

October 2, 2025

To: ARAComments@stradaquarry.com

Strada Aggregates Inc
30 Floral Parkway
Concord, ON L4K 4R1

cc: ARAapprovals@ontario.ca

Integrated Aggregate Operations Section
Ministry of Natural Resources
300 Water Street
Peterborough, ON K9J 3C7

Re: ERO (Environmental Registry of Ontario) Number 025-1005

Strada Aggregates Inc.

Instrument Type: Issuance of a Licence to remove over 20,000 tonnes of Aggregate annually from a Pit or a Quarry (/taxonomy/term/417)

www.StradaQuarry.com

On September 18, 2025, Strada Aggregates Inc. posted to the Environmental Registry of Ontario a Public Notice of Application under the Aggregate Resources Act for a licence to operate a Pit & Quarry in the Township of Melancthon, Dufferin County. A Public Meeting is scheduled for October 9, 2025 and a Comment Period to November 17, 2025.

*As part of this Application process, the Proponent is required to **demonstrate that no negative impacts are expected to water quantity and quality in this area.**^{1, 2}*

*As part of this Application, the proponent is also required to **demonstrate that the proposed Application will have no negative impacts on small streams and fish habitat near the escarpment face (east) of the Quarry.**^{1, 2}*

These headwater tributaries of the Pine River are mainly fed by spring and groundwater and are known to host sensitive cold water fish (Brook Trout).

The Applicant, by its own integrated transient modelling, has predicted reductions in Pine River headwater tributary streamflows of 20 to 35% at Horning's Mills during specific proposed Quarry project phases. Therefore the Applicant has not demonstrated that there will be no negative impacts for this Quarry development.

Furthermore, the Applicant's integrated Groundwater Model is underestimating dry weather streamflow at Horning's Mills by over 2x.

In my opinion, after reviewing up to 5 prior iterations and the thousands of pages of this pending Application, the Application is not complete and these public response dates should be deferred until a satisfactory completion state is achieved by Strada. The public and agencies should not have to respond to an incomplete Application now and further updated iterative submissions later.

¹ Ontario Ministry of the Environment, Conservation and Parks. January 30, 2024. Memorandum from L. Shen, Surface Water Specialist, Technical Support Section, Central Region to C. Broux, Senior Environmental Officer, Halton Peel District Office, MECP re: Surface Water Review: CBM Caledon Pit/Quarry ARA Application.

² Ontario Ministry of the Environment, Conservation and Parks. February 21, 2024. Memorandum from M. Picotti, Hydrogeologist, Technical Support Section to C. Broux, Senior Environmental Officer, Halton Peel District Office, MECP re: Groundwater Review: CBM Caledon Pit/Quarry ARA Application.

1.0 APPLICATION NOT COMPLETE

This Application does not include:

1.1 Fisheries

- Fisheries Population and Impact Studies in the principal downstream Pine River headwaters in the Quarry Influence Zones.
- Fisheries Population and Impact Studies in the downstream Horning's Mills Lake (Wallyngton), River Road Mill Pond and connecting waters.
- Fisheries Population and Impact Studies in the downstream Pine River Provincial Fishing Area and connecting waters.
- Historical Fish Hatchery and Culture context.

1.2 Wetlands

- Absolute changes in transient wetland flows (L/s) for the various Quarry Phases compared to existing.

1.3 Water Quantity Characterization

- Water Quantity Characterization of Upper Aquifer (Guelph) flow through the proposed Quarry Footprint.
- Water Quantity Characterization of the Lower Deep Aquifer (Gasport) flow through the proposed Quarry Footprint.

1.4 Water Quality Characterization

- Water Quality Characterization of agriculturally contaminated (nitrates) Upper Guelph Aquifers and emergent streams.
- Water Quality Characterization of deep, older pristine Gasport Aquifers and emergent streams.
- Water Quality Characterization of Guelph/Gasport mixed streams flowing into the Pine River Provincial Fishing Area.

1.5 Still Outstanding Routine Data Requests to Strada

The following existing data already in Strada's possession or easily obtained has been requested but refused on a number of occasions:

- Model Virtual Transient Flows (Monthly) STRs for all streamflow monitoring stations.

- Groundwater Monitoring Data in plottable .xls format for all operational site monitors to September 30, 2025 or other convenient recent 12 month time period that includes all site monitor wells.
- Streamflow quantity and quality monitoring data in .xls format as collected after August 2024 to September 30, 2025 including continuous quantity data at Strada installed gauges on the Pine River tributaries and elsewhere.
- Dry weather streamflow monitoring (single day) at the two Mill Lane tributaries and at 177 Main Street ('Canary' spring).
- Groundwater Quality Monitoring Results for all Pit / Quarry Site Monitors from September 2024 to September 30, 2025.
- Private monitoring wells (DW1 to DW5 and others) including quantity and quality updates to September 30, 2025.
- Community WELLness Survey results as completed to September 30, 2025.
- MECP Annual Pit Compliance Report for Year 2024 (unreported existing non-compliant below water table pit extraction activities, also 2023).

2.0 GROUNDWATER MODEL DEFICIENCIES

2.1 Strada's Groundwater Model

- Calibrated to faraway Everett / Alliston - Pine and Boyne River historic stream gauges.
- Only 3 to 4 months of Deep Aquifer (Gasport) on-site monitoring available at the time of the latest May 2024 model calibration.
- No model domain differentiation between Melancthon Old Survey higher recharge (well-drained loess, thin coarse glacial tills and Guelph bedrock epikarst) and lower recharge Melancthon New Survey (imperfectly to poorly-drained fine-textured soils and wetlands).
- No Pine River headwater streamflow integration to Honeywood Line or Prince of Wales Road areas.
- Edited MECP water well database not incorporated within the proposed Quarry influence zone.
- Recent Strada WELLness Surveys not incorporated within the proposed Quarry influence zone.

2.2 On-site Pump Tests

- No recent on-site pump tests in Guelph / Gasport Aquifer underground stream areas with the 2025 installed Monitoring Network in place to validate the model results and further confirm the Goat Island Aquitard bulk hydraulic characteristics.

2.3 Model Alternative Scenarios

- No alternative Quarry footprint, infiltration/injection well and infiltration pond scenarios.

2.4 Alternative Quarry Scenarios

- No Quarry operating and recovery scenario for potential Quarry floor rupture with flooding (Lift 1 and Lift 3 Intervening Aquitard).
- No Quarry post-closure (2-Year) rehabilitation scenario.
- No alternative Quarry Phase 1 start-up at 4th Line southwest corner low hydraulic conductivity area.
- **No scenarios without mitigation to understand the worst case scenario.**²
- No groundwater quality (nitrates) treatment scenarios.

2.5 Adaptive Management

2.5.1 Contingency Infiltration Corridor

- No dedicated contingency infiltration corridor proposed for the east-central Quarry footprint and maintenance of natural seasonal groundwater flows to Horning's Mills and the Pine River headwaters.

2.5.2 Injection Well 24 / 7 / 365 Operation

- No 24 / 7 / 365 infiltration, injection well scenario required to maintain 4 season groundwater levels.

3.0 ILLUSTRATION – Predicted Stream Base Flow Reductions

By way of illustration, I enclose the following Figures related to the flawed existing transient groundwater model prediction of the Pine River headwater tributaries dry weather base flows.

Fig H.1.0 *Location of Strada / NVCA Surface and Virtual Modelling Stations in Horning's Mills Vicinity*

Fig H.2.1 *Field Observed Nottawasaga Valley Conservation Authority Pine River Base Flow (2008) near Prince of Wales Road, Mulmur (Pine River Provincial Fishing Area)*

Fig H.2.2 *Strada Transient Modelling of Pine River Base Flows near Prince of Wales Road, Mulmur (Pine River Provincial Fishing Area)*

The Applicant's streamflow simulation at the NVCA Pine River Prince of Wales streamflow observation site indicates that the Strada Model is estimating average streamflow more or less at this location. **However, transient dry weather (base) flow is an unacceptable 25% of actual observed stream base flow.**

Fig H.3.1 *Strada's Modelling (Simulation) of Monthly Average Transient Flows into Horning's Mills (Wallyngton Lake (Wetland NAT-18) by Proposed Quarry Phases*

The Applicant's simulated flow into Horning's Mills (Wallyngton) Lake NAT-18 wetland is provided for the Applicant selected Quarry Phases. **These Phases are not necessarily the extreme flow reduction phases.**

At face value, the maximum Quarry Phase 1 flow reduction during April wet weather conditions is ~34% and the maximum reduction during dry weather baseflow conditions is ~31%.

Fig H.3.2 *Strada's Modelling (Simulation) of Transient (monthly) Flows out of Horning's Mills (Wallyngton) Lake with Strada observed downstream flows at nearby Main Street and River Road.*

The Simulated Streamflow out of Horning's Mills (Wallyngton) Lake NAT-18 at face value demonstrates a **maximum average flow reduction of ~24% for Quarry Phases 1 and 4A in April wet weather and 21% flow reduction during September dry weather for Quarry Phases 1 and 2.**

Despite now having a full year of streamflow data at a number of stations, Strada has only disclosed observed streamflows on two dates – May 30, 2024 and August 15, 2024.

For observed streamflows at Station SW5, the Strada simulated streamflows underestimate the May 30, 2024 streamflow by 2.6x and for August 15, 2024 (Baseline conditions) streamflows are underestimated by 2.1x.

Station SW5 is at Main Street and River Road Horning's Mills a short distance downstream of Horning's Mills (Lake). Horning's Mills Lake (Wallyngton) is about 1.5 km directly downstream of the proposed Strada Quarry.

Fig H.4 *Deep Gasport Aquifer Groundwater Monitors*

Sparse deep (Gasport) monitor well network in the Quarry Area. Key OW25C Monitor upstream of Wallyngton Lake is within the proposed Quarry footprint. **There is inadequate sparse site coverage with no off-site dedicated groundwater monitors.**

These proposed Quarry Phase I maximum inflow and outflow reductions are the result of proposed Phase 1 mining right up to the property boundary along the common high hydraulic conductivity CBM Pit boundary without an accommodating Adaptive Management Buffer Zone.

Waterflow through the proposed Quarry is also anticipated to be underestimated by a similar 2.1 to 2.6x indicating the proposed Quarry dewatering and infiltration infrastructure will also be significantly undersized.

4.0 APPLICATION NOT SUFFICIENTLY COMPLETE

This Strada Application is not sufficiently complete to permit filing of meaningful efficient comments before November 17, 2025. The public and review agencies should not be forced to go through an extended, expensive iterative response process driven by Applicant multiple piecemeal submissions.

The Provincial Ministries should not, in effect, be endorsing a Quarry Application that by its owner estimates proposes to reduce streamflow at Horning's Mills Pine River headwater tributaries by up to 35% and underestimates Quarry / groundwater / streamflow by more than 2x.

Thank you for your expedient consideration.

Yours truly,



Garry T. Hunter, M.A.Sc., P.Eng.
President
Hunter and Associates

Enclosures: Figures as specified.

cc: see page 7

cc:

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