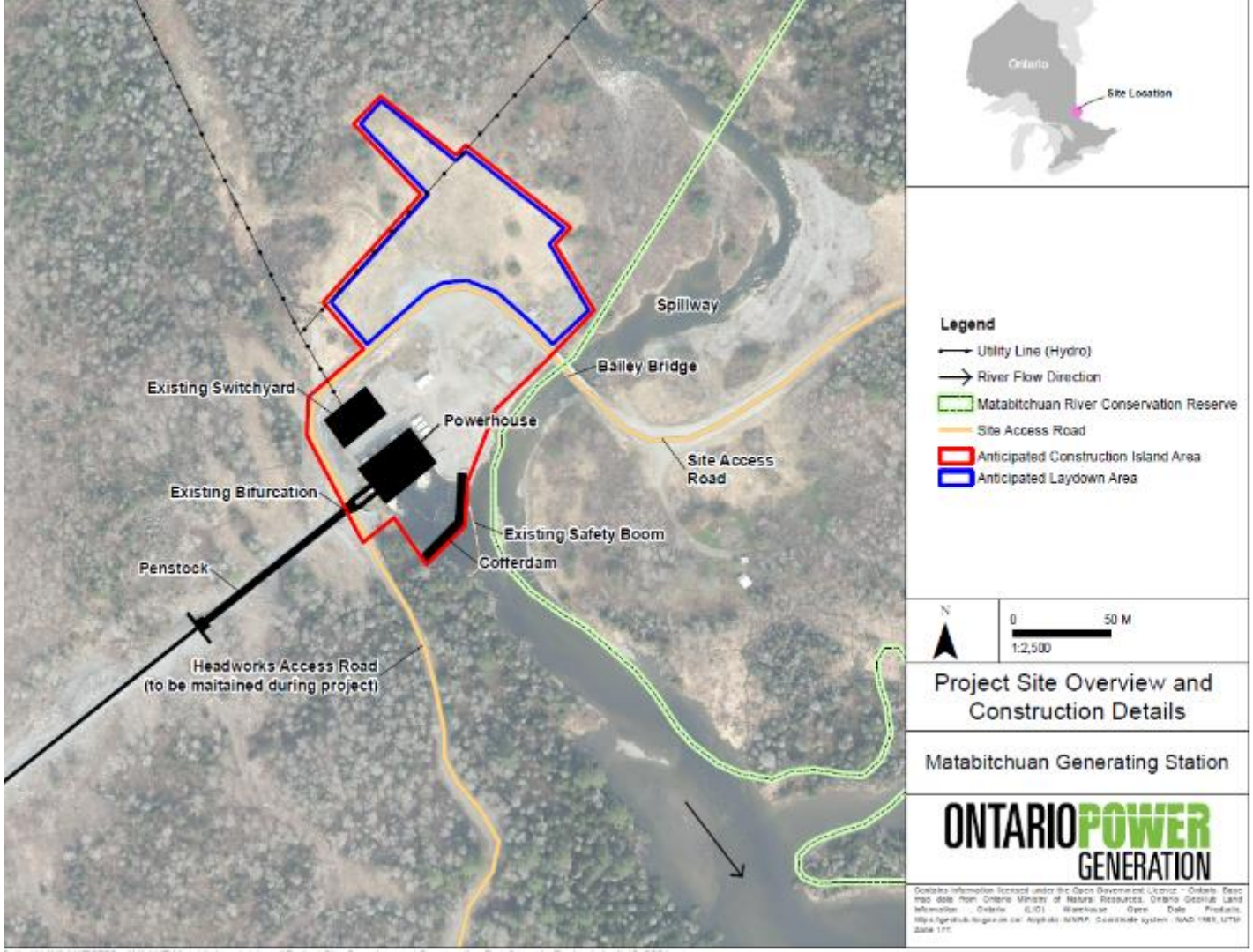
- Initiation Phase Optimization Study (2021) concluded that the Matabitchuan GS will reach end of life in the next five years.
- OPG assessed the following options for life extension of the Matabitchuan GS:
    - Overhaul – reuse as much existing equipment as possible, overhaul existing T/G units, and perform only required improvements where needed.
    - Refurbishment – replace existing T/G units with ‘like for like” and replacing or upgrading other equipment as required.
    - Redevelopment – build a new powerhouse and replacing T/G units and all other balance-of-plant equipment.



Key Highlights of the Preferred Alternative

- No changes to the dam and intake are required.
- No change to the WMP (levels and flows).
- 4 T/G units replaced by 2 Francis T/G units.
- Existing powerhouse is demolished and replaced.
- Cofferdam will be constructed in tailrace.

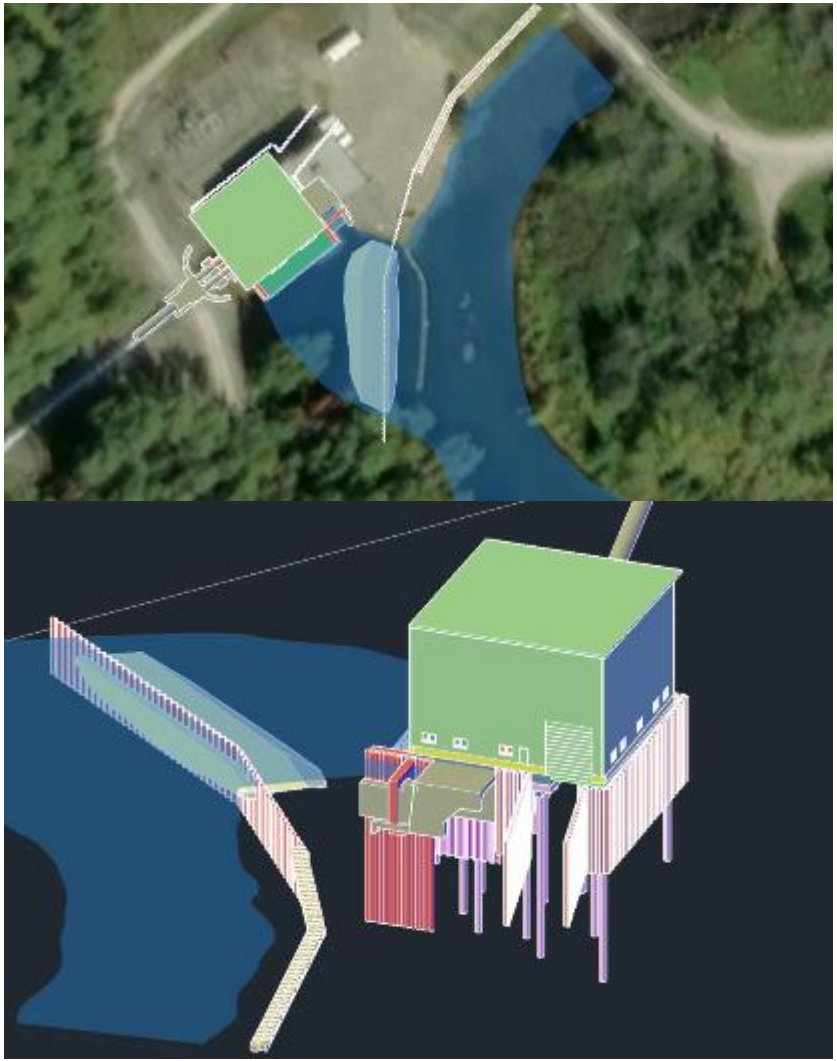
Construction Laydown Areas (to be confirmed)



In-Water Works

Temporary Cofferdam

- The temporary cofferdam is required to hold back the river from entering the tailrace to enable a dry working space in the downstream area.
- The cofferdam will consist of a granular berm and sheet pile wall. The granular berm will be constructed first, this is to enable equipment to travel and install the sheet pile wall.
- A turbidity curtain will be installed prior to the construction of the cofferdam and daily water quality monitoring will be conducted.
- Fish Salvage will be conducted behind the cofferdam prior to construction activities in the downstream commencing.
- A Request for Review to Department of Fisheries and Oceans (DFO) will be submitted in the Fall 2024.



Waste Management

Excess Soil

- Waste excess soil will be removed offsite. Soil will be tested prior to removal offsite, as per the Excess Soil Regulations (stored at Bell Hickey farm – owned by OPG).

- Clean soil will be stored / stockpiled at the Bell Hickey Farm.

Hazardous Substances

- An abatement plan will be completed for the Powerhouse.

- Substances that have been confirmed to be designated or hazardous will be removed and disposed offsite at a licensed facility.

- All hazardous waste will be shipped with a Manifest, as per the required regulations.

Waste Management

Solid Waste

- Waste such as wood, metal, domestic waste and general Construction waste will be segregated.
- Waste will be stored in bins onsite. Domestic waste will be stored in a wildlife proof bin.
- Waste will be sent to the local landfill.

Site Road Assessment:

Brushing, Grading and Clearing

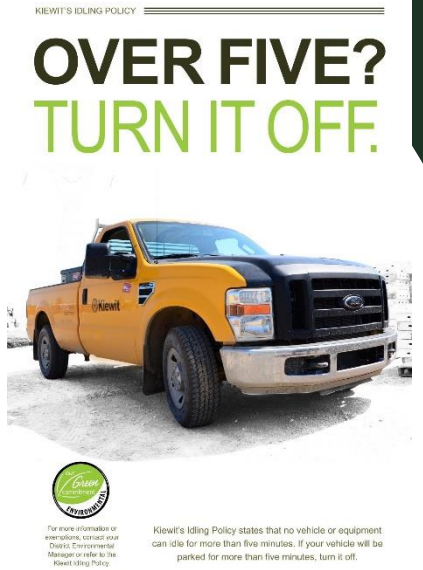
- Limited brushing may be required along the road for safety.
- Grading of the road for general maintenance will occur. Should grading be required in the area of the conservation reserve, consultation with Ministry of Environment Conservation and Parks (MECP), will be undertaken.
- Clearing of vegetation will be required for the parking and laydown and may also be required for the potential Camp location.
- Clearing will be conducted outside of the Breeding Bird Window.

TRAFFIC MANAGEMENT

- A Traffic Management Plan will be completed for the Project
- Access to the jobsite will be maintained continuously during the construction phase
- Access will remain public; All of our construction zones will be fenced and isolated
- Existing posted speed limits and all signage to be respected
- In the event of road closures or minor delay, they will be communicated to OPG, who in turn will communicate directly to the public and Indigenous Communities.

Air Noise and Dust

- Noise by-laws will be followed, and testing will be conducted as required
- Kiewit's No Idling Policy will be followed
- Dust suppression such as Calcium will be applied on the access road, and misters will be used during the demolition of the Powerhouse to minimize dust.
- Speed signs will be enforced to reduce dust.
- Regular maintenance of equipment will occur as part of Kiewit Preventive Maintenance Program
- No Blasting is scheduled to take place on the Project.

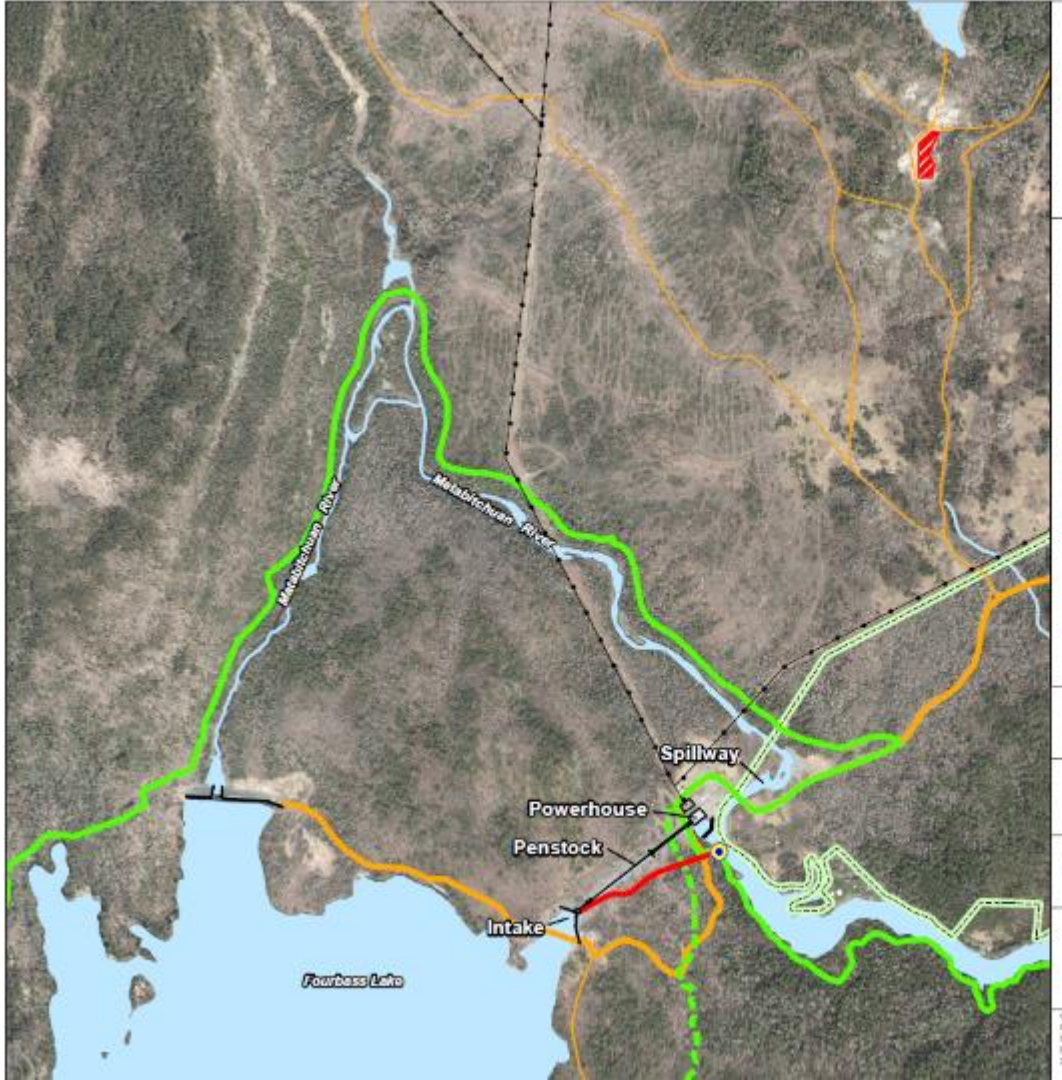


Potential for Camp

- Kiewit is proposing to construct a temporary camp.
- The camp wold accommodate approximately 20 people.
- The proposed camp will reduce safety concerns as well as reduce the amount of traffic on the road.
- The camp will enable staff to be onsite at all times and available should cottagers have questions or concerns.
- Camp will be located on OPG property.
- Class 5 holding tanks will be used for septic waste. Septic waste will be hauled of site to the local Wastewater Treatment Plant (WWTP).

Portage Routes and Hiking Trails

- No work is planned at the intake, so it is believed that portage routes will be protected, as they are located outside of the construction island.
- Ottawa Temiskaming Highland Trail boundary has been identified and will not be encroached.



Legend

- Utility Line (Hydro)
- Matabitchuan River Conservation Reserve
- Main Access
- Secondary Road
- Other Road/Trail
- Potential Excavated Soil Storage Area/Potential Laydown Area
- Historic Portage Route
- Historic Portage Trail Head
- Ottawa Temiskaming Highland Trail (Main Path)
- Ottawa Temiskaming Highland Trail (Secondary Path)

N

0 200 M

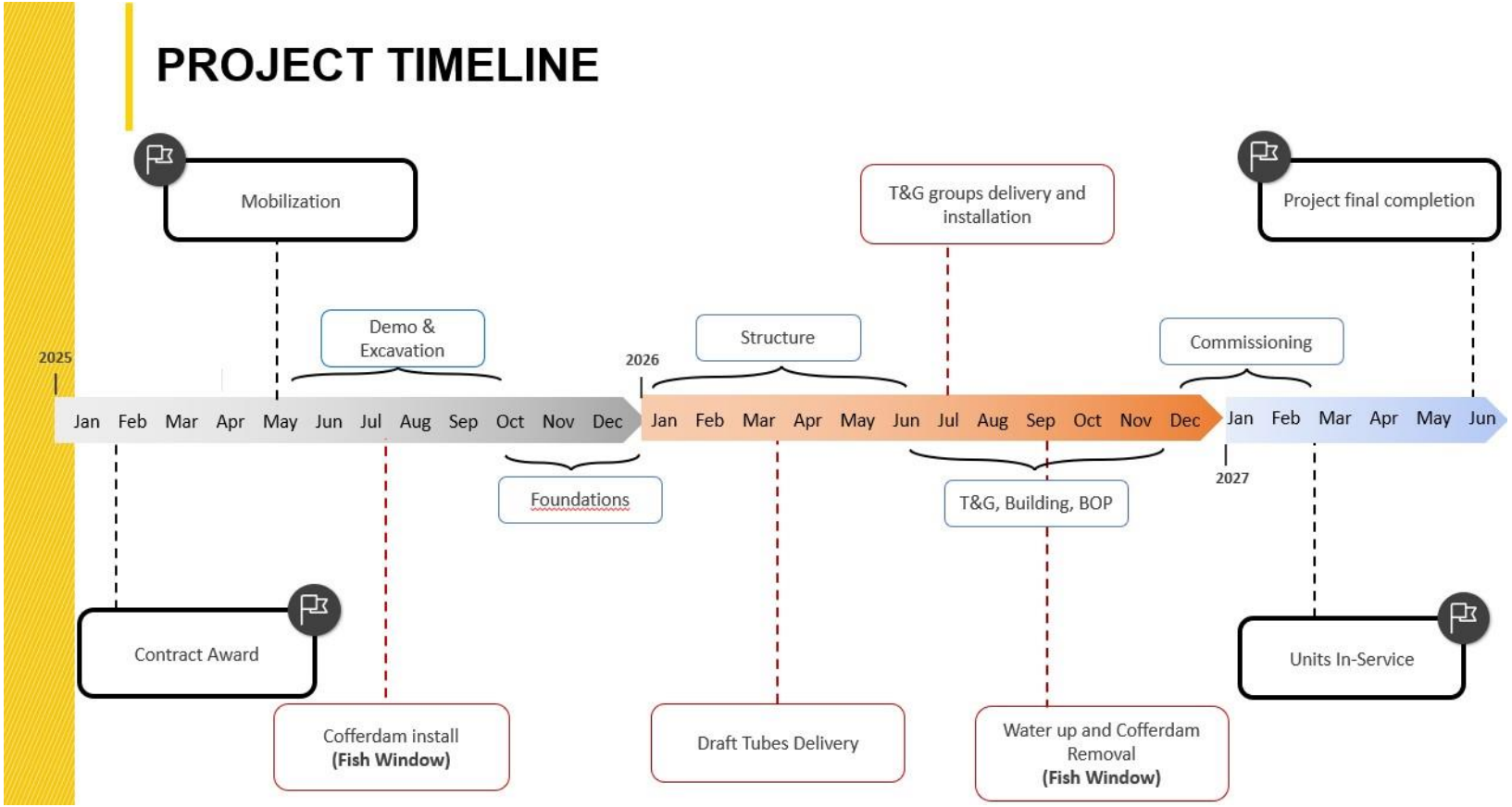
1:12,500

Project Context
Portage Routes and Trails

Matabitchuan Generating Station

ONTARIO POWER GENERATION

Project Timelines



OPG Requirements for the Contractor

- Site Specific Environmental Management Plan (SSEMP)
    - Erosion and Sediment Management Plan
    - Spills Management Plan
    - Waste Management Plan
    - Traffic Management Plan
    - Air and Noise Management Plan
    - Communications plan

- Site Specific Health and Safety Plan (SSHSP)

Bridge Assessments

Figure 1: Bridge Master Supplied by Jenik (J-62 A)

Bridge Assessments

Figure 2: View of Bridge Master on the Lower Notch Intake Bridge

Bridge Assessments

Detailed Inspections required at the Lower Notch Intake Bridge and Matabitchuan Powerhouse Access Bridge.

- Structural inspections of both bridges will be completed using a Bridge Master truck.
- Concrete testing will be completed at the Matabitchuan bridge to assess condition of concrete abutments.
- Inspections will be completed on August 27 & 28 between 7:30AM – 5:00PM. Expect minor delays during these hours.
- Traffic control will be present for public and worker safety and to facilitate bridge crossings during the inspections.
- Bridges will be opened as quickly as possible for any emergencies.

Discussion & Next Steps

Thank you!

Should you have questions or require further information, please contact:

Gillian MacLeod
Senior Environmental Advisor

Ontario Power Generation
Email: gillian.macleod@opg.com
Phone: (416) 528-0967

Kyle Hunt
Environmental and Regulatory Approvals Lead

Avaanz Ltd.
Email: kyle.hunt@avaanz.ca
Phone: (647) 228-2918

OPG Electrifying life

BACK UP SLIDES