Water Resource Management Plan

EA#2366 – Barachois Brook Sand Quarry

Farrell's Excavating Ltd.

May 2026

1. Prepare a location map identifying all streams and water bodies within 30 meters of the project footprint area.

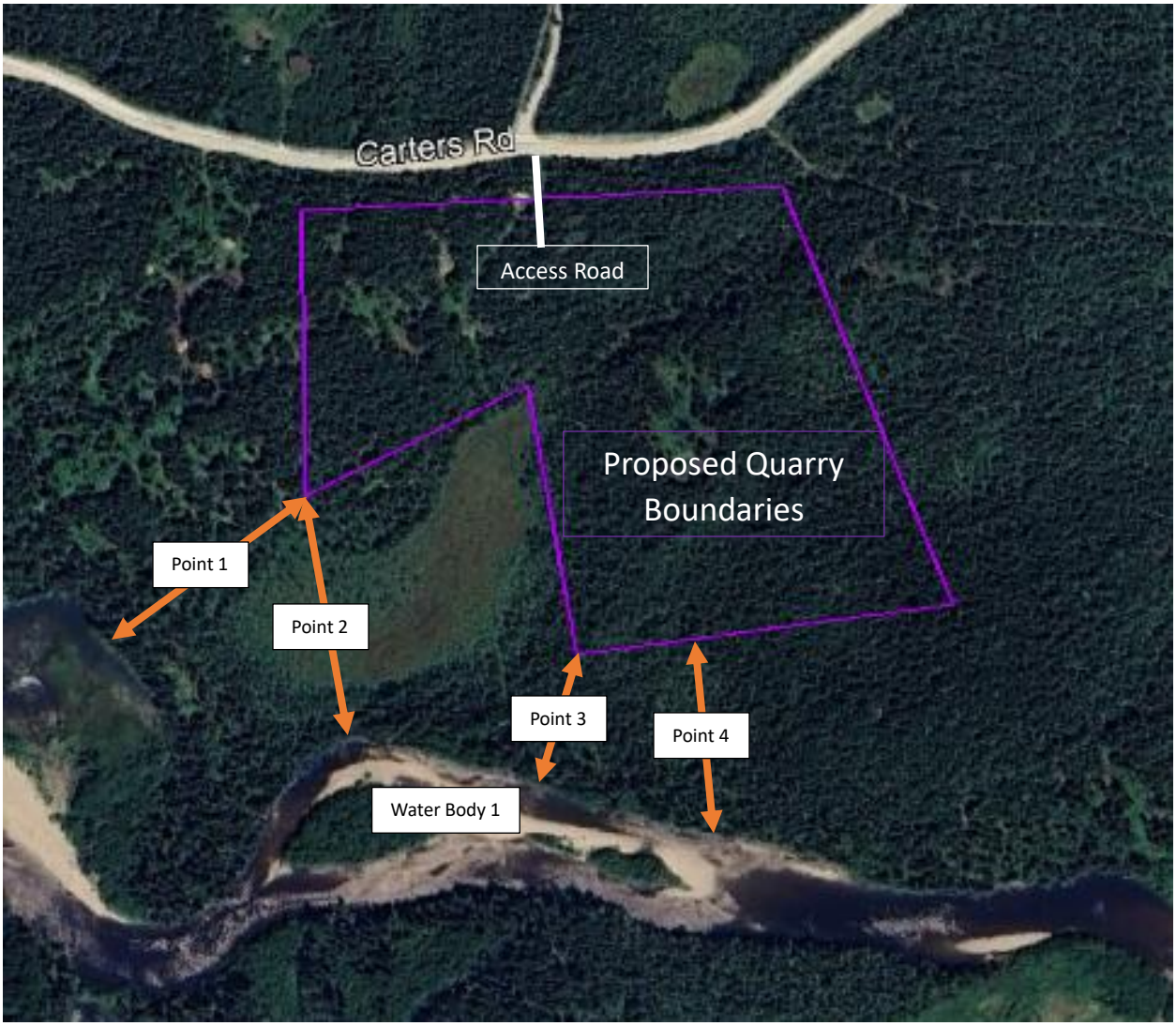

Figure 1: Quarry Boundaries with Vicinity Water Bodies

Water Body 1: Barachois Brook

Point 1: ~140m

Point 2: ~130m

Point 3: ~70m

Point 4: ~110m

1. Identify all streams or water bodies located inside the project footprint area.

Figure 2: No water bodies identified within the boundary.

There are no identified water bodies in the proposed location.

2. Describe how to manage the stream or water body situated inside the project footprint boundary (eliminate it, divert it, or keep it in place).

There are no water bodies within the proposed boundary.

3. Determine the amount of stormwater runoff for a 1 in 100-year 24-hour climate change rainfall event.

The amount is unknown.

4. Describe how to manage the runoff or on-site drainage water (1:100-year stormwater runoff amount) – either discharge it directly into the nearby stream/water body or store it in a detention pond and release it gradually.

There is no use for water for the desired quarry operation. Therefore, water will be slowly drained over a vegetated area via culvert. Water may be used for dust suppression, this will be done through a water truck owned and operated by Farrell's Excavating Ltd.

5. Prepare a schematic diagram of the on-site drainage plan.

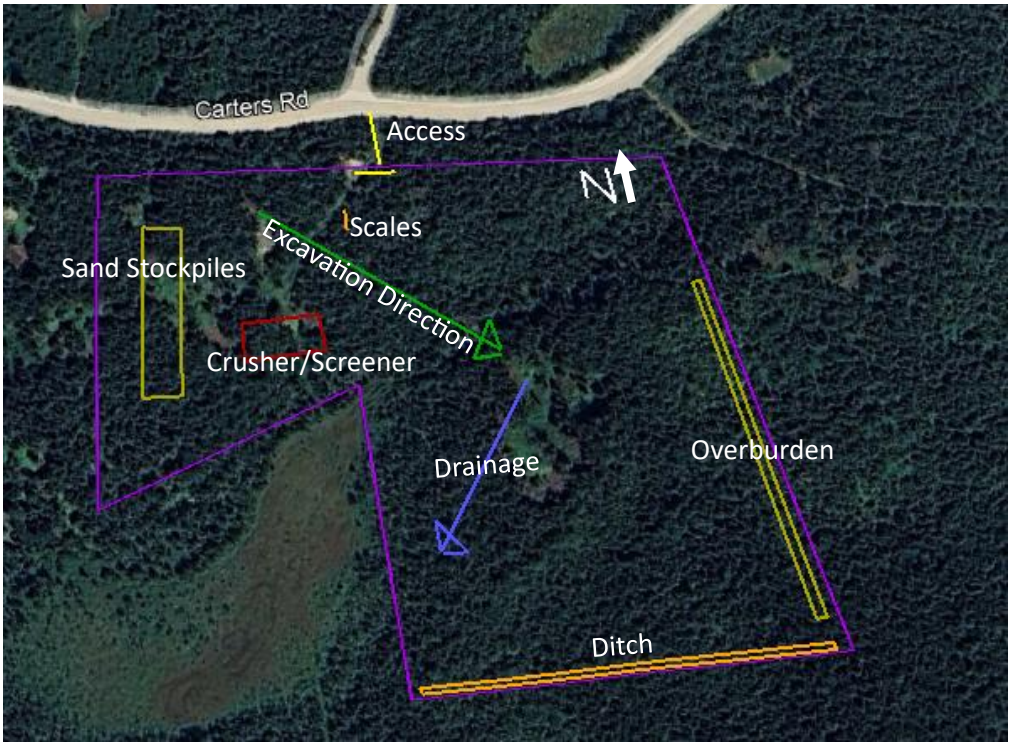

Figure 3: Quarry Layout Plan with Proposed Runoff Based on Land Topography

As stated on the schematic, drainage shall be favoured by the natural topography of the proposed site. The topography within the boundary is lowest at the Southwest portion, as indicated by the blue arrow.

6. Describe how to manage the dewatering of the mine pit/quarry pit, if required.

In the event that dewatering is needed, the use of water pumps and hoses will be implemented. Water will be dispersed gradually over vegetated areas to allow natural percolation. The natural topography of the desired area favours water distribution, as elevation changes from high to low from the outer to inner boundaries, respectively.

7. Outline preventive measures to be taken to prevent land erosion from runoff, on-site drainage water, and/or dewatering, as these have the potential to impact the water quality and quantity of natural water bodies.

To help maintain and prevent erosion, the construction process will take place in phases to help ensure all pre-existing vegetation is not removed at once. Vegetative buffers will occur along the boundaries of the proposed land to decrease the chances of erosion. Fueling will be done in designated areas, away from any water bodies or drainage pathways to reduce the chances of contamination via spills. Land disturbance will be planned in drier periods to reduce the risks associated with erosion and excavation procedures. The proposed site will be monitored, and the plan updated and/or revised as needed to ensure effective quality maintenance.