

DRAFT MEMO

To:	Mayor Darren White and Council, Township of Melancthon Denise Holmes, CAO
Cc:	Undisclosed
From:	Garry T. Hunter, M.A.Sc., P.Eng.
Date:	June 5, 2025
File:	21-407
Subject:	Strada Proposed Quarry ARA Site Plans January 31, 2025 Peer Review Comments

Introduction

The enclosed Peer Review comments provide an Overview Summary of Unresolved Issues with the Strada January 31, 2025 version Site Plan and Conditions. This is not intended to be a rigorous detailed summary at this stage. These comments are evolving. Strada has advised an updated set of Site Plans will be filed with MNRF as early as mid-June.

Additional Peer Reviewer comments on alternative Site Plan scenarios, adaptive management and performance criteria are provided in communications, including in: July 2024 (Site Plan Alternative), January 10, 2025 (Overview Summary), January 27, 2025 Continuing discussions following January 24, 2025 meeting and February 7, 2025 (Alternative Site Plan / Water Management Concepts / Adaptive Management Plan). **Strada's response may be characterized as: 'You are out of scope', 'we didn't ask for these comments, we think our Site Plan is correct'.**

The reader is directed to the Aeroustics Noise Impact Study (May 17, 2024) for an improved understanding of residential receptors (Aeroustics Fig 1), proposed Quarry Phasing/Lifts Benches (Aeroustics Fig 2 to 14 incl) and Acoustic Berms (Aeroustics Fig 15). However, this report may now be out of date as hydrogeological issues have not been resolved.

Related exhibits (selected) are provided by a separate email(s).

Strada January 31, 2025 Site Plan Version

1. The Strada Site Plans have been prepared based on the anticipated routine needs of a commercial quarry operation for access to preferred geological aggregate materials.
2. These Site plans are not optimized from the point of view of minimizing hydrogeological hazards and anticipated impacts on the neighbouring communities, farmlands and headwater streams.

DRAFT

June 5, 2025

1

3. The Applicant has not satisfactorily addressed the Hydrogeological Issues through this proposed legal Site Plan instrument.
4. Strada needs to ‘bite the bullet’ and improve its local Pine River headwater model conceptualization and calibration to transient (seasonal) streamflows and run a wider range of alternative quarry development scenarios.
5. The ‘Strada Team’ has no local agriculture expertise despite the site being adjacent to one of the most productive specialty crop agricultural landscapes in Ontario.

Provincial Policy Statement (2024)

6. The Strada Site Plan has not demonstrated that mineral aggregate extraction can be undertaken in a manner which minimizes social, economic and environmental impacts (s4.5.2.2).
7. The Strada Site Plans have not demonstrated how Quarry development may be undertaken without negative effects on the downgradient Pine River Headwaters and the Horning’s Mills community (s4.5.3.1) and on the surrounding agricultural landscape.
8. Furthermore, the Strada January 31, 2025 documents, as filed prematurely with Ontario Ministry of Natural Resources and Forestry, are not integrated, synchronized or complete. Technical references are not up-to-date.

Process Mediation

9. **Strada has arbitrarily decided it has addressed the January 10, 2025 issues as summarized by this Peer Reviewer at that date, and advised it is has now moved into the ‘process mediation stage’.**
10. **Strada has not addressed many of the Peer Review factual comments as determined through this Peer Review and contained in the 5-cycle document record. Strada would be well-advised to address these technical issues versus trying to mediate the ‘facts’.**
11. Fundamental to addressing these hydrogeological related impacts is the update of the Groundwater Model and modification of the Quarry Site Plan Footprint and Phasing as communicated to Strada to date by this Peer Reviewer.

Fisheries

12. Strada has not scientifically demonstrated compliance with the Fisheries Act, Fisheries and Oceans Canada (DFO) and the potential to negatively impact fish and fish habitat in the Pine River headwaters including downstream to the Pine River Provincial Fishing Area in Mulmur Township.

13. Based on the current Strada groundwater model, predicted stream baseflow reductions in the Pine River headwaters of up to 50% for some Quarry phases, the project will need to be submitted to DFO for review and approval.
14. Mitigation of harmful alteration, disruption and/or destruction of fish habitat and fish mortality in the Pine River Headwaters must start with Site Plan and operational revisions.

Overview

15. The Quarry extraction footprint proposed on the January 31, 2025 Site Plans is 65.7 ha (162.3 acres).
16. The proposed depth of extraction below original ground is up to 70 m (230 ft). The extraction depth below the water table is up to 55 m (180 ft).
17. These depths far exceed that of any other Niagara escarpment area dolostone aggregate quarry.
18. Water Management requirements will also exceed that of most Niagara escarpment area dolostone quarries and may approach that of the Town of Orangeville Drinking Water System.
19. The total in situ bedrock resource is about 29,000,000 m³.
20. For a maximum Licence Aggregate Production Rate of 2,000,000 Tonnes/yr and a rock density of 2.6 tonnes/m³, the proposed Quarry will have a minimum life of about 40 years.
21. This bedrock resource quantity includes an estimated 2,000,000 m³ of resultant manufactured rock fines, some of which may be marketed with the remainder retained as sediment on-site and transported off-site as airborne dust.
22. The Site Plans permit import of materials for blending with aggregates produced on-site. This import may extend the life of the Quarry.
23. The volume of 'glacial till' within the Quarry extraction footprint is estimated to exceed 4,000,000 m³.
24. The total amount of 'excess' fill that may be imported to the site for rehabilitation purposes is stated on the Site Plans as 7,100,000 m³.
25. Rehabilitation is currently understood to mean hydraulic barrier construction to exclude groundwater inflow into the deep quarry excavation.
26. Deep hydraulic barrier construction will likely require import of very low permeability materials in only limited volumes.
27. However, the Volume of Till and Excess Fill at about 11,000,000 m³ is enough to fill more than one third of the quarry excavation and permanently dam and divert ambient Aquifer flow.
28. This quantity is sufficient to build a 50 m high Quarry internal perimeter barrier with 3:1 side slopes.

29. No justification for this fill quantity is provided by Strada nor is this quantity represented on the Site Plans schematics.

Vertical Geodetic Elevation Reference

30. The Site Plans do not contain a vertical geodetic elevation reference.

Groundwater Model Uncertainty

31. Groundwater models are by nature uncertain because subsurface systems are complex and heterogeneous (NGWA White Paper 2017).
32. Bedrock fractures will increase the complexity of the system and thereby tend to increase uncertainty.
33. Calibration does not eliminate uncertainties – in an uncertain system many different conceptual models can be created that will fit the data.
34. There is no such thing as an “accurate” groundwater model. New data may change the model.
35. The Site Plans and the Environmental Assessments are based on absolute (blind) trust in Strada’s Groundwater Model.
36. This Strada Groundwater Model is opaque and has not yet been demonstrated ‘fit for purpose’.
37. The Groundwater Model simulations do not appear to have included:
- Quarrying without mitigation by Phases
 - Sudden Lift 2 Quarry Floor Rupture, Flooding and Pump Out
 - Use of pressure relief wells to lower water levels below the top of the Gasport in combination with Upper and Lower Hydraulic Barriers
 - Conditions for ‘Excess Fill’ at about 11,000,000 m³
 - Conditions 2 Years after Quarry Closure during initial Lake Filling
 - Lower Lake Levels with partial Gasport Hydraulic Barrier Removal at the east Quarry limit
38. There is no evidence that the Strada groundwater model has been informed by the Tatham Site groundwater monitoring, edited MECP water well records, Tatham streamflow data or Strada WELLness surveys. Requests for audit of input data have been refused.
39. The current groundwater model underestimates groundwater and stream baseflows (dry weather) by 2 to 4x.

40. The groundwater model simulated monthly average flow for NVCA Pine 1 stream gauging station at the outlet of the Pine River Fishing Area illustrates a base to average flow ratio of less than 25%.
41. This low base to average flow ratio would be considered poor for maintaining quality trout habitat (NRSI Jan 2025 s6.1.2, pg 143) despite the traditional Brook Trout history in the Pine River headwater streams.
42. The Groundwater Model at other simulated monthly streamflow sites also exhibit low base to average flow ratios.
43. Model assumptions are likely to be wrong, even if the local calibration is improved, despite best efforts by Strada's Consultants.
44. An adaptive management plan is required with provision for contingency risks.

Independent Pump Tests

45. Independent Pump Tests for individual Model Layer 4 and Model Layer 6 Aquifers have not been provided in the key Quarry footprint 'underground stream' area to validate the Model.
46. Historic pump tests are open hole and not isolated by the major Model Layer 4 and Layer 6 aquifers.
47. The current monitoring network is much improved compared to the historic monitoring network available for hydrogeological analysis at the former Goffco legacy pump test sites.

NRSI Natural Environmental Assessment

48. The NRSI January 2025 Strada Pit Natural Environmental Assessment is based on the fundamental Earthfx September 2024 Appendix E Assessment Report, the October 11, 2024 Earthfx and Tatham Engineering Level 1 and 2 Hydrogeological Assessment and the MHBC September 2024 Site Plans (see NRSI bibliography). These documents are out of date.
49. The NRSI Environmental Assessment does not recognize or integrate the Tatham 2024/2025 streamflow data.
50. The NRSI predictive Environmental Assessment is dependent on the Earthfx Groundwater Modelling contained therein – this Assessment must be considered speculative at this time until the Model is sufficiently updated to simulate groundwater supported transient headwater dry weather (base) streamflows.

Infiltration Infrastructure

51. No risk contingency adaptive management infiltration corridor is proposed along the eastern downgradient side of the proposed Quarry. A 150 to 200 m wide corridor is proposed by this Peer Reviewer.
52. Worse, the few proposed eastern infiltration injection wells are proposed to be located under the eastern noise berm where they will be inaccessible for maintenance and replacement as required.
53. Injection wells will be subject to clogging.
54. About 90% of the proposed Site Plan infiltration infrastructure recharges to the Upper Aquifers (Model Layers 1 to 4).
55. Only about 10% of the Site Plan infiltration infrastructure is proposed to recharge the deep Gasport aquifers (Model Layer 6) via two injection wells with a modelled capacity of only 7 L/s. This is not satisfactory for recharge of the downgradient Gasport Aquifers.
56. Strada has not provided any estimate of existing groundwater flow through by major Upper and Lower Aquifers. This Peer Reviewer has previously estimated a 50:50 flow split based on available Mega Quarry stream water chemistry for the Guelph versus Gasport Aquifers.
57. There is no commitment to operate groundwater and stream monitoring and infiltration systems 24 hours/day, 7 days/week and 365 days/year to maintain year-round downgradient groundwater flows to the Pine River Headwaters and the Horning's Mills community.
58. No monthly water budgets are proposed despite the model's claimed capability to simulate transient seasonal flows.
59. There are no proposed independent downgradient Third Line sentry monitoring wells other than private pumping domestic and farm wells. These private pumping wells are not suitable for Quarry influence and performance monitoring.

Constructed Wetlands and Woodlands

60. Considering the proposed Quarry is likely to arbitrarily increase wetland area adjacent to NAT1, NAT2, NAT3, NAT14, NAT19 and/or NAT20 without landowners' consent, the logic for constructing a new limited area cosmetic wetland on-site is not apparent.
61. The Woodlands on the east boundary of the Quarry may have to be sacrificed, in part, to establish an adaptive management infiltration corridor to priority recharge Model Layer 4 and Model Layer 6 Aquifers.

Source Water Protection

62. The Site Plans do not provide any specific source water quantity and quality protection measures for the 2 km Quarry Influence Area including about 600+ residents.

Water Quality and Quantity Performance Criteria

- 63. There are no quantity and quality performance criteria proposed for infiltration systems and downgradient water level maintenance.
- 64. The agriculturally contaminated Upper Aquifers (Model Layers 1 to 4) and the Pristine Deep Aquifer (Model Layer 6) are not recognized and separated in the proposed very limited Site Plan Water Management Infrastructure.
- 65. There are no adaptive management concepts proposed.
- 66. The only treatment of Quarry Contact water proposed is reduction of Total Suspended Solids in settling ponds on the Quarry floor.
- 67. There are no quantitative predictions of Hydrocarbons and AN/FO emulsion residuals in Quarry Contact water.
- 68. Strada is proposing that water quality treatment will be determined in consultation with MECP through the ECA Application Process. Sampling and monitoring of the discharge water to the infiltration facilities is proposed to be determined as a condition of the ECA.
- 69. The Management of the agriculturally contaminated Upper Aquifers and the Pristine waters of the deep Gasport Aquifers is a significant issue that must be addressed at the Site Plan level.
- 70. The Site Plan notes must provide a framework for the type of water quantity and treatment infrastructure required together with performance criteria.

Groundwater Monitoring

- 71. The proposed groundwater monitoring network (smorgasbord) is not classified by geological formation or groundwater model layers.
- 72. The proposed network as proposed by Earthfx (April 14, 2025) includes unsuitable dry, destroyed, inactive wells and wells within the proposed extraction and berm footprints (see Exhibits).

Quarry Lake

- 73. No justification is provided for the Site Plan proposed rehabilitated Quarry Lake water surface elevation of 487 m asl.
- 74. This Site Plan Lake water level elevation does not seem to recognize the post extraction (rehabilitation) removal of the Model Layer 4 (Lift 1 and 2) and Model Layer 6 (Lift 3) Hydraulic Barriers on the east property boundary as proposed in the Earthfx / Tatham January 31, 2025 Hydrogeological Level 1/2 Report Summary (s6.1, pg 25).
- 75. No prediction of the time to fill the excavated Quarry Lake has been provided.

Extraction Phasing

- 76. The initial proposed sinking cut and Phase 1 is located in the 3D underground stream area at the rear of Melancthon Pit No. 1 where maximum dewatering may be anticipated from the outset of Phase 1 extraction.
- 77. Pump Tests are required to better define the 3D characteristics of this stream.
- 78. Based on the Model Layer 4 and Model Layer 6 hydraulic groundwater contours and historic Goffco open hole pump tests, the northeast or southwest proposed Quarry quadrant footprints offer much more favourable hydrogeological conditions for Phase 1 / Lift 1, 2 and 3 Quarry establishment.

Groundwater Diversions / Hydraulic Barriers

- 79. The Site Plans propose import of excess fill and extensive utilization of hydraulic barriers (dams) in front of Model Layer 4 and Model Layer 6 Aquifers to minimize groundwater flows into the proposed Quarry excavation.
- 80. The 'barriered' Quarry excavation will act as a partial or complete dam and divert upgradient Model Layer 1 to 4 and Model Layer 6 groundwater flow from west of the 4th Line around the proposed Quarry.
- 81. This groundwater flow diversion, together with poorly located and shallow Site Plan infiltration infrastructure, will result in groundwater mounding (water table rise) around much of the proposed Quarry.
- 82. Rising water levels may also result in adverse root zone flooding impacts to low-lying farm fields, tile drainage systems and drainage outlets (Wallace, Bonnefield/VanderZagg, Coe, Thomas, Squirrel, Noble, Lundy and other farms).
- 83. There is no tolerance in low-lying and depressional agricultural fields for upslope migration of groundwater discharge zones and increased water table levels.
- 84. Rising water levels may also impact wetlands with related tree kill as well as resulting in wetter internal and low-lying adjacent residential lots (NAT1, NAT2, NAT3, NAT14 and/or NAT20).
- 85. Strada proposes to reduce mounding west of the Quarry by construction of a perforated drainage tile with invert at about 488 m asl in the top of bedrock epikarst along the 4th Line.
- 86. This perforated drainage tile may reduce impacts on Duivenvoorden, Wallace, Martin and Bonnefield/ VanderZagg lands to the north west. This drain will have to be maintained in perpetuity if hydraulic barriers are left in place after Quarry abandonment.
- 87. Groundwater diverted around the southwest limit of the proposed Quarry and infiltrated from the South and Central Infiltration Ponds will mainly discharge to the Boyne River headwater tributaries.

88. Groundwater diverted by the Quarry barriers around the northwest side of the quarry in Lot 15 and from the north infiltration trench in Lot 14 is anticipated to mainly discharge to NAT 14 Marshall Brook (Mill Lane West Tributary) and through NAT16, ultimately to the River Road Mill Pond tributary inlet.

Streamflow Reduction up to 50%

89. The east side of the Quarry towards Horning's Mills Community including Horning's Mills Lake and the River Road Mill Pond (NAT18 and NAT16) will be in a groundwater flow 'shadow' with drawdowns and stream baseflows (dry weather) reduced by 30 to 50 % or even more for some Quarry extraction phases.
90. This baseflow reduction will decrease below the River Road Mill Pond towards the Pine River Provincial Fishing Area in the Mulmur Township.
91. Groundwater flow reduction of this magnitude is anticipated to have adverse impacts on Aquatic Life and Fisheries and on Drinking Water Quality in the Pine River Headwaters and Horning's Mills community due to reduced dilution as well as contaminant introduction to the Model Layer 6 Pristine Aquifers by infiltration of Quarry Contact water and the agriculturally contaminated Model 1 to 4 groundwater.

Geotechnical Hazards

92. The proposed Lift 3 (Model Layer 6) Hydraulic Barriers after construction will experience increasing hydraulic head as progressive extraction moves away from newly constructed hydraulic barrier wedges.
93. In the extreme case on the 4th Line, north and east sides of the Lift 3 Phase 3 A extraction area, water pressures external to the barriers may build up towards 50 m above the equivalent Lift 3 Quarry floor elevations.
94. These Lift 3 hydraulic barriers, as sketched on the Site Plans, will fail unless the remedial measures including relief wells as proposed by Strada's Geotechnical consultants are implemented.
95. The Site Plan geotechnical notes and hydraulic barrier sketches do not track the Geotechnical Consultant Report recommendations.

Maximum Quarry Face Height

96. Quarry faces will exceed the proposed Site Plan specified 15 m maximum Lift height. Intermediate bench horizontal offsets will be required where the Site Plans show coincident Lift heights of 35 m or so.

Setbacks

97. Neighbouring private property owners are entitled to the buffers provided by the setback provisions of the ARA operational standards.
98. The Central Infiltration Pond must be setback from the property boundary by a standard 30 m. This pond has a higher hydraulic head at 494 m asl vs the adjacent NAT19 wetland at about 491 m asl. Space is required to repair a potential overflow breach.
99. Due to the shared nature of NAT19 wetland with the neighbour, a 30 m on-site setback from aggregate operations is also recommended for this feature. This wetland setback should contain a continuous on-site berm at a height of about 496 m asl to prevent default surface water outflow to the neighbouring property.
100. Private property owners are also entitled to standard fencing on the Pit / Quarry property boundary. Notwithstanding Site Plan Notes to the contrary, fences on the existing pit licence boundaries are in disrepair or absent, or at times replaced by farmer owned electric fences on grazed lands.

Fly Rock

101. Fly rock is not expected beyond a 500 m distance from the Quarry extraction limits (Aggregate Resources Act O.Reg 244/97).

Berm Heights

102. Perimeter Berms should be a minimum of 6 m above the centreline elevation of 4th Line and above the ground elevations of active farm fields as measured 50 m offset from the Quarry site property boundary.
103. These heights reflect the large sized and height farm machinery periodically operating on roads and on immediately adjacent lands.

Dust

104. The Quarry operator must recognize and correct excessive (visible) dust fall impacts to farm crop foliage, pasture lands (grazing) and residential yards located within the 2 km influence zone of the proposed quarry.

Wash Plant

- 105. The Quarry wash plant is proposed to be located on the pit floor, at an elevation of 494 m asl or lower, from 225 to 375 m south of the proposed quarry extraction limit and 180 m west of the east site boundary.
- 106. This proposed wash plant vertical elevation is lower than the Tatham (January 2025) determined maximum water level for this pit floor area.

Traffic Impacts

- 107. The Site Plans limit Highway Truck Trips to 60 trucks /hour (120 passes/hour) for the combined Pit and Quarry operation.
- 108. During the September 15 to October 15 each year there are upwards of a dozen potato harvesting fleets (convoys) working in Melancthon and Mulmur. These fleets each typically include two six row windrowers and a four row harvester which elevates potatoes from these sixteen three feet wide rows into twenty tonne equivalent tandem or tri-axle trucks travelling along side. A truck is filled in approximately 10 minutes by each harvesting fleet.
- 109. Therefore each harvesting fleet fills about 6 trucks/hour (12 passes) and in total about 72 trucks/hour (144/passes). Many of these trucks pass through the County Roads 124 and 17 intersection at Masonville, either travelling to home farm storage complexes in north Melancthon or in the Alliston area.
- 110. Potato farmers advise that they already experience noticeable harvesting delays passing through this intersection with existing Strada truck and other traffic. Furthermore, County 17 is becoming an informal bypass to avoid increasing traffic congestion at Shelburne.
- 111. Strada's Traffic Impact Study (August 20, 2024) undertook traffic counts on November 15, 2022 outside this peak potato harvesting period. This study was apparently unaware of this seasonal peak farm traffic or the lesser planting peak during May.
- 112. If the Quarry proceeds with doubling of existing pit production, new taper and turning lanes will likely be required for east bound County Rd 17 truck traffic turning onto southbound County Road 124.
- 113. The northbound County Rd 124 existing left turning lane also likely needs to be lengthened.

Conclusion

- 114. The proposed Strada January 31, 2025 Site Plan version have unacceptable and unnecessary environmental impacts.
- 115. These impacts include unacceptable streamflow reductions in the Pine River headwaters, unacceptable water quality degradation due to diminished flow dilution to the Pine River

headwaters and introduction of degraded quality untreated Quarry Contact and Upper Aquifer Nitrate contaminated Water into the proposed Quarry infiltration (drinking) water.

116. The current January 31, 2025 Site Plans with diversionary hydraulic barriers and poorly located infiltration infrastructure will adversely impact aggregate pits (existing and planned) and farm fields surrounding much of the Quarry extraction footprint due to induced rising watertable levels.
117. There is zero tolerance for rising water table levels in low-lying farm field depressions and swales of this proposed Quarry environment.
118. The current January 31, 2025 Site Plans with Strada acknowledged inherent stream baseflow reductions up to 50% also will have adverse impacts on the Pine River Headwater fisheries.
119. The Strada groundwater model underestimate of dry weather (base) stream flows by 2 to 4 times indicates that groundwater flows in the quarry and ongoing water management requirements are also underestimated.
120. Furthermore, critical Quarry extraction scenarios have not been analyzed.
121. The sparsity of Site Plan groundwater performance criteria frustrates the application of compliance tests, why monitor?
122. The January 31, 2025 Site Plans versions are not suitable for approval.

Garry T. Hunter, M.A.Sc., P.Eng.
Civil Engineer, Hydrogeologist and Environmental Systems Planner
Hunter and Associates

Enclosure: Index of Selected Peer Review Communications April 25, 2024 to June 5, 2025

STRADA

Proposed Melancthon Quarry

Peer Review

Technical Submissions

(Selected)

April 25, 2024 to June 5, 2025

2024:

Apr 25	(Email + 4 Figures)	Email to A. Kimberley (Tatham Engineering) re: Groundwater Quality - Nitrates and Sodium 2019 to 2023
Oct 4	(Memo + Fig H.29)	Proposed Strada Quarry - Deep Gasport Aquifer Water Quality Sampling - Sept 11, 2024
Dec 10	(Memo)	Strada Peer Review Supplemental Hydrogeological Information Requests
Dec 20	(Email)	Email C. Cosack and N. Kotyck re: Options to deal with Strada's refusal to respond to G. Hunter's requests for supplemental information

January 2025:

Jan 10	(Email + Issues List)	Strada Proposed Quarry Major Issues List
Jan 10	(Email + Memo)	Strada - Level 1 and Level 2 Hydrogeological Assessment Summary including Appendices A to E
Jan 10	(Memo)	Strada October 2024 Proposed Quarry Site Plans and Impact Assessment
Jan 10	(Email + Draft Letter)	Strada 4 th Release Peer Review - Overview Summary January 10, 2025
Jan 21	(Email + Memo + Photos)	Dec 10, 2024 Strada Peer Review Supplemental Hydrogeological Information Request
Jan 22	(Email + Fig H.3 + Memo)	Preliminary Phasing Extraction Plan - Possible Alternative for Consideration
Jan 23	(Email Chain)	Potential Presentation - DRAFT3 - up to 50% flow reduction
Jan 27	(Memo)	Strada January 24, 2025 Meeting - Continuing Discussion

February 2025:

Feb 7	(Email + Draft Memo + 7 Figures)	Strada Proposed Quarry Alternative Site Plan / Water Management Concept and Supporting Figures
Feb 7	(Email)	CBM Quarry - Blast Impact Assessment Report (revised July 2023)
Feb 7	(Email Chain)	Strada Proposed Quarry Site Plan Concept - Support Figures

March 2025:

Mar 7	(Email + Attachments)	Pine River Baseflows - Meeting Follow-up
Mar 10	(Email + 2 Memos)	CBM Quarry - FOI - MECF /MNRF Memos - with NDACT Peer Reviewer Annotations
Mar 10	(Email + Memo + 4 Figs)	Proposed Strada Model Calibration Improvements
Mar 10	(Email)	Model Layer 4 and 6 High Quality Hydraulic Surfaces (Potentials) and Subtraction - Offset Model Inferred Zones of Increased Flow
Mar 10	(Email)	Pine River - Headwater Streams Aquitard Support

May 2025:

May 14	(Email)	Request to Strada for clarifications
May 30	(Email)	Vulnerable Water Wells with less than 10 m drawdown

June 2025:

June 5	(Email + Memo)	Strada Proposed Quarry Fifth Cycle Peer Review January 13 to April 17, 2025
June 5	(Email + Memo)	Strada Proposed Quarry ARA Site Plans January 31, 2025
June 5	(Emails + Memo)	Strada Proposed Quarry Related Exhibits to May 30 and June 3, 2025 communications

June 5, 2025