Technical Memorandum

Matabitchuan Generating Station Redevelopment Project Environmental Screening Addendum: Mobile Concrete Batch Plant

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Subject: **Environmental Screening Addendum: Concrete Batch Plant**

1. Introduction

Following the completion of the Matabitchuan Generating Station (GS) Redevelopment Project Environmental Screening process under the Ontario Waterpower Association (OWA) Class Environmental Assessment (EA), the need for a mobile concrete batch plant for construction has emerged. Because this need has emerged after completion of the Screening Report, it must be assessed separately using the OWA Class EA Screening criteria and presented as an Addendum to the original Screening.

This Addendum has been developed to demonstrate that the proposed mobile concrete batch plant meets the Class EA Screening criteria and can proceed through permitting. The following provides details of the proposed mobile concrete batch plant followed by the results of the Class EA screening process.

2. Overview

2.1 Background

During the construction phase of the Matabitchuan GS Redevelopment Project, large concrete pours will be required for the substructure to meet quality standards and schedules. To import this amount of concrete from outside the project site could potentially cause problems on municipal roadways and Highway 567 which have load restrictions annually during the spring and summer months. The original project timeline did not schedule concrete work during these seasons and the need for a batch plant to avoid the load restrictions on these roadways was not considered in the original Screening Report.

Various project design changes now require much of the concrete work to occur in Spring 2026 which coincides with these restricted periods. To avoid this, the Constructor's concrete supplier has proposed to temporarily set up and operate a mobile concrete batch plant near the Matabitchuan GS. This would allow meeting the required concrete volumes and complying with the roadway load restrictions to ensure sufficient concrete for the necessary foundation pours. A mobile concrete batch plant close to the construction site will:

- Increase Project efficiency during concrete pours by significantly reducing travel time;
- Ensure the concrete is fresh and meets the required specifications;
- Reduce transportation costs; and
- Decrease truck traffic on the local roadways (decreasing risk of traffic accidents, decreased emissions due to a shorter haul route for the concrete trucks and decreased dust emissions during dry periods).

2.2 Mobile Concrete Batch Plant Description

The temporary mobile concrete batch plant would be located on a small parcel of Crown Land along the access road near the Lower Notch GS (see **Figure 1**). The batch plant would occupy an area of approximately 300 m^2 and would require a storage area of approximately 5000 m^2 for materials and equipment (sand, aggregates, water, trucks). The Constructor may store additional sand and aggregates at the OPG land parcel approximately 500 m northeast of the Matabitchuan GS, if required. A minimum of 1-2 trucks will be parked at site, and others will be brought to site on an as-needed basis.

Two options are currently being considered for the design of the mobile batch plant. The first option involves pre-mixed concrete delivered to the mobile batch plant in bags (see **Figure 2**), while the second option involves a more conventional mobile batch plant in which bulk materials would be stored on-site (see **Figure 3**).

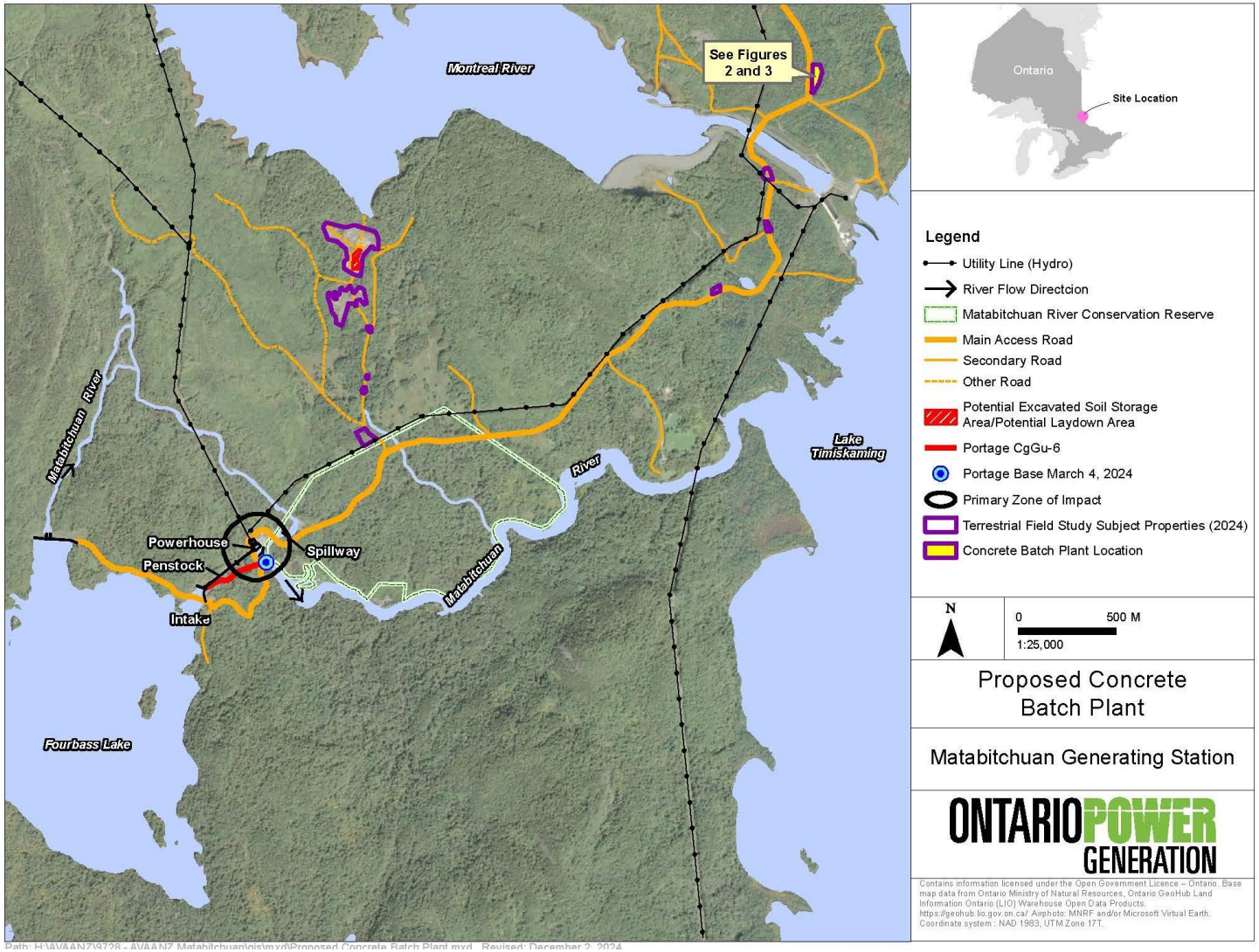

Figure 1: Proposed Mobile Concrete Batch Plant Location

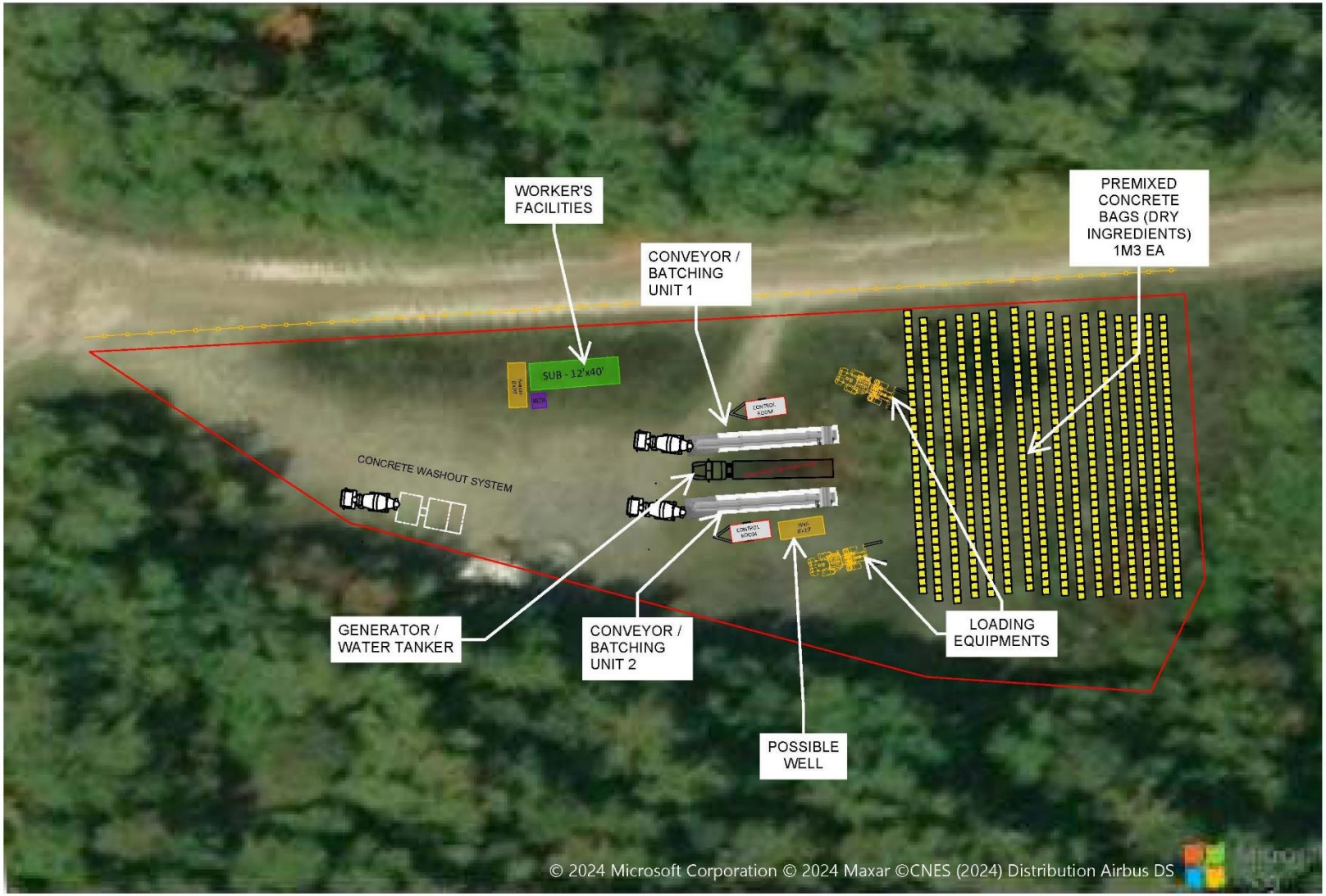

Figure 2: Detailed View of Proposed Mobile Concrete Batch Plant (Option 1)

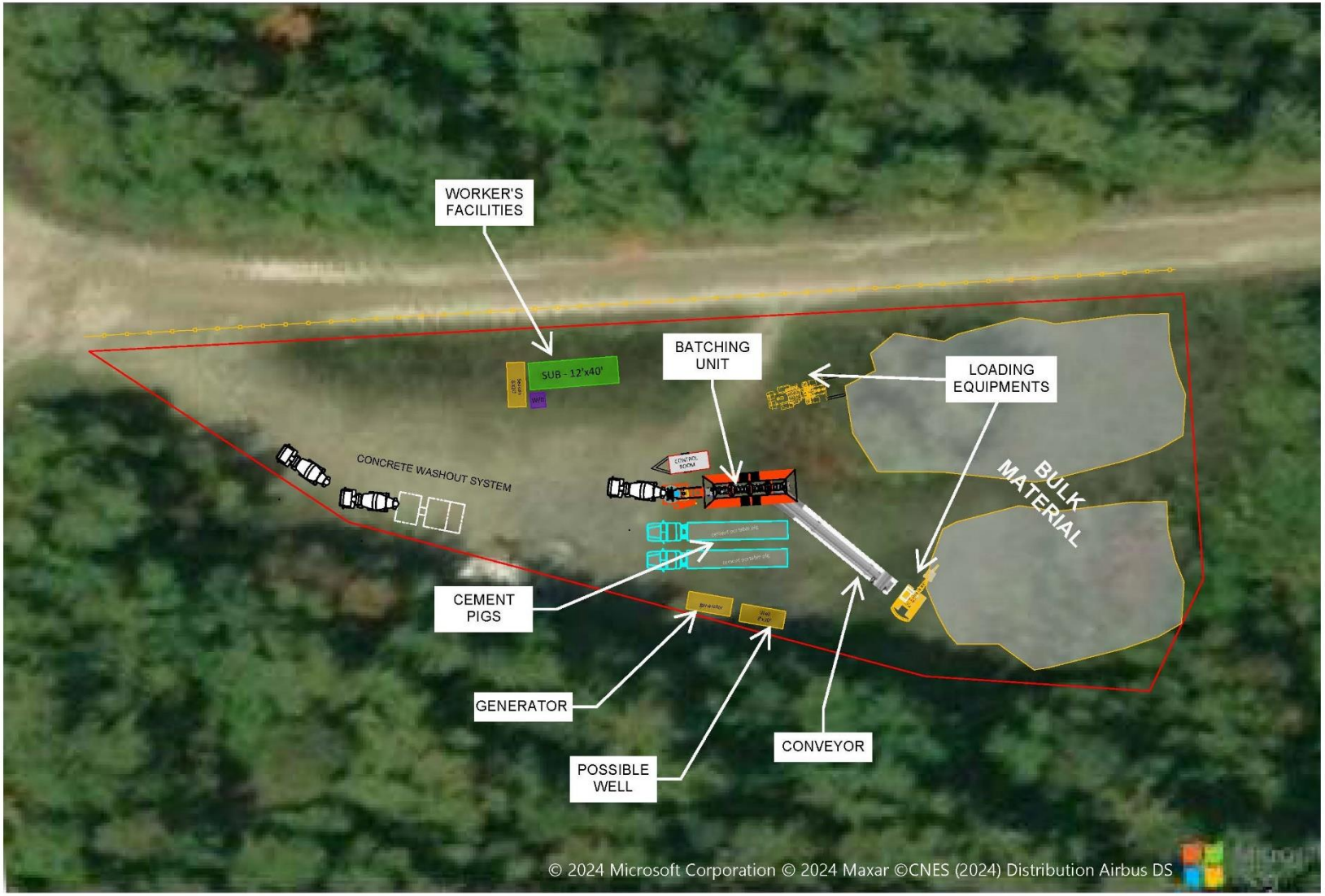

Figure 3: Detailed View of Proposed Mobile Concrete Batch Plant (Option 2)

The mobile concrete batch plant would produce an average of 20 cubic metres per hour (m^3/hr) of concrete with a maximum output capacity of 30 m^3/hr. It is expected to require an average of three concrete trucks per day.

Water required for the operations would be sourced from a groundwater well, if permitted, or by water trucks. Depending on the type of mobile batch plant, the concrete will either be mixed by transferring dry ingredients to the truck and then adding wet ingredients, or by adding all ingredients to a batching unit and then transferring the mixed concrete to a truck. Dust generated from the operations will be controlled using water trucks and magnesium chloride on the gravel access road.

Regarding environmental effects and permitting needs, the concrete supplier will be obtaining an Environmental Compliance Approval (ECA) for air and noise to permit the proposed batch plant. The mobile concrete batch plant will be part of the general traffic control plan for the Project.

The proposed mobile concrete batch plant is anticipated to be in operation for up to one year.

3. Screening Results

The proposed mobile concrete batch plant has undergone analysis using the Class EA Screening criteria per the Ontario *Environmental Assessment Act*. Based on information provided by the Constructor, and mitigation measures and Best Management Practices (BMPs) to be used during construction and operation, each of the seven screening questions have been answered as "No" in their entirety. The Screening results are provided in **Table 1**.

Table 1: Class EA Screening Results – Proposed Mobile Concrete Patch Plant

Screening Questions	Yes	No	Rationale
Will the proposed mobile concrete batch plant…			
(1) Change the water management regime, including (but not limited to) significant change to water flow, inundated area, or historical mean monthly maximum water level?		✓	• The proposed mobile concrete batch plant will have no impact on the water management regime.
(2) Release contaminants into the immediate environment that exceed regulatory thresholds?		✓	• To avoid the potential for contamination during slurry mixing and storage of materials at the batch plant area, mixing will occur inside trucks, which are fully enclosed and double walled. • Slurry mixing in the trucks during transportation will also mitigate the risk of concrete dripping before it is poured out of the truck on site. The risk of concrete dripping on route is minimal. • Once the cement is poured, the trucks are washed on site prior to travelling to prevent contamination should any dripping occur. • While the risk of spills is minimal, any potential spill on site will be cleaned to avoid contamination in the immediate

Screening Questions	Yes	No	Rationale
Will the proposed mobile concrete batch plant…			
			environment. Accidental release of contaminated material would be cleaned up and disposed of according to regulations. This would be part of the supplier plan and permit. • Once the batch plant is no longer needed, the site will be restored to a similar state and/or in line with what is stipulated by supplier permits and/or Ministry of Natural Resources (MNR) permit requirements to ensure there is no residual contamination. • The batch plant will be regulated under an ECA, which is a separate ECA to the Project and obtained by the owner of the mobile batch plant. • In addition, as part of the Project's Site Specific Environmental Management Plan (SSEMP), Component Environment Management Plans (CEMP) will be generated. For example, the Air Quality and Dust management plan will describe any potential air quality issues and provide corresponding mitigation measures including dust control. The plan is intended to minimize particulate emissions and comply with the environmental requirements of the Project as well as recommended environmental management practices as outlined by Canadian Ready-mix Concrete Association. • Additional mitigation measures include: o Fresh concrete pours will be protected from precipitation with an impermeable cover until the concrete cures in order to prevent runoff; o All concrete trucks and associated equipment will be washed out in a designated washout location; o Road surfaces will be wetted as determined from daily monitoring of dust along the access routes; o In the event that the application of water does not affect dust, suppression materials such as calcium chloride would be used to effectively control dust onsite; o Materials in trucks will be covered or have the peak of the load levelled if travelling outside of Project construction areas; o Stockpiles and surrounding areas will be wetted. If required piles may be covered (tarps, or other cover material); o When transferring material drop heights will be adjusted to less than 1 m where feasible.
(3) Cause negative effects on species or their habitat for species listed under the Ontario *Endangered Species Act*?		✓	• The proposed mobile concrete batch plant will be designed to avoid negative impacts on the *Endangered Species Act* listed species in the project study area. • There are no endangered fish species affected by the proposed batch plant.
(4) Cause negative effects on protected areas, such as Areas of Natural or		✓	• There are no Areas of Natural or Scientific Interest, Environmentally Sensitive Areas or Provincially Significant

Screening Questions	Yes	No	Rationale
Will the proposed mobile concrete batch plant…			
Scientific Interest, Environmentally Sensitive Areas, or Provincially Significant Wetlands?			Wetlands within or near the proposed mobile concrete batch plant.
(5) Cause considerable sedimentation or erosion on or off-site?		✓	• The Site-Specific Environmental Management Plan implemented for the construction period will ensure that BMPs for erosion and sediment control are implemented and maintained to prevent erosion until the risk is eliminated.
(6) Have negative effects on known (previously recognized) or potential built heritage resources and/or cultural heritage landscapes?		✓	• The proposed mobile concrete batch plant will have no effects on built heritage resources and/or cultural heritage landscapes, including the original historic use of the GS.
(7) Have negative effects on archaeological resources and areas of archaeological potential?		✓	• The two archaeological sites identified within the project study area will not be impacted by the proposed mobile concrete batch plant as documented by a professional archaeologist.

4. Conclusion

For each screening question, the proposed mobile concrete batch plant Project provided an answer of "No". This confirms that any potential negative environmental effects from the proposed mobile concrete batch plant can be mitigated with standard mitigation measures and best management practices. Therefore, the proposed mobile concrete batch plant will not impact the Matabitchuan GS Redevelopment Project's exemption from the *EA Act* and the Project can proceed through the permitting process.