(CBM-Caledon Quarry Proposal)

CAART COMMENT SUMMARY TABLE RESPONSE #1 – [KARST]

Please accept the following as feedback from the Caledon Aggregate Review Team (CAART). Fully addressing each comment will expedite the potential for resolution of the consolidated CAART comments and individual agency objections. **Additional comments may be provided once a response has been prepared to the comments raised below and additional information provided**.

Colour Code	Description
	Resolved
	Resolved subject to additional information being provided to CAART Reviewers (e.g., Implementation Guide, Report Addendums)
(no colour)	Response provided, but no further action taken or required by Project Team

	Initial CAART Comments (July 2024)	Page / Section	Applicant Response (Feb 12 2025)	CAART Response (November 07, 2025)
1.	The investigation did not identify any indicators that would suggest underground dissolution conduits, sink patterns, or caves (major karst features) in the study area. We generally concur with the information provided in Appendix K and as it relates to the Water Report Level 1/2.	Appendix K, Section 5	Acknowledged 12-Feb-2025	Resolved.
2.	Variability of hydraulic conductivity in bedrock is typically controlled by secondary porosity features such as fractures. The degree, connectivity and aperture of fracturing primarily controls the hydraulic conductivity. It is our experience that the upper range of 10^{-2} m/s also correlates with highly weathered or carbonate rock with dissolution fractures (minor karstic fractures). Some evidence of minor dissolution features is also noted in the geophysical information. Therefore, it appears that the bedrock has the potential for minor karstic conditions that may influence the impacts to groundwater conditions associated with the quarrying. It is our opinion implementation of the proposed monitoring program will be critical to ensuring	Page 39, Section 5.4.2	Acknowledged 12-Feb-2025	Resolved.

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	the conceptual model developed as part of the investigations remains relevant and the potential for impacts are properly characterized in a proactive manner. The requirement for submission and review of the water monitoring program is considered a key element of this process. The progression of the Quarry from the North (Main) area to the South is considered advantageous to determine the potential for impacts to the private domestic supply wells and surface water features to the south.			
3.	According to the information provided, there is a level of separation between most surface water features and Gasport/Amabel formation (targeted for extraction). We concur with these findings.	Section 5 through Section 6	Acknowledged 12-Feb-2025	Resolved.
4.	One seep was identified to the southeast of the South Section, just below the contact of the Gasport/Amabel Formation. It is understood that this occurs at (or near) the contact of the Gasport/Amabel and the Shaley Dolostone/Cabot Head Formation. Based on the nature of the seep, it doesn't appear to be associated with Karst and is a result of the intersection of the steep slope with the groundwater table. In our experience, such seeps and springs are common along the cut banks, where the water table intersects the ground surface. During a brief site visit and walk along the southern trails bordering the credit river (south of Cataract Rd.), there appeared to be two (2 additional) seepage features evident by creeks/streams. They appeared to be on private property south of the rail trail so were not accessed during the visit. A simple map showing their potential location is enclosed for reference. It is recommended that these potential seeps be mapped, investigated, and included in the Water Level 1/2 Study. If they are found to be seeps that provide ecological function, it is recommended that they be added to the monitoring network.	Page 88, Section 6.8.4	Based on information obtained through FOI requests regarding water taking activities at the Aquaterra (now Primo) bottled water operation immediately upgradient from the area identified by GMBP, WSP understands that there are seeps in the area they noted. We understand that these seeps are being monitored by Primo and that data is being reported to the MECP as part of Primo's PTTW. The technical details released to date via our FOI requests have been limited. Given the location of these seeps relative to the proposed pit / quarry development and the proposed groundwater mitigation system, it is unlikely that the proposed pit / quarry will impact them either during operation or post-rehabilitation. WSP's integrated groundwater and surface water model indicates that with the proposed mitigation measures in place, groundwater levels will be maintained in this area. CBM will monitor groundwater levels at their on site wells located between proposed pit / quarry and the seepage area, and if needed, CBM will respond accordingly to ensure this seepage area is not impacted. If a licence is granted, CBM will approach the landowners and offer to include them in the pit / quarry monitoring program. Their participation would be entirely voluntary and not a requirement of the monitoring program should the landowner choose not to participate. 12-Feb-2025	Resolved: after discussions with the applicant and additional clarification provided by additional documentation including the Technical Memorandum dated October 17th, 2025, and the Groundwater Mitigation System Design Report dated May 2025. The applicant has acknowledged that additional seeps may exist outside of the Site. However, it is noted that they may be inaccessible due to the locations falling within private property, and any inspections or monitoring would subsequently require access by the property owner(s). GEI and the applicant recognize that participating in the monitoring program would be required. The applicant has indicated they are in consultation with Primo, the water bottling facility located just SE of the site, and hopes to obtain more potential information and/or data regarding seeps in the area.
5.	It is noted that that the reports identify potential risks to neighboring supply wells. If the numerical modelling is assumed to be accurate, it is reasonable to expect that	Section 9.3	CBM has proposed a robust monitoring program for the Caledon Pit / Quarry project, which will allow for early detection of a decline in groundwater levels around the site. CBM has also committed to	Resolved: after discussions with the applicant and additional clarification provided by additional documentation including the

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	the neighboring wells will experience the drawdown as predicted, or potentially more, if localized increases to hydraulic conductivity are found. Therefore, we recommend that the monitoring program proposed ensure that it is pro-active in addressing potential impacts, in that there is a trigger level considered whereby remedial measures are taken prior to the loss of water supply. We recommend that the Water Report Level 1/2 Report that the ability to drill deeper wells and continue provide adequate water supply (quality and quantity) be verified for those that experience potential impacts. In some cases, the water quality and quantity in deeper units may not be suitable for supply.		conducting a second private well survey before the start of operations and would also invite the opportunity to monitor private wells that are proximal to the site that may be potentially impacted, should the owner of the well wish to join the monitoring program. CBM has also included changes to its proposed well response plan (see Attachment #1), strengthening its commitment to ensuring their neighbours water supplies are not adversely impacted by the proposed pit / quarry development. The impact assessment only identified six wells that have significant or moderate potential to be impacted; five are bedrock wells in the Gasport Formation and one is an overburden well (Table 9-3, Golder 2023), and the maximum predicted drawdown in these wells due to proposed pit / quarry activities ranged from 0.7 to 3.4 m. Available data indicates that these private wells could be successfully deepened if the drawdown from pit / quarry activities is disruptive to an individual water supply. We note that 60 of the 88 water wells in the area (Table 3-2, Golder 2023) currently draw groundwater from all, or in part from bedrock units below the Gasport Formation, so it is more than reasonable to infer that it is possible to deepen shallow wells successfully, if required. 12-Feb-2025	Technical Memorandum dated October 17th, 2025, and the Groundwater Mitigation System Design Report dated May 2025. The purpose of the initial CAART comment was to reinforce the importance of the monitoring program and encouraged a pro-active approach to ensure the surrounding water supply users are able to maintain use of their well. The applicant has indicated that will perform a second private well survey prior to the commencement of operations. They have also indicated that where potential exists for adverse impacts, they will add the private well to the monitoring network upon approval of the property owner. While this is dependent on the participation of the property owner, the direct monitoring will the strengthen the ability of the applicant to proactively identify impacts via groundwater monitoring, modelling, and comparisons between predicted and actual groundwater levels. The applicant has also indicated that proactive approach may include proactive well deepening to ensure water supply and will implement a well complaint response program.
6.	It would be easier to interpret the cross section if the boundaries of the quarry were shown in the cross sections, similarly to the site plans A001-A004. The window in the top right showing the locations of the cross sections should show or reference the wells so the reader can better correlate the groundwater levels to the various conductivities and other metrics presented in the report.	Figures 4-5 & 4-6	WSP has prepared additional cross-sections through the site, in addition to Figures 4-5 and 4-6, and have included pit / quarry limits and points of reference to improve readability on these figures (see Attachment #2). 12-Feb-2025	Resolved.
7.	Recommendation #1: That the potential seeps south of Cataract be mapped, investigated and included in the Water Level 1/2 Study. If they are found to be seeps that provide ecological function, it is recommended that they be added to the monitoring network.	N/A	See response to Comment #4 12-Feb-2025	Resolved: See CAART response to Comment #4.
8.	Recommendation #2: That the ability to drill deeper wells and continue provide adequate water supply (quality and quantity) be verified for those that experience potential impacts, based on the Water Report Level 1/2 Report.	N/A	See response to Comment #5 12-Feb-2025	Resolved: See CAART response to Comment #5.

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9.	Recommendation #3: The following recommendation will likely be realized through the PTTW and or monitoring process, as opposed to the ARA/planning process since it may not be appropriately captured in Site Plan Notes. The recommendation is that the annual monitoring program ensures it is proactive, requiring implementation of remedial measures prior to cessation of water use from area domestic wells.	N/A	See response to Comment #5 12-Feb-2025	Resolved: See CAART response to Comment #5.