

**Zoning By-law Amendment – Aberfoyle South Lake Pit**

**May 26, 2026**

<b>Consultant</b>	<b>Comments</b>
Stovel & Associates – Township Planner	See attached letter
GRCA	See attached letter
Source Water	See attached letter
Valcoustics – Township Noise Consultant	See attached letter
VAQMS – Township Dust and Air Quality Consultant	See attached letter
Township Building Department	No Comments
Township Roads Department	Road improvements required for approval.
Salvini Consulting – Township Traffic Consultant	See attached letter
GEI – Township Engineer	See attached letter
Aboud & Associates – Township Ecologist	See attached letter
Township Fire Department	No comments
Township By-law Department	No comments
Landmark Environmental Group – Township Landscape Architect	See attached letter
Harden Environmental – Township Hydrogeologist	See attached letter

**Stovel and Associates Inc.**  
*Planners, Agrologists and Environmental Consultants*

May 21, 2026

Township of Puslinch  
C/O Ms. Monika Farncombe  
7404 Wellington County Road 34  
Puslinch, ON  
N0B 2J0

RE: Aberfoyle South Lake Pit – Peer Review  
Part of Lots 18, 19 and 20  
Concession 1  
Township of Puslinch  
County of Wellington

Dear Ms. Farncombe:

Stovel and Associates Inc. (“SAI”) was retained by the Township of Puslinch to review the proposed Aberfoyle South Lake Pit. The proponent is CBM Aggregates (“CBM”), a Division of St. Marys Cement Inc. (Canada).

SAI reviewed several documents that were submitted in support of this proposal, including:

- Aggregate Resource Evaluation, WSP Canada Inc. November 2023.
- Proposed Aberfoyle South Pit Expansion: Agricultural Considerations, MHBC. September 2023.
- County of Wellington Official Plan Amendment Application. November 2023.
- ARA Site Plans – Aberfoyle South Lake Pit – MHBC. November 2025.
- Best Management Practices Plan for the Control of Fugitive Dust at Aberfoyle South Pit Expansion, WSP Canada Inc. October 2023.
- CBM Aberfoyle South Pit Expansion - Planning Act Applications Letter. MHBC. November 29, 2023.
- Review and Entry into the Ontario Public Register of Archaeological Reports: Archaeological Assessment Report Entitled, "Stage 1 and 2 Archaeological Assessment Aberfoyle South Pit Expansion (CBM Lake Pit), 6947 Concession Road 2, Puslinch, Part of Lots 18, 19, 20, Concession 1, Geographic Township of Puslinch, County of Wellington, Ontario", Dated Aug 28, 2023. MCM. November 2023.
- Maximum Predicted Water Table Report. WSP Canada Inc. November 2023.

- Noise Impact Assessment. WSP Canada Inc. November 2023.
- Planning Report & Aggregate Resources Act Summary Statement. MHBC. November 2023.
- Public Consultation Strategy Requirement. November 2023.
- Completed Wellington Drinking Water Source Protection Screening Form. November 2023.
- Stage 1 and 2 Archaeological Assessment. Golder Associates Ltd. (now WSP Canada Inc.). August 2023.
- Stage 3 Archaeological Assessment. Revised Report. WSP Canada Inc. June 2023.
- Stage 3 Archaeological Assessment. Original Report. WSP Canada Inc. June 2023.
- Transportation Impact Study. TY Lin International Company. November 2023.
- Water Report Level 1 / 2. WSP Canada Inc. November 2023.
- Visual Impact Assessment (“VIA”) - MHBC. March 2024.

The Township retained several consultants to complete a peer review of the supporting documents for this proposed project.

In addition, the Township prepared an objection letter to the Ministry of Natural Resources and applicant on March 16, 2026. The Township is considered an official objector to the proposed licence application. It is understood that the County of Wellington and the Ministry of Natural Resources are also objectors to the licence application.

Since the submission of the objection to the MNR, the Township has received several documents from the applicant. These include the following:

- ARA Site Plans – Aberfoyle South Lake Pit – MHBC. March 2026 – GRCA.
- ARA Site Plans – Aberfoyle South Lake Pit – MHBC. April 2026.
- Responses to GRCA Comments – Proposed CBM Aberfoyle South Lake Pit – WSP. April 10, 2026.

The Township’s peer review (and most recent correspondence on this file) are as follows:

1. Natural Environment - Aboud & Associates Inc. (March 13, 2026).
2. Hydrogeology - Harden Environmental Services Ltd. (March 3, 2026).
3. Engineering - GEI Consultants Canada Ltd. (March 6, 2026).
4. Traffic - Salvini Consulting Inc. (February 27, 2026).
5. Aggregate Resources - GEI Consultants Canada Ltd. (May 11, 2026).
6. Agriculture – Stovel and Associates Inc.
7. Visual – Landmark Environmental Group Ltd. (March 10, 2026).
8. Noise – Valcoustics Canada Ltd. (March 11, 2026).
9. Dust – Vooren Air Quality Management Services Inc. (February 12, 2026).

The Township did not retain a licensed archaeologist to review the Archaeological Assessment (Stages 1, 2 and 3) reports.

The Township has also received comments from the public regarding the proposed ZBA application. These comments have been considered by the Township's peer review team.

At this stage, there remain significant differences of opinion between the Township's peer review team and the applicant's consultants. The main issue focuses on the potential for impacts on the natural environment, i.e. Mill Creek and the significant wetland complex, due to extraction below the water table.

SAI also completed a technical peer review of the Aggregate Resources Act ("ARA") Site Plan, Agricultural Considerations Report, and Planning Report & Aggregate Resources Act Summary Statement ("Planning Report"). In this letter, we have deferred to the other members of the Township's Planning and Development Review Team to provide comments on the technical matters of the submission, but it is recognized that the recommendations each of these reports will either be implemented on the ARA Site Plan and/or summarized in the Planning Report. For offsite measures, such as improvements to Concession 2, a Development Agreement or Haul Road Agreement may be required. At this stage, it would be premature to set out the content and structure of such Agreements.

Given the date of the Planning Report & Aggregate Resources Act Summary Statement (November 2023), an update will be required to address the policies of the 2024 Provincial Planning Statement ("PPS"). The Planning Report currently addresses the relevant provisions of the Provincial Policy Statement, 2020 and the Growth Plan for the Greater Golden Horseshoe. The report should be updated to address consistency with the PPS, 2024. Similarly, the County of Wellington Official Plan was updated prior to the Township of Puslinch receiving the Zoning By-law Amendment ("ZBA") application. The applicant's Planning Report should address the relevant policies in the County of Wellington Official Plan ("OP") that were applicable at the time of submission of the ZBA application.

In addition, the OPA schedules will need to be updated to incorporate the recent changes to the Site Plan. The applicant should formally request this change through the County of Wellington. Similarly, the applicant should confirm that the proposed ZBA reflects the current Site Plan and proposed development concept. Comments regarding the use and appropriate zoning of the existing dwelling on the property have been previously circulated to the applicant, and remain outstanding.

Table 1 sets out technical comments from SAI. The structure of the table generally follows the format provided in the MHBC response letter (dated November 26, 2025). SAI reserves the right to modify/add comments based on the submissions from the applicant and the comments from the Township Planning and Development Team.

At this stage in the review process, SAI has not had the opportunity to review and summarize all of the comments from the Township's peer review team. Therefore,

additional technical comments from the Township's peer review team are anticipated.


There are a few noteworthy items that have been proposed by the applicant that should be acknowledged, namely:

- Public Liaison Committee ("PLC") – the applicant has suggested that a PLC could be established to promote open communications. The PLC could assist in addressing any future concerns with respect to monitoring/mitigation, complaint resolution and discussion of any additional concerns. Participation in the PLC has yet to be determined.
- Best Management Plans – the applicant has referenced corporate BMPs, i.e. Trucking Policy and Fuel Handling Plan. These BMPs will need to be provided by the applicant. Following a review of the BMP's by the Township's peer review team, modifications to the BMP's may be required. The BMP's should be implemented on the Site Plan. Reference in the BMP's to Complaint Resolution Protocol should be consistent (as much as possible) such that several different complaint procedures exist for different issues. This streamlining process will help to minimize confusion for the public and the Township.
- Road Improvement and Maintenance – the current integrity of Concession Road 2 needs to be assessed. It is the Township's position that the applicant is responsible for undertaking the necessary geotechnical investigations. The Township team will set out the requirements and costs for the required studies that the applicant will be required to complete.
- Future Ownership of the Site – following rehabilitation of the proposed pit, the future ownership of the property should be considered by the Township and the applicant.
- Comprehensive Rehabilitation of Existing CBM Pits – CBM has offered to meet with the Township to engage in discussions regarding the future landforms and coordinated rehabilitation of the existing pits.

In summary, CBM has proposed to establish a mineral aggregate operation (a pit) at part of Lots 18, 19, and 20, Concession I in the Township of Puslinch. The application proposes to extract sand and gravel, both above and below the water table. The site is located in proximity to Mill Creek and associated wetlands/forests. Input from the Township's peer review consultants (i.e., hydrogeologist, engineer, and ecologist) will be important to determine potential impacts on the natural environment and township resources. At this stage, concerns expressed by the Township's peer review team remain outstanding.

We trust that you will find these comments to be of assistance. Should you have any concerns or questions, please do not hesitate to contact me.

Yours truly,

  
Robert P. Stovel, M.Sc., M.C.I.P., R.P.P., P. Ag.

**Table 1 – Comment Table**

Comment #	SAI Comment	MHBC Response	SAI Comment – 05/21/2026
1. Page No. 1	<p>The proposed licence limits are irregular in shape. SAI requests a copy of the digital survey file for the licence and extraction limits and clarification as to how these limits were determined. Given the irregular shape of the proposed licence and extraction limits, it is important to ensure that the limits can be replicable in the field and on the Site Plan.</p> <p>Question/Comment: How were the licence limits established? Were the proposed limits surveyed?</p>	<p>The licence boundary follows the limits of the adjacent provincially significant wetland which was field verified by WSP in consultation with GRCA. MNR's current practice is that significant natural features that are not proposed to be extracted or used accessory to an aggregate operation should not included in the licence. The extraction limits will be marked in the field by a surveyor prior to start of pit operations.</p>	<p>Outstanding.</p> <p>SAI still has a concern with the accurate delineation of the Licence Limits and recommends a survey by an OLS to establish the Licence Limits for this proposed pit.</p> <p>Similarly, SAI has a concern with the delineation of the proposed Zones on the zoning schedule. The proposed zones appear to be floating images.</p>
2. Page No. 1	<p>It is noted that the proposed pit licence does not include the existing residential structure, yet a small agriculture field (that includes the archaeological resource area AiHb-374) is included within the proposed licence limits. Clarification of the rationale for the proposed licence limits should be provided.</p>	<p>The house on the property is currently used as an office for the farm use and is not proposing to change. It is not included in the licence as it is not directly related to the proposed pit operation.</p>	<p>Township has confirmed that a change of use permit is required.</p>

	Question/Comment: Explain why the house was not included in the licence. Explain the future use of the house.		
3. Page No. 1	<p>If no extraction or processing is proposed for the lands surrounding AiHb-374, why is this area included in the Licence?</p> <p>Question/Comment: Explain why this resource was included in the licence.</p>	Archaeological resource area AiHb-374 is located within the licensed area at the northern edge of the subject lands that is not proposed for extraction or any aggregate-related activities as identified on the site plan. This land would remain under licence to ensure the protection of the identified archaeological resources and to provide potential additional lands for natural enhancement if required.	Confirmation required from MMC regarding zoning of archaeological resources.
4. Page No. 1	<p>The Site Plan illustrates water monitors located beyond the proposed licence limits. These monitors are referenced in the Hydrogeological Technical Recommendations. Monitors located beyond the proposed licence limits may need to be incorporated into a monitoring program implemented via a Development Agreement.</p> <p>Question/Comment: Monitoring stations are included on lands</p>	<p>See WSP response #1 in Response to Stovel Review Comments (October 22, 2025).</p> <p>As occurs on other licensed sites, monitoring can occur beyond licence limits and is still enforceable under the ARA in accordance with the corresponding site plan notes and conditions. MNR has not raised this as an issue on this application.</p>	<p>Defer to Harden.</p> <p>Confirm if offsite monitors will need to be addressed in Development Agreement, including proper abandonment.</p>

	owned by the applicant beyond the licence limit. Explain why. Also, will the ARA requirements ensure that wells located beyond the licence limits are monitored properly and maintained/abandoned under the control of the ARA?		
5. Page No. 1	Question/Comment: Is the applicant seeking two entrances to the proposed pit?	Only one new entrance is proposed to access the proposed pit. The second entrance is an existing entrance used to access the house and farm. Pit trucks will not be permitted to use the existing entrance. This is identified on the site plan.	Township staff to confirm if two entrances are permitted.
6. Page No. 1	Question/Comment: It is unclear how the vegetation limits shown on the Site Plan were demarcated. Do these limits reflect the surveyed dripline limits for adjacent woodlands and trees?	The on-site wetlands were field verified by WSP in consultation with GRCA. Other features identified on the Existing Features Plan are from base mapping and airphoto interpretation.	Defer to Township's ecological consultant to confirm if the dripline of the forest edge needs to be surveyed.
7. Page No. 2	Question/Comment: The depth of extraction extends deeper than the aggregate deposit shown in geological cross-sections. Recommend revising extraction depth.	See WSP responses #4 and #7 in Response to Stovel Review Comments (October 22, 2025).	Defer to Harden.
8. Page No. 2	It is recommended that the applicant consider the use of a	Consistent with other nearby CBM feeder pits, a scale would not be required as	Outstanding.

	<p>scale to ensure proper truck weights before entering the municipal road. The scale will also assist the applicant in tracking volumes being shipped from the proposed pit.</p> <p>Question/Comment: Recommend that the applicant include a scale to ensure that all trucks are scaled before they enter the municipal road.</p>	<p>extracted materials are weighed and tracked through loaders that load highway trucks.</p>	<p>SAI remains concerned that a scale will not be used at the site. SAI requests additional information to explain the loading process at other pits, i.e. Lanci Pit and Neubauer Pit, and how weights are regulated and recorded as the aggregate is removed from the respective licence.</p>
<p>9. Page No. 2</p>	<p>Additional vegetative plantings and sculpted berms are measures that could be considered. The Landscape Architect should develop schematics and a vegetation planting concept that can be implemented in the Site Plan. If the berms are to be seeded with grass mixture, it is recommended that berm sloping should be made gentler to ensure that the berms can be mowed and maintained. The preference would be to have a landscaped entrance that is aesthetically appealing, especially in areas</p>	<p>Additional tree screening has been added to the revised ARA Site Plan. CBM is open to further enhancements to berm design and landscaping and is willing to discuss this with the Township and County.</p>	<p>Defer to Township's Landscape Architect. Information is required on native plant species to be used and the appropriate stocking density and spacing. Detailed schematics should be provided, reviewed and implemented on the Site Plan.</p>

	<p>immediately adjacent to existing rural residences.</p> <p>Question/Comment: Entrance enhancements are recommended.</p>		
10. Page No. 2	<p>The proposed pit entrance is in proximity to residential receptors north of Concession Road 2. SAI reviewed the VIA. The results of the VIA are that sight lines into the proposed pit are evident in both the private and public realms. The VIA report concludes that proposed berms and tree plantings provide for screening of the operation. SAI recommends that the applicant seek the assistance of a Landscape Architect to improve the visual characteristics of this entrance and the sight lines along the municipal road. Additional vegetative plantings and sculpted berms are measures that could be considered. The Landscape Architect should develop schematics and a vegetation</p>	See response to comment #9.	Defer to Township's Landscape Architect.

	<p>planting concept that can be implemented in the Site Plan. If the berms are to be seeded with grass mixture, it is recommended that berm sloping should be made gentler to ensure that the berms can be mowed and maintained. The preference would be to have a landscaped entrance that is aesthetically appealing, especially in areas immediately adjacent to existing rural residences. Question/Comment: Additional input from a Landscape Architect is recommended to assist in creating an aesthetically appealing sight line from the municipal road.</p>		
<p>11. Page No.2</p>	<p>The berm schematic illustrates a berm height of 1.5 m yet the acoustic berms require a height of 4 m. A revised schematic should be presented to illustrate how the berm will be developed within the 30 m setback. As previously noted, revised side</p>	<p>The typical berm schematic provided in the bottom left corner of Page 2 (Operational Plan) illustrates a minimum berm height of 4 m, not 1.5 m. The sloping of the berms is in accordance with standard requirements under the Aggregate Resources Act.</p> <p>The VIA erroneously indicated that 6927</p>	<p>Defer to Township's Landscape Architect.</p>

	<p>sloping along the municipal road may be required to allow for regular maintenance. Conversely, input from a Landscape Architect may be needed to ensure that the berms are aesthetically appealing and vegetated in a manner that effectively blends into the surrounding landscape. It is recommended that the authors of the VIA provide clarification concerning the potential sight lines into the pit from 6927 Concession Road 2. What sight lines are visible into the pit from this adjacent property? Will equipment be visible and from where?</p> <p>Question/Comment: Recommend that the schematic be revised to illustrate a 4 m high berm (as recommended by the acoustic engineer) and a gentler slope next to the municipal road to ensure that it can be maintained/mowed.</p>	<p>Concession Road 2 is located north of the road whereas it is situated south of the road and the house is approximately 575 m from the road. Views from the house towards the site are restricted due to topography and intervening mature vegetation which is illustrated on Photo 24 of the VIA.</p>	
12. Page No. 2	In reviewing the Operations Plan, it was noted that as extraction	This is not atypical for below water extraction operations. Detailed schematics	Outstanding.

	<p>proceeds to the final phase, the area for stockpiling/loading and extraction will be reduced to a point where there appears to be limited room left for the operation of equipment. It would be beneficial to provide a schematic illustrating in greater detail how the final phase will be operated given that there appears to be limited room to extract, then stockpile, then load and scale trucks before exiting the pit. The truck turnaround area should be shown with safe operating distances between the dragline excavator, loaders, and trucks. Sufficient room must be provided to ensure that truck queuing on the municipal road does not occur. SAI requests that this detailed schematic be provided to illustrate how the final phase will be extracted. Question/Comment: This is the final phase of the pit. It is recommended that a detailed phasing diagram illustrate how the final stages of this phase will</p>	<p>are not required for final extraction phases. This was not required for other recent CBM below water applications nor has MNR requested such information as part of their review of the ARA Site Plan.</p>	<p>Phase 5 is described on Page 2 of the Site Plan. Perhaps the information that SAI is requesting would be included in Phase 5.</p>
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	be extracted.		
13. Page No. 3	Question/Comment: It is not clear what other licences will receive the aggregate from this site for processing, or if aggregate will be shipped to market without processing. It is recommended that this note be revised to specify which licences will receive aggregate from this proposed pit and that a scale be installed at this pit.	As stated in the Planning Report and Transportation Impact Study, the existing McNally Pit (Licence #5497) will receive aggregate from the proposed pit for processing. No material from the proposed pit will be shipped to market without processing.	A mechanism to ensure that aggregate from the proposed pit only goes to Licence #5497 will be required. Preferably, a note could be drafted for the Site Plans to ensure oversight from the MNR.
14. Page No. 1 and 3	If this structure remains, site-specific zoning will be required to recognize the use of this building. We understand that the Township's acoustic consultant has identified a potential concern about the existing house not being included in the assessment. Question/Comment: What is the adjacent residential use? Is the applicant considering using the existing house as a residence? If not, remove this variation. If yes,	The house on the property is currently used as an office for the farm use and is not proposing to change. It is not inhabited and this will not change as a result of this application. This site plan variation has been removed on the revised ARA Site Plan.	Is the house zoned to permit it to be used as an office?

	the acoustic analysis will need to be updated to include this house as a receptor.		
15. Page No. 3	Question/Comment: The depth of extraction extends deeper than the aggregate deposit. Recommend revising related notes.	See WSP responses #4 and #7 in Response to Stovel Review Comments (October 22, 2025).	Defer to Harden.
16. Page No. 3	Question/Comment: It is not clear if this note should be inserted into the Site Plan as the recommendation deals directly with the municipal road which is beyond the jurisdiction of the MNRF and ARA, and the Transportation Impact Study is not a documentation requirement of the ARA.	The MNR has not raised this as an issue on this application. The recommendations also include conditions that would apply to on-site activities including internal notice signs and entrance requirements.	Defer to GEI and Salvini. Note, recommendations for features beyond the licence limits cannot be enforced by the MNR. SAI does agree that recommendations that address on-site activities must be included on the Site Plan.
17. Page No. 3	It is understood that the applicant prepared and submitted a BMPP for fugitive dust emissions. An Air Quality/Dust Emissions Study typically precedes the preparation of the BMPP. Regardless, the key recommendations of the BMPP	The existing Site Plan notes ensure that CBM is required to operate in accordance with the Dust BMPP. However, key recommendations of the BMPP have been added to the revised ARA Site Plan.	Defer to Township's Dust Expert.

	should be recorded on the Site Plan. Similarly, the complaint protocol should be included (and address complaints related to water, trucking, dust, and noise). Question/Comment: Include these notes on the Site Plan.		
18. Page No. 3	Question/Comment: Protocol to address noise and trucking complaints, not just water. Include the complaint protocol on the Site Plan.	For their other nearby operations, CBM has best management practices and protocols for dealing with such complaints. These procedures would also be utilized at this site. CBM is also willing to commit to a Public Liaison Committee for this site to promote regular, defined and open communications, and is willing to discuss this further with the Township and County.	Outstanding.  If the applicant is relying on BMP and complaint protocols that are employed at other pits, we respectfully request copies of these documents to review.  The complaint protocols from all the disciplines should be included on the Site Plan and it would be preferential that there would just be one comprehensive complaint protocol. This would avoid confusion.
19. Page No. 4	Question/Comment: Recommend removing the notes related to the importation of fill.	The MECP through Excess Soil Regulations determined that pits and quarries are acceptable sites to receive excess soils. This is carried forward with specific requirements outlined in O. Reg. 244/97.	Outstanding.  It is still unclear if excess soil is required, given that a soils budget has not been prepared. Please provide a soils budget and

		<p>Allowing some importation of excess soil will help facilitate rehabilitation and the construction of the proposed flood control measures.</p>	<p>calculations in support of the need for excess soil.</p> <p>Additional notes may be required on the Site Plan given the volume of proposed excess soil exceeds 10,000 m<sup>3</sup> to be consistent with O. Reg. 244/97 and 406/19. The structural integrity of the flood attenuation features should also be confirmed, given that these berms could be saturated and there is no provision for perpetual maintenance of the berms and drainage pipes. A schematic should be prepared for the flood attenuation features (berms) and the discharge pipe. Confirm if the discharge pipe and associated infrastructure will be located entirely in the licenced area. Confirm maintenance requirements for the discharge pipe. Township Engineering and Ecological consultant to provide additional comments regarding the tile drain and discharge pipe.</p>
<p>20. Page No.4</p>	<p>Question/Comment: The depth of extraction extends deeper</p>	<p>See WSP responses #4 and #7 in Response to Stovel Review Comments</p>	<p>Defer to Harden.</p>

	than the aggregate deposit shown in geological cross-sections. Recommend reducing the depth of extraction and the rehabilitated contours.	(October 22, 2025).	
Site Plan Modifications	<p>We have reviewed the comments from the Township's Ecological and Hydrogeological Peer Review consultants. Concerns were expressed related to the following (amongst others):</p> <ul style="list-style-type: none"> <li>• Are the setbacks next to natural heritage features sufficient?</li> <li>• Should berms be located close to adjacent natural heritage features?</li> <li>• Is the depth of extraction justified given that boreholes were terminated 5 m above the proposed pit floor?</li> <li>• Will the future pond overflow its banks and flood adjacent land and environmental features? A detailed topographic survey may be required to determine the existing elevations between the proposed extraction area and the</li> </ul>	<p>Please refer to WSP's response to Aboud's comments (October 21, 2025).</p> <p>The Site Plan has been revised taking into account these comments.</p>	Defer to Harden and Aboud.

	<p>adjacent natural heritage features. Modifications to the Site Plan may be required to address these types of concerns.</p>		
<p><b>Agricultural Considerations Report</b></p>			
<p>1</p>	<p>It is our understanding that the County has determined that the subject property has an underlying designation of Secondary Agriculture. We also note that the County has requested that the applicant address the Agricultural Impact Assessment provisions (4.6.5) set out in the County of Wellington Official Plan. In reviewing the assessment criteria, the “potential interference with the movement of agricultural machinery on roads” has not been documented in the Agricultural Considerations Report. Consultation with adjacent horse operations should also occur to determine the use (if any) of Concession 2 for horse-riding activities.</p>	<p>As a result of the repeal of the Growth Plan, the Provincial Agricultural System mapping only remains in effect for the Protected Countryside of the Greenbelt for which this site is not located. The site is not designated Prime Agricultural in the County’s Official Plan.</p> <p>The site is also not designated Secondary Agricultural based on a review of Schedule B7 of the County’s Official Plan.</p>	<p>Outstanding.</p>

Planning Report and Aggregate Resources Act Summary Statement			
2	It is understood that the Planning Report is reliant, to some extent, on the findings of other technical reports. Given this fact, an update of the Planning Report may be required following technical report updates that are the result of the peer reviews completed by the Township's Planning and Development Review Team.	This can be discussed with the Township and County.	Outstanding.  An update of the PJR is needed to ensure that the relevant policies of PPS 2024 are addressed.
3	As previously noted, the applicant should clarify the rationale for the proposed licence limits in proximity to the existing house and the irregular licence boundary.	Please see response to Site Plan Comments #1 & #2.	SAI still has concerns related to the house and future use/zoning of this feature.
4	Also, the rationale for the use of the term "Expansion" should be provided, as there are policy implications with interpreting the proposal to be a pit expansion.	As a result of comments received on this matter, CBM has decided to rename the proposed pit to "Aberfoyle South Lake Pit" to avoid confusion with the expansion terminology. It should be noted that the Growth Plan was repealed in October 2024 and is no longer in effect.	No concern.

5	At this stage, it is recommended that a Holding Bylaw be required to implement considerations related to the haul route. A Development Agreement with the municipality will be required.	Please refer to the GM BluePlan comments dated February 6, 2024. This can be further discussed with the Township however road considerations can be dealt with separately from the rezoning application.	Understood but this item remains Outstanding.
6	The future Zoning Bylaw Amendment (“ZBA”) will need to address the use of the existing house and other structures. The use of these structures may need to be recognized in the ZBA.	The existing house and structures are located outside of the proposed license area. These will remain zoned Agriculture (A) and are not subject to the proposed ZBA.	Outstanding.
7	The delineation of the proposed site-specific Natural Environment – XXX zone may need to be revised based on the outcome of the Natural Heritage and Hydrogeological concerns set out in the Township’s peer review comments.	Acknowledged.	Outstanding.  See #16 below for additional comments on zoning.
8	The Planning Report should address the need for imported fill/excess soil. Also, a volume estimate of existing soil	Please see response to Site Plan comment #19.	Outstanding.  Soil volume calculations should be provided.

	<p>resources that would be stripped from the proposed extraction area should be prepared. A soil budget that compares existing available soil resources versus soil needed for rehabilitation should be prepared. In general, given that the pit is to be extracted below the water table, there appears to be sufficient onsite resources available for rehabilitation and this proposed pit would not represent a good candidate for imported fill/excess soil and it is recommended that the notes related to the importation of fill/excess soil be removed from the Site Plan.</p>		
9	<p>An estimated volume of the mineral aggregate resource was provided by the applicant's consultant and summarized in the Planning Report. The volume calculations should be reviewed based on the proposed extraction plan, given that the depth of the proposed pit is to the elevation of 285 masl. This</p>	<p>See WSP responses #4 and #7 in Response to Stovel Review Comments (October 22, 2025).</p>	<p>Defer to Harden and GEI.</p>

	represents a 20 m depth of extraction; however, an extraction depth of 12.5 m was reported in the WSP Aggregate Resource Evaluation. It is recommended that the proposed pit floor depths be adjusted to an elevation that has been substantiated by borehole results and suggested by WSP.		
10	It is understood that the future intended rehabilitated end use for the site is a small lake with ecological enhancements. Will the rehabilitated property remain in private ownership, or will the lands be deeded to the municipality, should the Township want the lands?	This would be premature to determine at this time. However, should the Township be interested, CBM would be open to discussing this with them	Noted.
11	In terms of future consultation, it is recommended that the applicant copy the Township with communications with the Department of Fisheries and Oceans and Indigenous communities.	CBM is required to undertake consultation with Indigenous communities in accordance with the delegated procedural aspects of duty to consult. Please contact MNR for further information. Communications with the Department of Fisheries and Oceans can be provided to the Township upon request.	Noted.  Please forward communications with/from DFO.
12	It is understood that geotechnical work needs to be scheduled on	This has been addressed through TyLin and GMBP.	Outstanding.

	the municipal road. It is recommended that the applicant contact the Township directly to arrange for this work program, including the preparation of a borehole map and schedule. The details of this program can be worked out with municipal staff.		
13	Page 32 of the Planning Report indicates that: "Best management practices and a spills protection plan will be in place for on-site fuel storage". The Site Plan indicates that there will be no fuel storage onsite (Page 3 of 5, Note J-1). This should be clarified. The applicant should be advised that the Township will require a copy of the Best Management Plans for Spills Control and Fueling Activities.	The Planning Report is incorrect in this matter. As indicated on the site plan, mobile fuel trucks will be used for fuelling of equipment and there will be no fuel storage on site. In addition, all fuel handling on site shall be done in accordance with applicable Technical Standards and Safety Authority ("TSSA") Standards and CBM's Best Management Practices. CBM has previously provided their Spills Control Plan to the Township but can do so again if required.	Outstanding.  SAI requests a copy of the CBM Spills Control Plan.  Ideally, the Spills Control Plan should address the re-fueling component for onsite machinery. This policy will be reviewed in consultation with Aboud and Harden.
14	It is also recommended that the applicant consider a Trucking Policy. This policy would address concerns related to truck movements and complaints from the public. A copy of the Trucking Policy should be provided to the	CBM has utilized similar policies in other situations and is open to developing such a policy for this application.	Outstanding.

	municipality.		
15	The Planning Report should address the following policy of the PPS, 2020: '2.5.3.2 Comprehensive rehabilitation planning is encouraged where there is a concentration of mineral aggregate operations.'	This is addressed through the details and conditions included on the Rehabilitation Plan. The proposed final landform takes into account surrounding land uses as well as approved rehabilitation plans for the other licences. Rehabilitation has occurred and continues to occur on other CBM licences along Concession 2 e.g. surrendered McMillan Pit, rehabilitation at Lanci Pit and McNally Pit, etc. CBM would like to meet with the Township to engage in discussions regarding future landforms and coordinated rehabilitation. This topic had previously been discussed at a high-level and CBM would like to re-engage on these discussions if the Township is open to it.	Outstanding.  Reference to the new PPS policy is 4.5.3.  Acknowledged that the applicant would like to meet with the Township to engage in discussions regarding future landforms and coordinated rehabilitation of CBM sites.
16. Proposed ZBA			SAI has reviewed the proposed ZBA. The details of the proposed uses must still be explored. In addition, SAI has previously raised concerns regarding the accurate delineation of the Licence Limits. This concern also relates to the proposed zones. Other uses, such as wayside permits or wayside quarries, do

			not seem to be relevant to the subject proposal. Additional work will be required to clarify the proposed ZBA.
--	--	--	--



Administration Centre: 400 Clyde Road, P.O. Box 729 Cambridge, ON N1R 5W6

Phone: 519-621-2761 Toll free: 1-866-900-4722 Fax: 519-621-4844 [www.grandriver.ca](http://www.grandriver.ca)

May 25, 2026  
Via email

Meagan Ferris, Manager of Planning and Environment  
County of Wellington  
74 Woolwich Street,  
City of Guelph, ON N1H 3T9

Monika Farncombe, Planning and Corporate Services Coordinator  
Township of Puslinch  
7404 Wellington Road 34  
Puslinch, ON N0B 2J0

Dear Meagan Ferris and Monika Farncombe,

**Re: Official Plan Amendment OP-2023-03 and Zoning By-Law Amendment D14-CBM 6947 Concession 2, Township of Puslinch  
St. Marys Cement Inc. (Canada) - CBM Aberfoyle South Lake Pit**

Grand River Conservation Authority (GRCA) staff have reviewed the above-noted Official Plan Amendment applications which proposes to amend Schedule B7 of the County of Wellington Official Plan to allow for an aggregate extraction operation, and amend the Township of Puslinch's Zoning By-law to permit an Extractive Zone on the property.

### **Recommendation**

GRCA's previous comments have been addressed satisfactorily. Therefore, we have no objection to the approval of the above noted applications. Please see below for our detailed comments.

### **Documents Reviewed by Staff**

Staff have reviewed the following documents submitted with this application:

- Comment Matrix - WSP Responses to GRCA's February 20, 2026, prepared by WSP Canada Inc., April 10, 2026
- Aberfoyle South Lake Pit Expansion Site Plans, prepared by MHBC Planning, revised March 2026.

GRCA previously comments on the above noted applications, with our most recent comments dated February 20, 2026 (ZBA application) and March 19, 2026 (OPA application).

### **GRCA Comments**

GRCA staff's previous comments have been addressed satisfactorily, therefore, we have no objection to the approval of the above noted application.

We request digital files for the wetlands to update our mapping. The GIS data must be in a Esri Geodatabase Feature Classes or GeoPackage Feature Classes. Spatial data must use

Projected CRS - NAD83 CSRS v8 Zone 17 (EPSG: 22717), and Vertical CRS - CGVD2013 (EPSG: 9245).

As per our previous comments, any grading activity proposed within the 30 m regulated area adjacent to the wetland, and prior to the issuance of the aggregate license, will require a permit from the GRCA.

GRCA staff acknowledge receipt of the Below Water Table Aggregate Application review fee of \$42,850.

Should you have any questions, please contact the undersigned at 519-621-2763 extension 2319 or [cfosterpengelly@grandriver.ca](mailto:cfosterpengelly@grandriver.ca).

Sincerely,



Chris Foster-Pengelly, M.Sc.  
Supervisor of Planning and Regulations  
Grand River Conservation Authority

Copy:           CBM Aggregates, owner (via email)  
                  Neal DeRuyter, MHBC Planning, agent (via email)  
                  Justine Brotherston, Township of Puslinch (via email)



02/12/2026

## Memorandum

To: Monika Farncombe - Planning and Corporate Services Coordinator, Township of Puslinch  
Justine Brotherston - Director of Corporate Services/Municipal Clerk, Township of Puslinch  
Courtenay Hoytfox - CAO, Township of Puslinch

Cc: Stan Denhoed - Senior Hydrogeologist, Harden Environmental Services Ltd.  
Rob Stovel - President, Stovel and Associates Inc.  
Kevin Thompson - Lawyer, SV Law

From: Keira Martinson - Source Protection Coordinator, Wellington Source Water Protection  
Reviewed By: Kyle Davis - Risk Management Official, Township of Puslinch

**RE: Aberfoyle South Lake Pit, 6947 Concession 2, Township of Puslinch  
Zoning-By-law Amendment**

Wellington Source Water Protection (WSWP) staff have had the opportunity to review the submitted documents in support of the above noted application. This property is located within a Significant Groundwater Recharge Area and on the edge of the draft Wellhead Protection Area for water quantity (WHPA-Q) with a significant risk level. Our review was completed to ensure the activities at this property meet the requirements of relevant Source Protection Plan and County of Wellington Official Plan policies.

### *Clean Water Act Section 59 Notice & Risk Management Plan:*

A Section 59 Notice and Risk Management Plan are not required for this proposal. If the nature of the development changes, Notices may apply and Risk Management Plan may be required.

### *Land Use Planning:*

#### ***Responses To Wellington Source Water Protection Review Comments – Proposed CBM Aberfoyle South Lake Pit - WSP Canada Inc., dated October 22, 2025***

1. WSWP defers to the Township Hydrogeologist with respect to comments 1-5 in the above-mentioned document.
2. As outlined in comment 6 in the above-mentioned document, it is noted that there will be no aggregate washing on site, and no plan for water taking on site.

#### **WSWP request that the owners or their agents submit the following plans, reports or documentation to the satisfaction of the Township Risk Management Official:**

1. Documentation that any unused wells are decommissioned as per *Ontario Regulation 903* once the monitoring program is finalized. If no unused wells are present on the property, please confirm this in a future submission.



For more information, please contact [sourcewater@centrewellington.ca](mailto:sourcewater@centrewellington.ca).

Sincerely,



Feb 12, 2026

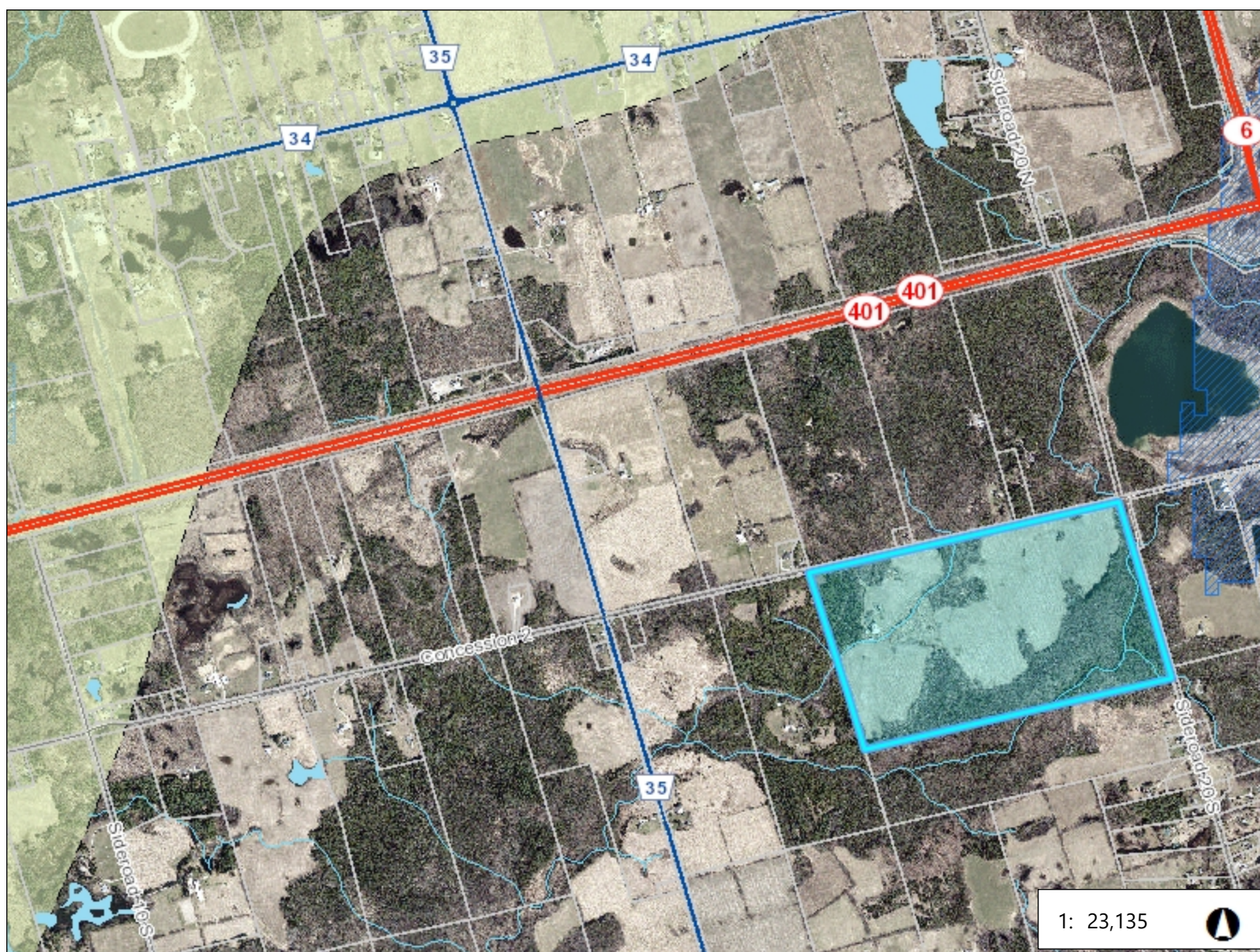


Feb 12, 2026






















Keira Martinson  
Source Protection Coordinator  
519-846-9691 ext 283  
[kmartinson@centrewellington.ca](mailto:kmartinson@centrewellington.ca)


Kyle Davis  
Risk Management Official  
519-846-9691 ext 362  
[kdavis@centrewellington.ca](mailto:kdavis@centrewellington.ca)

Attachments: Vulnerable Area Maps



**Legend**

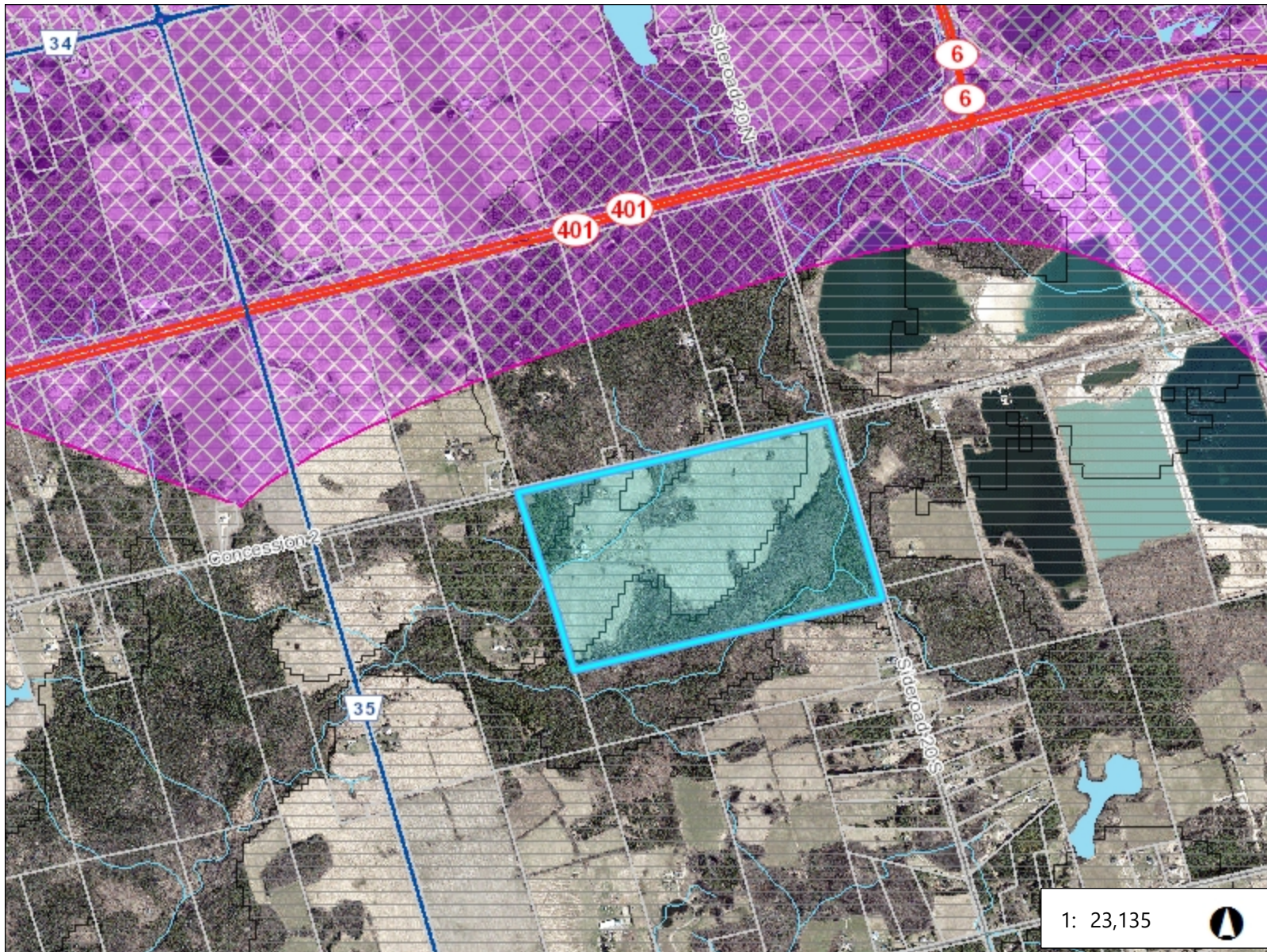
-  Parcels
- Roads - Small Scale**
  -  Local Road
  -  County Road
  -  Highway
-  Waterbodies
-  Watercourses
- Well Locations**
  -  Existing
  -  Proposed
- Issue Contributing Area**
  -  Chloride
  -  Nitrate
  -  Sodium
  -  TCE
- Wellhead Protection Area**
  -  A
  -  B
  -  C
  -  D
- Vulnerability Score**
  -  10
  -  8, D; 8; 8, C
  -  2, 4, 6 (A, B or C)
  -  2,4,6, D; 2,4, D; 2, 4, 6 (D); 4, D; 6,
-  HVA

1: 23,135 



This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.  
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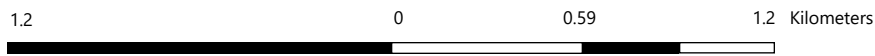
**Notes**



Legend

- Parcels
- Roads - Small Scale**
  - Local Road
  - County Road
  - Highway
- Waterbodies
- Watercourses
- Well Locations**
  - Existing
  - Proposed
- WHPA Q1\_Q2\_Boundary
- WHPA Q1\_Q2**
  - Approved
  - Draft
- SGRA
- RoadsLookup

1: 23,135



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Notes

March 11, 2026

Township of Puslinch  
7404 Wellington Road 34  
Puslinch, Ontario  
N0B 2J0

Attention:           Monika Farncombe  
[mfarncombe@puslinch.ca](mailto:mfarncombe@puslinch.ca)

**VIA E-MAIL**

**Re:   Peer Review of Response Letter to Noise Impact Study Peer Review  
Aberfoyle South Pit Expansion  
Puslinch, Ontario  
VCL File: 123-0460**

Dear Ms. Farncombe:

We have completed our review of a letter regarding “Response to Valcoustics Canada Ltd. Peer Review of the Noise Study Completed in Support of the Aggregate License Application for the Proposed CBM Aberfoyle South Lake Pit”, dated October 31, 2025, prepared by WSP Canada Inc. (WSP).

Our comments are outlined herein.

- a)    WSP should confirm that the movement of aggregate material to the existing Aberfoyle South Pit will not result in additional off-site noise impacts due to increased truck activity.
- b)    In the Road Traffic Noise Prediction (Attachment 2), what do these items represent?
  - a.   Road grade mode of 2?
  - b.   Leq of 0.00 dBA for Highway 401 (4<sup>th</sup> column on page 19 of the pdf)?
  - c.   Reference Leq of 63.60 for Highway 401 (15<sup>th</sup> column on page 19 of the pdf)?
  - d.   Leq of 54.85 for Highway 401 (16<sup>th</sup> column on page 19 of the pdf)?
  - e.   Av?
  - f.   Hs?
  - g.   Heff?
  - h.   Ad?
  - i.   Af?

- j. Ap?
- k. Ah?
- c) The ORNAMENT road traffic noise prediction model is not recommended for source to receiver distances greater than 500m. How was the calculation to predict Highway 401 traffic noise, with a source to receiver distance of more than 1,000 m done?
- d) The response to comment e) refers to commitments intended to reduce equipment noise under the best practices on the Site Plans. Where is this included?
- e) The source table in response f) a indicates truck sound power level of 102 dBA. However, response f) a (2) states that a sound power level of 103 dBA was used for the trucks. Review of the sample calculations in Attachment 1 indicate a sound power level of 102 dBA was used for the trucks. Further clarification is needed.
- f) Response f) a (7) states that sound power levels of the line source are based on the truck's speed. What speed was used to model the truck movements?
- g) One of the recommendations of the noise study is that prior to operations commencing, sound measurements of the equipment to be used on site be undertaken to confirm maximum emission levels are not exceeded. The response to f) a (8) is that the sound power levels in the table are average sound power levels. What are the maximum sound power level limits that the recommended measurements are to be compared against?

Based on our review of the noise study prepared in support of the Aberfoyle South Pit Expansion, there are a few items, as outlined above, that require further clarification.

If there are any questions, please do not hesitate to call.

Yours truly,

**VALCOUSTICS CANADA LTD.**

Per:   
**John Emeljanow, P.Eng.**

JEV  
2026-03-11 Peer Review V2.0.docx



Vooren Air Quality Management Services Inc.

February 12, 2026

Monika Farncombe  
Planning and Corporate Services Coordinator

Township of Puslinch  
7404 Wellington Rd. 34,  
Puslinch, ON, N0B 2J0

Dear Monika

**Re:** Air Quality Peer Review  
Rezoning Application for CBM Aggregates, Division of St. Marys Cement Inc.  
Proposed Aberfoyle South Pit Expansion

The Township of Puslinch received an application to permit aggregate extraction under the Township of Puslinch (the "Township") Zoning By-law and the County of Wellington Official Plan. The application pertains to lands located at 6946 Concession Road 2, Part of Lots 18, 19 and 20, Concession 1 in the Township of Puslinch (the "Site"). We ("VAQMS") were retained to undertake peer review of the air quality aspects of the application. The application was filed by CBM Aggregates ("CBM"), Division of St. Marys Cement Inc. for the Proposed Aberfoyle South Pit Expansion.

The VAQMS Peer Review considered the following reports and correspondence provided as part of the submission:

1. Best Management Practices Plan for the Control of Fugitive Dust at Aberfoyle South Pit Expansion, prepared by WSP Canada Inc., dated October 2023 ("Dust BMPP");
2. Noise Impact Assessment for Aberfoyle South Pit Expansion, prepared by WSP Canada Inc., dated November 2023 ("Noise Report");
3. Response to Valcoustics Canada Ltd., Peer Review of the Noise Study Completed in Support of the Aggregate Licence Application for the Proposed CBM Aberfoyle South Lake Pit, prepared by WSP Canda Inc., dated October 31, 2025 ("Noise Comments");
4. Planning Report & Aggregate Resources Act Summary Statement, CBM Aggregates, a Division of St. Marys Cement Inc. (Canada), Proposed Aberfoyle South Pit Expansion, by MacNaughton Hermesen Britton Clarkson Planning Limited (MHBC), dated November 2023 ("Planning Summary Statement");
5. Responses to Township of Puslinch and County of Wellington Comments on Aberfoyle South Pit Application, prepared by MHBC Planning, Urban Design & Landscape Architecture, dated November 26, 2025 ("MHBC Response Comments"); and,

Vooren Air Quality Management Services Inc.  
17 Christman Court  
Markham, ON, L3P 3C7, Canada  
289-242-5086

[www.vaqms.com](http://www.vaqms.com)

Puslinch CBM Aberfoyle SL Pit - Air Quality Peer Review Feb 6 2026 Rev 1.docx

## VAQMS

6. Site Plans for Aberfoyle South Lake Pit, by MHBC Planning, Urban Design & Landscape Architecture, dated for application submission, November 2025 ("Site Plans").

The critical air quality aspects of the proposed pit are:

1. No material processing at the site. Processing, including screening and crushing, are often very significant sources of dust emissions requiring significant dust mitigation. No processing is proposed for the site.
2. 95% of the extraction is underwater. Excavating and handling of dry materials is often a major source of dust emissions. Given the wet nature of the materials being excavated at the proposed site, the dust emissions from handling the aggregate will be insignificant.
3. Limited equipment on site. The proposed operation includes two loaders and an excavator/backhoe. Up to 14 trucks per hour are anticipated at the site. The loading, moving and truck traffic can be a source of dust emissions. The major sources of dust that could occur from the equipment would be loading of dry materials and dust emissions from the on-site haul routes. The application proposes to control these specific dust emissions through the Dust BMPP.
4. Control of possible track out. The Site Plans show a 20 m paved entrance to the pit. The paved entrance will help minimize track out of mud and silt to the Concession 2 Road, but the paved section must also be maintained to avoid dust emissions from materials deposited on the paved entrance section.

No specific air quality study or assessment was completed for the application. Neither the Township of Puslinch or the County of Wellington have a specific requirement to provide an air quality study as part of an Aggregate Resources Act submission. Even without specific submission requirements, typically, an air quality study would be submitted, and the results of the air quality study would include the detailed Dust BMPP.

The only reference to air quality impacts is found in the Planning Summary Statement, indicating that *"subject to the implementation of the proposed mitigation measures regarding water quality, noise, dust and traffic, there are no anticipated impacts to the agricultural system"*. No further discussion is provided on potential air quality impacts to neighbouring residents. Though we find the lack of an air quality study unusual, our experience does let us conclude that with a properly executed Dust BMPP, the air quality impacts of the proposed operation should be minimal.

Our review of the application documents found the following:

1. The Dust BMPP is dated October 2023 and is based on the November 2023 Site Plans. Through discussions and comments, CBM updated their site plans (November 2025) to include a 20 m paved entrance to the site from Concession 2 Road. The Dust BMPP does not include the paved entrance as a source of fugitive dust emissions in Table 2 (page 5), Table 4 (page 7), Table 6 (page 8) or Appendix A (Risk Ranking). Table 3 (page 6) does mention mitigation for paved roadways, but the significance is not discussed nor are further details provided. The paved entrance will be subject to track-out of mud and silt from the site and if not well cleaned and maintained can become a major dust source. **The Dust BMPP must be updated to provide a**

**better discussion concerning paved roads and best practices mitigation for the on-site paved entrance road. The Dust BMPP update should also include appropriate tracking logs for mitigation activities on the paved entrance.**

2. Even with the inclusion of a paved entrance, track-out of silt and mud can still occur to Concession 2 Road. The current BMPP does not consider cleaning or managing potential track-out from the site. In the MHBC Response Comments (response to GM BluePlan Engineering, Comment 5), MHBC indicates, in response to road cleaning that *"Details related to the maintenance of Concession 2 would need to occur directly with the Township"*. The Township By-Law 2023-058, "A By-law To Regulate Road Activity", clearly requires the site operator to maintain any haul route (Clause 18 in the By-Law). The By-Law requires the applicant to obtain a Haul Route Permit to ensure the roads are maintained as required. **The Dust BMPP must be updated to include the required mitigation for Concession 2 Road, including at a minimum, the requirements stipulated by By-Law 2023-058.**
  
3. The proposed site operations will not be subject to Ministry of the Environment, Conservation and Parks ("MECP") permissions. With no major material processing on site, the proposed operations would not require any air quality permits from MECP. The Dust BMPP will therefore only be enforced through the Ministry of Natural Resources Aggregate licence. As is typical, the full details of the Dust BMPP are not included on the Site Plans. The Dust BMPP is referenced on Drawing 3 of 5, Site Plan Notes, L Report Recommendations, Item 7 as *"Dust: "Best Management Practices Plan for the Control of Fugitive Dust at Aberfoyle South Pit Expansion" October 2023 (Source: WSP) The purpose of this plan is to document the Best Management Practices for the control of fugitive dust emissions from activities taking place at the pit. The licensee shall follow these Best Management Practices including preventative procedures and reactive control measures e.g. sweeping and/or watering to reduce vehicle track-out at paved pit entrance, limiting on-site vehicle speeds, reduce material handling during high wind conditions, etc. An inspection of the conformity with the BMPs will be documented monthly and a watering log must be maintained to record dust control activity. The BMPP shall be reviewed periodically and updated if required."* (underline added for emphasis). We note the Site Plan notes have now included some proposed mitigation for the paved entrance, not included in the Dust BMPP, but offers no further details. The Site Plan note and the Dust BMPP (under "Version Control") allow for a periodic review and update of the Dust BMPP if required. In stating that the Dust BMPP can be revised, enforcement by MNR would require MNR to review and inspect against any future unapproved Dust BMPP. **We recommend that any periodic review and update to the Dust BMPP should require the new Dust BMPP to be filed with MNR (ideally as a Site Plan amendment) to ensure that the Site Plans and MNR enforcement follow the most recent Dust BMPP.**
  
4. The Dust BMPP (page 7) states *"Hours of operation will be restricted during any period in which a wind warning for the area has been issued by Environment and Climate Change Canada and during any time where weather, traffic and unusual events would compromise the ability of Site alteration activities to be conducted in a safe and environmentally sound manner with due consideration of the public."* While this is an appropriate action, there is no specific detail on

how this will be managed at the site. Environment Canada issues Yellow, Orange or Red Wind alerts. **The Dust BMPP must be updated to be specific with regards to actions that are to be taken at the site for each level of Environment Canada wind alert and indicate who takes on-site responsibility for the changes in on-site operations and activities.**

5. The Dust BMPP provides a procedure for monthly inspections and maintaining a log of when unpaved roads are watered (Section 4.3 page 8 and Appendix E). It is only in the monthly dust inspection form that the question is asked "*is visible dust observed from any section of roadway?*". A monthly observation of a dust plume from on-site traffic is totally inadequate. Watering the unpaved areas must occur when dust plumes are noticeable behind the trucks. It is important to apply water immediately to mitigate emissions. The frequency and extent of watering must be determined by visible plumes extending from the trucks and not done on an arbitrary watering schedule.

Watering for mitigation is listed in Table 3 (page 6) of the Dust BMPP but lacks necessary detail. The procedure indicates applying at least 1 litre/m<sup>2</sup> of water after 24 hours of dryness. No frequency is provided nor is "dryness" defined. **The Dust BMPP must be updated to include the use of visible dust plumes from haul traffic and operations as a trigger for mitigation. The procedure for using visible dust plumes and triggering mitigation must also be included in the responsibilities section (Section 3.0 page 3) and the training section (Section 4.2.1 page 8) of the Dust BMPP.**

6. The Dust BMPP does not address dust emission management for soil removal, placement during rehabilitation and surface stripping. Soils are very high silt content resulting in very high dust emission potential when dry; especially in hot, dry summer months. **The Dust BMPP should be updated incorporate an appropriate mitigation strategy to address soil handling.** The strategy would build on the recommendations for visible dust plume management stated in Comment 5 above or recommend limiting soil handling during wetter months.
7. No details are provided, in either the Dust BMPP or the Site Plans, if CMP intends to have a dedicated water truck on site. The watering log provided in Appendix D implies that a contractor will be used. **We recommend that given the immediate requirement of watering when dust plumes are noticeable on-site, CMP maintain an on-site watering truck and operator.**

Similar considerations for timing of mitigation will need to be developed for the paved entrance and Concession 2 Road. While it is not anticipated that CMP would maintain an appropriate sweeper at site, it is important that CMP commit to ensuring any contracted sweeping, for both the paved entrance and Concession 2 Road, be available on a quick response contract. **Further details on contracted sweeping response times and requirements should be included in the Dust BMPP.**

8. The Dust BMPP does not include any discussion on handling complaints. Moreover, the Dust BMPP is silent on providing publicly visible on-site contact information (e.g. phone number,

email address) should there be off-site dust impacts. It would be appropriate for the Dust BMPP to include appropriate methods for the public to lodge a complaint, should an issue arise at the site or off-site as a result of the operations. As well, the Dust BMPP should include a procedure for handling complaints, including appropriate documentation (i.e. complaint form), notifying the MECP Spills Action Centre, carrying out additional mitigation and developing a corrective action to avoid the source of the increased dust emissions in the future. **We recommend that the Dust BMPP and the Site Plan be updated to include an appropriate complaint response procedure.**

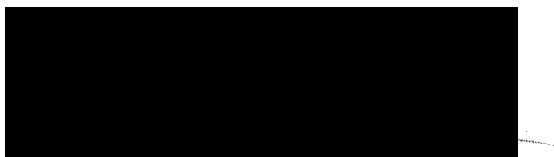
## Conclusions and Recommendations

The proposed Aberfoyle South Pit Expansion can be operated with minimal air quality impacts to the surrounding area if the operations at the site are well controlled to minimize dust emissions. A detailed Dust Best Management Practices Plan is required to ensure appropriate and timely mitigation of dust emissions. The current BMPP, which would be enforced through the Site Plans, is not sufficiently detailed nor does it include all potential dust emission sources.

Until an updated Dust BMPP is provided, it would be premature to conclude that the Aberfoyle South Pit will be operated to minimize air quality impacts.

Please contact us, if you have any further questions or require further clarification.

Yours truly,



Tony van der Vooren Ph.D., P.Eng.  
President  
Vooren Air Quality Management Services Inc.



**SALVINI**  
**CONSULTING**  
Transportation Engineering and Planning

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519-591-0426  
[julia@salviniconsulting.com](mailto:julia@salviniconsulting.com)

February 27, 2026

Monika Farncombe  
Planning and Corporate Services Coordinator  
Township of Puslinch  
7404 Wellington Road 34  
Puslinch, ON · N0B 2J0

**Re: 6947 Concession 2**  
**CBM Aggregates, a division of St. Marys Cement Inc. (Canada)**  
**Zoning By-law Amendment Application, 1<sup>st</sup> Technical Review**  
**Township Transportation Peer Review Comments**

Dear Monika,

I have reviewed the application for the Zoning By-law Amendment for the subject site and the Traffic Impact Study (TIS) that was submitted with the application. A previous version of the TIS was submitted in November 2023 and an updated version dated November 2025 has been received with this application prepared by TYLin. The following comments are provided as my first technical review of the application.

1. Base traffic data at the study area intersections has been updated with new data collected in June 2024 as requested and is acceptable.
2. Additional information about the pit operations in the context of the broader local operations was provided and is helpful for understanding the transportation context. In addition, the study confirms the pit will be fully operational 2029 subject to achieving the needed permits.
3. Additional information about staffing on the site and the contribution to peak hour traffic volumes was provided and updated in the study. The site traffic and future total traffic volumes are acceptable.
4. The left turn lane warrant assessment indicates that left turn lanes are not warranted either at the site driveway (westbound) or the McNally pit driveway (eastbound) on CR2. I accept the assessment.
5. The traffic operations assessment is also acceptable.
6. The sightline analysis is not complete. New driveway connections are required to provide left turn from stop intersection sight distance (ISD) in both directions in accordance with guidance in the TAC Geometric Design Guide for Canadian Roads. Diagrams illustrating how the required ISD sightlines are provided for the appropriate design vehicles need to be included both in plan and in profile. The design vehicles

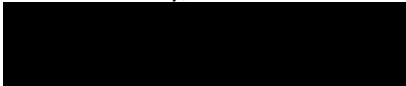
should include both a passenger car and the design truck – whatever the largest truck is that is regularly in use at the site. Separate diagrams will be required for the passenger car and the design truck because the required distance and the eye height are different for both. The consultant is welcome to reach out to me to discuss the sightline analysis in more detail if they would like further information.

7. I defer to my colleagues at GEI Consulting to provide more fulsome comments on the Preliminary Roadway and Structural Conditions Review portion of the updated TIS. I note that the study recommends signage restricting trucks from turning left out of the site driveway onto CR2 and also from continuing westbound on CR2 at the site driveway. There should also be signage placed at the SR20N intersection with CR prohibiting trucks from making either an eastbound right turn or a westbound left turn. It is also my opinion that the nature of the upgrades to the haul route and the structure need to be confirmed at this Zoning By-law Amendment stage of the planning applications and the geotechnical and structural investigations are needed at this stage to do that, despite what GEI had previously said. Off-site road improvements are required to be identified as part of the Zoning By-law amendment under the planning act.
8. In our previous comments, we suggested that daily traffic data will need to be collected to support the geotechnical investigation for the road and possibly the noise study as well. We were not referring to the peak period data collection the consultant had previously undertaken or the updated peak period intersection counts. For the geotechnical study, daily traffic data is needed and should be collected over no less than a week during a time when the aggregate industry in the area is operating at typical peak levels.

I am not yet prepared to support the application from a transportation perspective. An updated Traffic Impact Study is required to address the comments above.

Please let me know if you have any further questions about my preliminary review of the application.

Sincerely,

  
Julia Salvini, MEng, PEng, FITE  
President

Cc: Mike Fowler, Justine Brotherston, Township of Puslinch  
Rob Stovel, Stovel and Associates  
Andrea Reed, GEI Consultants



May 6, 2026

GEI Project No. 2402575 – 121006-036

VIA CLOUDPERMIT: Township of Puslinch  
Township Application No. D14-CBM

Monika Farncombe  
Township of Puslinch  
7404 Wellington Road 34  
Puslinch, ON NOB 2J0

**Re: ZBA – Additional Technical Review  
6947 Concession Road 2 (CBM Aberfoyle South Lake Pit)  
Puslinch, ON**

Dear Ms. Farncombe:

GEI Consultants Canada Ltd. (GEI) have reviewed a revised submission for a Zoning By-Law Amendment application in support of a proposed aggregate extraction site on the subject lands located at 6947 Concession Road 2 in the Township of Puslinch. The first formal zoning bylaw amendment application submission was received from the Township on December 10, 2025, and January 23, 2026. Updated submission materials were received on April 24, 2026. CBM Aggregates refers to the proposed operation as “Aberfoyle South Lake Pit” and has applied for a Class A Licence under the Aggregate Resources Act with the Ministry of Natural Resources.

It is our understanding that the overall property is 85 ha in size, the area to be licensed has been revised to 39.2 ha, and the extraction limit is 27.5 ha. We understand that aggregate extraction will begin above the water table in the west-central portion of the extraction area and proceed westward towards the western edge. Extraction by dragline will then begin below the water table in the westernmost part of the extraction area and proceed in an easterly direction. Above and below water table extraction will then generally proceed concurrently in an eastward direction until extraction is complete. Raw aggregate will reportedly be temporarily stockpiled onsite to allow pore water to drain back to the emerging pit pond, before transportation offsite for processing. Rehabilitation following the anticipated 6 to 10 year extraction period will result in a permanent pond with naturalized shoreline.

The subject lands currently have four accesses to Concession Road 2. The most recent submission indicates that the most easterly of these accesses would be used to access the site during the operational and rehabilitation period. This would be a (left turn in) entrance and right-turn-only exit for pit trucks. Trucks will travel east along Concession Road 2 to the existing Aberfoyle South Pit (a left turn from Concession Road 2) where processing would occur. We understand that trucks leaving the subject lands will not go to other processing plants or directly to market.

An initial meeting for the proposed pit was held on September 28, 2021, but no formal engineering comments were prepared at that time. The proponent subsequently updated their application, and a pre-consultation meeting was held on July 27, 2023, with comments provided in our review letter dated August 8, 2023. A resubmission was received on November 30, 2023, with comments provided in our review letter dated February 6, 2024.

## **1. Documents Received**

All plans and studies required from an engineering perspective to support the zoning bylaw amendment application have been submitted.

The following documents were received and reviewed by GEI as part of the May 2026 submission:

- Site Plans, revised to address GRCA comments, prepared by MHBC, dated March 2026.
- Site Plans, revised to address Agency comments, prepared by MHBC, dated April 2026.

The following documents were received and reviewed by GEI as part of the previous submission:

- Response to Township and County Comments (Cover Letter), prepared by MHBC, dated December 4, 2025.
- Responses to Comments on Site Plan, prepared by MHBC, dated November 26, 2025.
- Response to Transportation Comments and revised Transportation Impact Study, prepared by TYLin, dated February 5, 2025.
- Responses to GM Blue Plan Review, prepared by WSP, dated October 22, 2025.
- Maximum Predicted Water Table Report, prepared by WSP, dated November 2023.
- BMPP for the Control of Fugitive Dust, prepared by WSP, dated October 2023.
- Water Report Level 1/2, prepared by WSP, dated November 2023.
- Natural Environment and Water Report Terms of Reference Concordance Cross-Check, prepared by WSP, dated January 27, 2025.
- Flood Mapping, prepared by WSP, dated August 12, 2025.
- Supplemental Assessment of Potential Impacts to Baseflow in Mill Creek and Tributary 3, prepared by WSP, dated October 21, 2025.
- Supplemental Assessment of Potential Impacts to Provincially Significant Wetlands, prepared by WSP, dated October 21, 2025.
- Supplemental Assessment and Mitigation of Post-Rehabilitation Groundwater Uplift, prepared by WSP, dated October 21, 2025.
- Headwater Drainage Feature Assessment, prepared by WSP, dated October 22, 2025.

The following documents were received as part of the previous submission and were reviewed by Township staff and other consultants:

- Land Transfer of Ownership Receipt, dated March 15, 2018.
- Stage 1 and 2 Archaeological Assessment, prepared by WSP, dated August 28, 2023.
- Stage 3 Archaeological Assessment, prepared by WSP (Location 3), dated June 1, 2023.
- Stage 3 Archaeological Assessment, prepared by WSP (Location 5), dated June 1, 2023.
- Agricultural Considerations Review, prepared by MHBC, dated September 8, 2023.
- Natural Environment Report, prepared by WSP, dated November 2023.
- Noise Impact Assessment, prepared by WSP, dated November 2023.
- Planning Report and ARA Summary Statement, prepared by MHBC, dated November 2023.
- Review and Entry into the Ontario Public Register of Archaeological Reports, prepared by Ministry of Citizenship and Multiculturalism, dated November 10, 2023.
- Application to Amend the County Official Plan, dated November 20, 2023.
- Public Consultation Strategy, dated November 20, 2023.
- Drinking Source Water Protection Form, dated November 20, 2023.
- Planning Act Applications Letter, dated November 29, 2023.
- Aggregate Resource Evaluation, prepared by WSP, dated November 2023.
- Hydrological and Ecological Monitoring Plan, prepared by WSP, dated October 21, 2025.
- Responses to Aboud and Associates Inc., prepared by WSP, dated October 22, 2025.
- Responses to GRCA, prepared by WSP, dated October 22, 2025.
- Responses to Harden, prepared by WSP, dated October 22, 2025.
- Responses to Stovel and Associates Inc., prepared by WSP, dated October 22, 2025.
- Responses to Wellington Source Water Protection, prepared by WSP, dated October 22, 2025.
- Response to Valcoustics Canada Ltd., prepared by WSP, dated October 31, 2025.

## 2. Additional Documents Required

All plans and studies required from an engineering perspective to support the zoning bylaw amendment application have been submitted and additional documents are not required at this time. We are in support of this application being deemed complete.

## 3. Technical Comments

No.	Matter	Document	Comment
1.	Existing Condition of Concession Road 2 and Culverts	Transportation Impact Study	<u>GEI Comment - March 2026</u> We have been advised that it is not possible to defer the geotechnical and structural investigations of Concession Road 2 and Bridge Structure 2012 to detailed design as a condition of approval. The nature of required off-site road

No.	Matter	Document	Comment
			<p>improvements are required to be identified at the zoning bylaw amendment stage.</p> <p>As such, we ask that to support the zoning bylaw amendment application, a geotechnical investigation of Concession Road 2, from the Aberfoyle South Pit West Access west to the proposed Aberfoyle South Lake Pit access, be completed to determine existing pavement and base structure and condition, and recommendations for required upgrades to the road in order for it to be considered the proposed haul route. Concession Road 2 is considered to be a truck route between Sideroad 25S and Sideroad 20S but is not a truck route west of Sideroad 20S. However, it would be beneficial to investigate the entire haul route and provide necessary upgrade recommendations. This can then facilitate further discussion with the Township.</p> <p>Similarly, we ask that structural testing/inspection of the culvert over Mill Creek, located approximately 120 east of the site on Concession Road 2 (Bridge Structure 2012), be completed to confirm if it is suitable for the anticipated loads as is, or what upgrades would be necessary to have it meet the future required level of service. A comprehensive structural investigation including soil bearing capacity testing, concrete and rebar testing, and bridge deck inspection, is required. Again, the conclusions and recommendations of the structural investigation would facilitate further discussion with the Township about next steps.</p> <p><u>GEI Comment - May 2026</u>            Note 5 of the Operational Notes on the updated Site Plans states that prior to pit operations geotechnical investigations of Concession 2 and the Mill Creek culvert shall be undertaken. This work must be completed prior to approval of the zoning bylaw amendment.</p>
2.	Sightline Analysis	Transportation Impact Study	<p><u>GEI Comment – March 2026</u>            A topographical survey of the Concession Road 2 centreline in several hundred metres each direction (distance to be determined by the analysis) is required to be completed for each entrance/exit to support the sightline analysis.</p> <p><u>GEI Comment -May 2026</u>            Comment still applies.</p>
5.	Oversize Loads	-	<p><u>GEI Comment – March 2026</u>            Please provide a written procedure outlining how proper weighing of trucks will be implemented using a calibrated scale, to prevent oversize loads of raw aggregate being hauled to the Aberfoyle South Pit, potentially putting the</p>

No.	Matter	Document	Comment
			<p>Township Road and culvert structure at risk of accelerated degradation over the long-term.</p> <p><u>GEI Comment -May 2026</u>            Comment still applies.</p>
6.	Grading Plans	Site Drawings	<p><u>GEI Comment – March 2026</u>            Please provide preliminary operational grading plans for each phase of the planned extraction. Currently detailed grading is only provided on the rehabilitation plan, and while we acknowledge that the rehabilitation plan is progressive, it is difficult to review the impacts of the perimeter grading and berms as they are constructed over the operational period.</p> <p><u>GEI Comment -May 2026</u>            Comment still applies.</p>
7.	Flood Potential	Flood Mapping Memo	<p><u>GEI Comment – March 2026</u>            The Flood Mapping memo concludes that to minimize the potential for flooding, the ground surface around the perimeter of the Site will be graded to a design elevation (up to 304.6m per the Memo), and berms will be installed to ensure flood waters do not move to lower lying areas outside of the extraction area or onto adjacent lands. Flood waters will be permitted to enter the pit at the northeast corner of the site. As noted above, preliminary grading plans for each operational phase should be provided. Based on these plans, please provide additional flood mapping showing how far the floodplain will extend, for each storm event, including the regional storm, during existing conditions, during each phase of operations, and after full rehabilitation, based on proposed grading. The impacts of the flooding on the Site and neighbouring properties during the 6-10 operational period and post-rehabilitation need to be better understood. Do the HEC-RAS cross-sections for Tributary 3 or Mill Creek need to be updated due to alterations to the floodplain?</p> <p>The tables in the Flood Mapping memo provide water surface elevations for a regional storm, but a flood elevation map has not been provided for the regional storm. Please provide this for the next submission. It appears that a regional storm in 1982 has been modelled – please provide details. Is there a reason that Hurricane Hazel was not used?</p> <p><u>GEI Comment -May 2026</u>            Comment still applies.</p>
8.	Proposed Tile Drain	Post-Rehabilitation	<p><u>GEI Comment – March 2026</u>            The potential flooding of private lands is proposed to be mitigated through the installation of a 350 m long, 200-</p>

No.	Matter	Document	Comment
		Groundwater Uplift Memo	<p>300 mm diameter, subsurface drain at an invert elevation of approximately 301.25 m, located in the 30 m setback area, and designed to capture excess groundwater water during high water table periods post-rehabilitation, and divert it northward to Tributary 3. It is estimated that a total of 212 m<sup>3</sup>/day would be diverted post-rehabilitation through the drain into Tributary 3. We recommend that the drain be added to the groundwater model to better demonstrate the long-term impacts on groundwater and surface water on the Site and neighbouring properties. Per the Township Hydrogeologist, confirmatory monitoring is recommended to validate numerical model results and document impacts.</p> <p>Please show the maintenance setback for the tile drain, taking into account the depth of the drain and a suitable cut ratio based on soil type. Please discuss long-term operation and maintenance of the drain beyond pit operations. Who will be responsible for monitoring, inspection and repairs in the long term? There is concern that because the drain is located in the 30 m setback area, any failure of the drain requiring replacement would result in significant impacts to vegetation and potentially adjacent wetland.</p> <p>The toe of the tile drain will terminate at Tributary 3 on a rip-rap outfall apron. Please show the rip-rap apron on the Site Drawings and demonstrate that it is sized and designed adequately to prevent erosion. Please assess the impacts of increased flows to Tributary 3 downstream of the drain inlet, including on culvert sizes downstream on neighbouring properties.</p> <p><u>GEI Comment -May 2026</u>            Comment still applies. In particular, additional information about the outlet of the tile drain to Tributary 3 is required. Note D.2. states that excess groundwater reports to the Tributary as additional baseflow. Please provide an invert elevation for the tile drain outlet and show grade elevations in this area.</p>
9.	Submission Format	Various Memos and Reports	<p><u>GEI Comment – March 2026</u>            For future submissions, it would be helpful to reviewers if the various technical memos provided with this submission were incorporated into a cohesive report.</p> <p><u>GEI Comment -May 2026</u>            Comment still applies.</p>

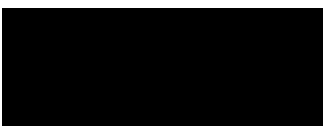
#### 4. Completed/Approved Comments

No.	Matter	Document	Comment
3.	Road Signage	Site Drawings	<p><u>GEI Comment – March 2026</u> Per the TIS and Township’s Traffic Consultant, signage is required to restrict trucks from turning left out of the site driveway onto Concession Road 2 and also from continuing westbound on Concession Road 2 beyond the site access. There should also be signage placed at the Sideroad 20S and Sideroad 25S intersections with Concession Road 2, prohibiting trucks from making either an eastbound right turn or a westbound left turn. Please note/show signage on the Operational Site Plan.</p> <p><u>GEI Comment – May 2026</u> Note 5.b. on the revised Cross Sections Plan addresses this comment.</p>
4.	Rumble Bars	Site Drawings	<p><u>GEI Comment – March 2026</u> The TIS recommends rumble bars be installed at the pit’s operational exit to slow down trucks merging onto Concession Road 2. These will also mitigate mud and debris tracking onto Concession Road 2. Please show on the Operational Site Plan.</p> <p><u>GEI Comment – May 2026</u> Note 5.c. on the revised Cross Sections Plan addresses this comment.</p>

If you have any questions or require additional information, please do not hesitate to contact us.

Sincerely,

GEI Consultants Canada Ltd.



Andrea Reed, P.Eng.  
Senior Project Engineer

May 11, 2026  
Project No. 2402577– 121006-036

Via Email: [mfarncombe@puslinch.ca](mailto:mfarncombe@puslinch.ca)

Township of Puslinch  
7404 Wellington Road 34  
Puslinch, ON N0B 2J0

Attention: Monika Farncombe

**Re: Aggregate Resource Viability Review  
Proposed Below Water Class A Aggregate Pit  
CBM Aberfoyle South Pit - 6947 Concession Road 2  
Puslinch, ON**

Dear Ms. Farncombe:

This letter report is being prepared as part of GEI Consultants Canada Ltd. (GEI) continued review of documents in support of a Zoning By-Law Amendment application for a proposed aggregate extraction site located at 6947 Concession Road 2 in the Township of Puslinch. CBM Aggregates refers to the proposed operation as “Aberfoyle South Lake Pit” and has applied for a Below Water Class A License under the Aggregate Resources Act with the Ministry of Natural Resources.

It is our understanding that the overall property is 85 ha in size, the area to be licensed is 44 ha, and the extraction limit is 27 ha. We understand that aggregate extraction will begin above the water table in the west-central portion of the extraction area and proceed westward towards the western edge. Extraction by dragline will then begin below the water table in the westernmost part of the extraction area and proceed in an easterly direction. Above and below water table extraction will then generally proceed concurrently in an eastward direction until extraction is complete. Raw aggregate will reportedly be temporarily stockpiled onsite to allow pore water to drain back to the emerging pit pond, before transportation offsite for processing. Rehabilitation following the anticipated 6 to 10 year extraction period will result in a permanent pond with naturalized shoreline.

As part of the application, the report entitled *Aggregate Resource Evaluation Aberfoyle South Pit Expansion*, completed by WSP Canada Inc. and dated November 2023 has been provided. This letter report provides a summary of our review of this report and comments pertaining to the Pit viability.

### **Aggregate Viability Considerations**

A key component of aggregate pit viability is related to the amount of effort required to obtain desirable/usable aggregate. Two common factors affecting the effort required to obtain material are:

- 1) nature of occurrence of desirable material (i.e, is the unit thickness sufficient to economically extract and/or can it be separated from layers that are not desirable), and
- 2) the percentage of fines.

The amount of fines found in a resource is a critical factor since silt and clay (grain sizes less than 0.075 mm) are not desirable for aggregate nor concrete above very low amounts. To remove silt and clay, washing is typically completed via a wash plant, which separates the sand and gravel from the silt and clay content. Washing is relatively energy intensive and will “waste” a portion of the material. The amount of wasted material is directly related to the silt and clay content. For example, if the material is 30% fines, at least 30% of the material will not be viable for use and will require management.

Another issue with the viability of extraction operations relates to the uniformity of desirable aggregate. Where layers of desirable deposits are inter-layered with fine-grained deposits, the excavation can be encumbered due to the excavation and handling of differing beds/layers to prevent fines “contamination” of the desirable aggregate material. This can be exacerbated below the water table where the soil column can be mixed during excavation due to slumping.

The increasing fines content can significantly influence viability. While many desirable resources have less than 10 percent fines, when used for concrete manufacturing a slightly higher percentage of fines is generally manageable since the materials are often washed to obtain desirable grain-sizes. However, the more fines, the greater the difficulty for washing and the lower the viability.

For the purposes of this review and based on our experience, the occurrence of materials based on borehole logs and associated grain-size analyses have been reviewed. While it is recognized there is no exact, or recognized values for fines contents that determine viability, we have used a simple and relative scale to assess potential viability. It is recognized that these are arbitrary values, but nonetheless, they are useful in evaluating areas where viability may reasonably be expected, or in the contrary, unexpected. In particular, we have noted the following samples:

<b>Grain-Size Analyses % Sit and Clay (Fines)</b>	<b>Demarcation</b>	<b>Relative Viability</b>
Less than 8%	Not Flagged	Viable
8% to 15%	Not Flagged	Likely Viable with screening/washing
15% to 20%	Yellow	Viability with increased washing/handling effort
20% to 40%	Orange	Questionable Viability
Greater than 40%	Red	Not Viable

**Review Comments**

Upon review of the information provided, the aggregate viability of the proposed extraction area is not clear to us. It is noted that the volume of viable material for the pit was estimated by taking the entire extraction area of 27 hectares and multiplying it by a depth of 12.5 m (41 feet).

In particular, it is noted that within the Phase 2 area, there appears to be no samples with fines below 15% or a description of significant beds of material that would indicate viability (such as sand and/or gravel dominated) with the exception of about 0 to 3 m at BH18-06. In contrast, a large thickness of silty and and/or clayey soils are described consistently across this area.

A summary of the Phase 2 information is provided below:

Borhole Location	Depth Range of Sample (ft)	Sample Description	Approximate Fines (Silt and Clay) %
BH18-04	0 to 4	Silty Sand	-
	4 to 9	Sand	-
	9 to 14	Clayey Sand	49.9
	14 to 19	Clayey Sand	-
	19 to 24	Silty Sand	-
	24 to 29	Silty Sand	62.9
	29 to 34	Sand and Silt	-
	34 to 39	Sand and Silt	-
	39 to 44	Sand and Silt	-
44 to 49	Sand and Silt	69.3	
BH18-05	0 to 4	Silty Sand	-
	4 to 9	Silty Sand	39.8
	9 to 14	Sand	18.7
	14 to 19	Silty Sand	18.1
	19 to 24	Sand and Silt	26.4
	24 to 29	Silty Sand	-
	29 to 34	Silty Sand	21.6
	34 to 39	Clayey Silt	-
	39 to 44	Clayey Silt	-
44 to 49	Sand and Silt	26.0	
BH18-06	0 to 4	Sand and Gravel	8.9
	4 to 9	Sand and Gravel	9.7
	9 to 14	Sand and Gravel	15.4
	14 to 19	Sand	21.4
	19 to 24	Sand	55.2
	24 to 29	Silt	56.0
	29 to 34	Silt and Sand	51.7
	34 to 39	Silt and Sand	56.8
	39 to 44	Silt and Sand	33.6
44 to 49	Silt and Sand	-	

Based on this information, it is our opinion that the viability of Phase 2 of the extraction area is not proven. It is not clear why extraction of silt and clay dominated soils are proposed for extraction, shipping and washing.

The Phase 3 excavation area includes boreholes BH18-07, BH18-08, and BH18-09, which are distributed evenly across the area. Of the 30 stratigraphic intervals logged across these boreholes, only one sample was collected for grain size analysis. Based on the level of fines and layers with relatively high level of fines in other areas of the proposed extraction area, we recommend that grain-size samples from the differing units be obtained to confirm viability in this area.

Lastly, where layers of fines-dominated beds occur within the soil profile, we recommend that the rationale and approach be provided with respect to how fines contamination will be avoided, or to what level such “mixing” can occur without affecting viability.

In summary, we recommend that the proponent provide additional information and rationale with respect to the viability of the Phase 2, Phase 3 extraction areas and overall operations as follows:

- Phase 2 Area – how the extraction of silt and clay dominated soils will be viable, and
- Phase 3 Area – provision of grain-size analyses from the primary units (both coarse and fine-grained), and
- Overall Pit Operations - Evaluation of the potential for fines contamination and it will be avoided or to what level such “mixing” can occur without affecting viability.

We trust this is sufficient for your use at this time. If you have any questions, please feel free to contact me.

Sincerely,

**GEI CONSULTANTS CANADA LTD.**

Per:



Matthew Nelson, P.Eng., P.Geo.  
MN/mr

cc: GEI Consultants: Andrea Reed – [areed@geiconsultants.com](mailto:areed@geiconsultants.com)  
File No. 2402577



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#### URBAN FORESTRY

ARBORIST REPORTS  
MANAGEMENT PLANS  
TREE PRESERVATION PLANS  
TREE RISK ASSESSMENT  
GIS TREE INVENTORIES  
TREE APPRAISALS  
MONITORING

#### ECOLOGICAL RESTORATION

NATURAL SYSTEMS DESIGN  
HABITAT RESTORATION  
EDGE MANAGEMENT PLANS  
RAVINE STEWARDSHIP PLANS  
NATURALIZATION PLANS  
INTERPRETIVE DESIGN  
MONITORING  
CONTRACT ADMINISTRATION

#### ENVIRONMENTAL STUDIES

SUBWATERSHED STUDIES  
ENVIRONMENTAL IMPACT  
STATEMENTS  
ECOLOGICAL LAND  
CLASSIFICATION  
WETLAND EVALUATION  
VEGETATION ASSESSMENT  
BOTANICAL INVENTORIES  
WILDLIFE SURVEYS  
MONITORING

#### LANDSCAPE ARCHITECTURE

MASTER PLANNING  
RESIDENTIAL COMMUNITIES  
COMMERCIAL/INDUSTRIAL  
HEALTHCARE AND EDUCATION  
STREETSCAPES  
PARKS AND OPEN SPACES  
TRAIL SYSTEMS  
GREEN ROOFS  
CONTRACT ADMINISTRATION

#### EXPERT OPINION

OLT TESTIMONY  
LEGAL PROCEEDINGS  
PEER REVIEW  
RESEARCH  
EDUCATION

March 16, 2026

Our Project #: AA21-049A-004D

Sent by email: [planning@puslinch.ca](mailto:planning@puslinch.ca)  
[mfarncombe@puslinch.ca](mailto:mfarncombe@puslinch.ca)

Monika Farncombe  
Township of Puslinch  
7404 Wellington Rd. 34  
Puslinch, ON N0B 2J0

**Re: Responses to About & Associates Inc. / Township of Puslinch  
Review Comments - Proposed CBM Aberfoyle South Lake Pit  
(Prepared by: WSP Canada Inc., October 22, 2025)  
Peer Review – Ecology OPA submission documents**

Dear Ms. Farncombe:

About & Associates Inc. (AA) has been retained by the Township of Puslinch to complete a Peer Review of the Natural Environment Report (NER) and the Site Plans for the proposed Aberfoyle South Pit Expansion, Puslinch, ON. WSP Canada Inc. has issued a Technical Memorandum and several supplemental attachments in response to the Technical Peer Review completed by AA, dated February 8, 2024. This letter provides a review of the additional information submitted, including the following:

- Responses to About & Associates Inc. / Township of Puslinch Review Comments - Proposed CBM Aberfoyle South Lake Pit
- Attachment 1:
  - o Table 2 (Weather Conditions and Staff Qualifications)
  - o Table 3 (Amphibian Call Count Data)
  - o Table 4 (Breeding Bird Survey Breeding Evidence)
- Attachment 2: Fish Community Survey
- Attachment 3: HDF Assessment
- Attachment 4: MECP Correspondence
- Attachment 5: Natural Environment and Water Report Terms of Reference Concordance Cross-Check
- Attachment 6: Updated Figure 2
- Attachment 7: Supplemental Assessment of Potential Impacts to Provincially Significant Wetlands

Based on our review of the provided information, AA provides the following comments and attached checklist (*Appendix A*). A detailed Comment Response Matrix is also included (*Appendix B*), and provides itemized responses to each outstanding comment related to the natural environment components of the Aberfoyle South Lake Pit application.

## **Methodology**

The Peer Review was completed based on company experience and knowledge, standards for Environmental Impact Assessments in Wellington County and the GRCA, and the requirements of provincial and municipal policy documents. The review also cross-references the work completed with the accepted Terms of Reference, AA's comments on the Terms of Reference (dated October 26, 2021), and AA's comments on the Pre-Consultation Request (dated August 17, 2023) to ensure all requirements of the ToR have been met.

Our review has been broken down by outstanding comments pertaining to the NER and supplemental attachments provided in the Technical Memorandum. The following sections provides a brief summary of any primary concerns or comments for each document.

## **Natural Environment Report**

AA acknowledges receipt of the supplemental information provided in the form of a comment response matrix and supporting attachments. Based on our review, the additional information provided addresses several of AA's original comments and has improved the clarity of the assessment. However, a significant number of comments are outstanding or require further clarification.

## **Study Area**

The study area for the Natural Environment Report was defined as the proposed excavation limits and the area within 120 m of these limits. However, the groundwater modelling indicates that predicted changes to groundwater conditions will extend beyond 120 m from the excavation area. At present, the Natural Environment Report relies primarily on field data collected within the 120 m study area to inform the impact assessment and does not fully evaluate the potential for effects beyond this boundary.

In addition, field investigations appear to have been largely limited to lands owned by the proponent. In areas where private property restricted access, observations were made from roadside locations or from areas where access was permitted. While this approach is understandable from an access perspective, it introduces the potential that sensitive habitats or vegetation communities beyond the accessible areas may not have been fully documented, which may reduce the overall confidence in the impact assessment.

Given that the groundwater modelling predicts potential changes extending beyond the defined study area, it is recommended that the impact assessment be revisited to consider the broader area of predicted groundwater influence. Expanding the evaluation in this manner would help ensure that any potential effects to natural heritage features beyond the 120 m boundary are appropriately identified and assessed.

### ***Groundwater***

The primary outstanding concern relates to the assessment of potential impacts to Mill Creek, the surrounding Provincially Significant Wetland (PSW), and associated wildlife habitat. The portion of Mill Creek within the study area is located along the eastern boundary, where groundwater modelling predicts a reduction in groundwater elevation. However, Mill Creek flows westward through an area where the modelling indicates an increase in groundwater elevation. At present, it appears that the evaluation of impacts for Mill Creek reflect only the groundwater conditions on the eastern portion, rather than the full range of predicted changes.

Given the spatial variability in projected groundwater conditions across the site and surrounding landscape, AA recommends that the impact assessment be revisited to address these differing groundwater influence zones. This review should consider whether the potential effects to Mill Creek, the PSW, and associated habitats may differ between areas of predicted groundwater decrease and increase. Where sections of Mill Creek or associated features fall outside the areas previously surveyed or where information is limited, supplemental field observations should be undertaken to ensure that baseline conditions are adequately characterized in all areas and that the assessment appropriately reflects the full spatial extent of potential groundwater-related effects. Further, the proposed ecological monitoring plan should account for these variations and include monitoring locations within both decreased and increased groundwater influence zones for fisheries, amphibian, and wetland receptors.

### ***Tile Drain implementation***

The third matter relates to the proposed tile drain along the western boundary, discharging into Tributary #3. This design is anticipated to increase baseflow contributions beyond existing conditions. Confirmation is required that the downstream receiving watercourse has been evaluated to ensure it can accommodate the projected increase in flow without resulting in channel instability, excessive erosion, or downstream impacts. In addition, a private driveway crossing is located downstream within Tributary #3. Clarification should be provided to confirm that this structure has been assessed for hydraulic capacity under the proposed flow regime and to determine whether upgrades to the culvert may be required.

Further to the above, AA has concerns regarding the proposed location of the tile drain within the 30 m buffer setback from the PSW. While the current land use within this area is agricultural and installation of a tile drain under existing conditions is unlikely to result in direct impacts to the PSW, the tile drain represents long-term infrastructure that will require periodic maintenance, repair, and eventual replacement. As currently proposed, the tile drain is shown to be buried within the buffer and beneath a berm. A detailed plan should be prepared outlining the extent of excavation required for the installation of this structure to evaluate the potential for adjacent impacts and demonstrate that it can be installed without encroaching the dripline and wetland limit. Future access for repair or replacement would require excavation and disturbance within what is intended to function as a restored natural heritage buffer. Over time, this buffer area is intended to naturalize and become part of the PSW's ecological protection zone. Locating permanent infrastructure within this setback is therefore not appropriate from a long-term natural heritage planning perspective. Consideration should be given to relocating the tile drain outside of the buffer to avoid future potential impacts.

AA acknowledges that a Letter of Advice (LOA) has been issued by Fisheries and Oceans Canada (DFO). However, clarification is requested to confirm that the tile drain design and anticipated baseflow changes to Tributary #3 were included as part of the submission reviewed by DFO, as these elements were introduced later in the review process. Further discussion regarding fisheries is provided below as part of the Attachment 2: Fish Community Survey review.

### ***Cumulative Impacts***

Since the original submission of the Natural Environment Report, several additional technical studies and assessments have been completed and circulated as part of the review process. While these documents address previous data gaps and provide important information regarding anticipated impacts, it is currently unclear whether the anticipated effects identified across these studies have been evaluated collectively from a broader, cumulative perspective.

Given the interrelated nature of the potential impacts to hydrology, groundwater, surface water features, wetlands, and associated ecological receptors, AA recommends that a cumulative impact assessment be undertaken. This assessment should summarize the findings of the various supporting technical studies and clearly demonstrate how the predicted changes interact spatially and functionally across the site and surrounding natural heritage features.

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AA further recommends that a revised Natural Environment Report be prepared and resubmitted with the incorporated additional technical information that demonstrates how the combined effects have been considered within the overall impact assessment.

Subject to the above outstanding concerns, the supplemental information has largely advanced the assessment and resolved many of the initial technical concerns identified during the first round of review.

**Attachment 1: Table 2 (Weather Conditions and Staff Qualifications)**

AA does not have any major concerns relating to this supplemental document, which has supported the resolution of previous comments.

**Attachment 1: Table 3 (Amphibian Call Count Data)**

There are several assumptions made in the analysis of data that are not technically correct per the SWH criteria. While ‘wetland’ amphibian breeding habitat is typically >120m from a woodland, this is not a requirement for candidacy, and several of the amphibian stations could be considered both woodland and wetland candidate habitat and should be assessed under both types. For example, the assessment for station 3 notes that the wetland must be >120m from a woodland to be considered candidate ‘wetland’ amphibian breeding SWH, however, this distance is not a requirement for candidacy. In addition, several surveys note that the habitat did not meet the abundance threshold, however, in past communication with MNR staff, they have noted that it is a cumulative total of individuals of all species, not an individual total per species.

Given the assessment for Significant Wildlife Habitat (SWH) and impact assessment in the NER was based on several incorrect assumptions, these conclusions should be reviewed and updated, where appropriate.

**Attachment 1: Table 4 (Breeding Bird Survey Breeding Evidence)**

AA does not have any major concerns relating to this supplemental document, which has supported the resolution of previous comments.

**Attachment 2: Fish Community Survey**

The methodology of the fish community survey appears to be appropriate. However, the conclusion that salmonids are absent from Tributaries #2, #3, and #5 appears to be largely based on the survey results. To confirm that this conclusion is appropriate, clarification is required regarding the specific location and length of reaches sampled, as well as the level of sampling effort expended (e.g., catch per unit effort) in each reach. Justification should be provided to demonstrate that the level of sampling effort was sufficient to reasonably conclude the absence of these species. Additionally, it may

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not be appropriate to conclude the absence of salmonids from these tributaries based on only one sampling event, particularly considering the connectivity of the watercourses and migratory nature of salmonids to access spawning habitats.

Additional clarification is required regarding the rationale for excluding sampling within Mill Creek. The proponent indicates that sufficient background fish community information is available, including documented occurrences of Brook Trout (*Salvelinus fontinalis*). However, Brook Trout appear to have been excluded from the impact assessment on the basis that Brown Trout are the dominant salmonid species and that Brook Trout may be restricted to smaller coldwater tributaries. In the absence of recent, site-specific fish community sampling conducted within Mill Creek, this conclusion is not sufficiently supported. Furthermore, available ARA survey point data document the presence of Brook Trout within Mill Creek upstream of the site.

While the potential for impacts to the Mill Creek fishery has been determined to be low, insufficient information has been presented to justify excluding Brook Trout from consideration within the Mill Creek fish community. It is noted that the fish habitat assessment lacks observations for the majority of Mill Creek within the area of predicted groundwater changes. Therefore, supplemental fish habitat assessments and salmonid spawning surveys should be performed within the entire length of Mill Creek and tributaries in order to confidently rule out impacts.

Additionally, it is recommended that Brook Trout be used as the baseline species for impacts to ensure the most sensitive species has been considered, including during the development of the ecological monitoring plan. This should include implementation of salmonid redd spawning surveys, to verify continued use of the system and to detect any changes in reproductive activity over time. Where appropriate, clearly defined monitoring thresholds and adaptive management triggers should be established based on Brook Trout life history requirements, including thermal tolerances and spawning habitat needs.

### **Attachment 3: HDF Assessment**

The field methodology applied in the Headwater Drainage Feature (HDF) Assessment is considered appropriate and consistent with the *Ontario Stream Assessment Protocol (OSAP), Section 4 Module 11 – Unconstrained Headwater Sampling* and the *CVC/TRCA Evaluation, Classification, and Management of Headwater Drainage Features Guideline*. However, AA does not agree with several aspects of the feature classification and the resulting management recommendations.

In particular, several components of the classification appear to be under-represented, resulting in lower overall feature rankings than would be anticipated based on the documented field observations. Evidence of standing water during late summer survey conditions, amphibian breeding activity, and the presence of wetland or scrubland riparian communities collectively suggest a stronger hydrological and ecological function than reflected in the final classifications. These observations indicate that certain features function, at least in part, as groundwater discharge (upwelling) areas and provide demonstrated habitat value.

While AA recognizes that the aforementioned guidelines allow for the application of modifiers and professional discretion to account for adjacent agricultural land use activities, the extent to which modifiers have been applied appears excessive and not well justified, resulting in a substantial downgrading of feature classification and management recommendations. In several instances, the rationale for modifiers does not appear fully supported by aerial imagery or field context, particularly where features retain intact riparian vegetation and are not actively cropped through. The cumulative application of modifiers in this case has the effect of minimizing the ecological and hydrological importance of these features.

Additional justification is required in order to accept the conclusion that these features do not warrant formal protection designation within the context of the proposed extraction limit. Given the apparent groundwater discharge function of certain HDFs and their demonstrated contribution to downstream flows, the recommended management approach of “Maintain Recharge” is not considered sufficient in the case of HDF-1 and HDF-2. This recommendation is typically applicable to features functioning primarily in infiltration; it does not adequately address features that contribute baseflow through groundwater upwelling. The assessment should include further discussion regarding how the proposed removal of these HDFs may influence downstream hydrology, including potential changes to baseflow contributions to the receiving tributaries and ultimately Mill Creek. It is currently unclear whether the modelled changes in baseflow incorporate the potential loss of these HDF functions, or whether these effects would need to be incorporated as part of the broader cumulative impact assessment discussed above.

Additional justification should be provided to demonstrate how the hydrological function, flow contribution, and associated habitat values of these features will be maintained during and following extraction.

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**Attachment 4: MECP Correspondence**

AA does not have any major concerns relating to this supplemental document, which has supported the resolution of previous comments.

**Attachment 5: Natural Environment and Water Report Terms of Reference  
Concordance Cross-Check – Proposed CBM Aberfoyle South Lake Pit**

AA does not have any major concerns relating to this supplemental document, which has supported the resolution of previous comments.

Confirmation should be provided from the proponent that all reviewing parties of the Terms of Reference (TOR) have provided acceptance. This was requested in Comment #50 and remains outstanding.

**Attachment 6: Updated Figure 2**

AA does not have any major concerns relating to this supplemental document, which has supported the resolution of previous comments.

**Attachment 7: Supplemental Assessment of Potential Impacts to Provincially  
Significant Wetlands – Proposed CBM Aberfoyle South Lake Pit**

The supplemental wetland assessment appears to be largely qualitative in nature and introduces a significant degree of uncertainty regarding the magnitude of potential impacts to the PSW complex. The assessment identifies several zones that are expected to experience hydrologic changes; however, the discussion appears to understate the potential for these changes to result in negative ecological impacts.

The presentation of plant community data is also insufficient to support independent review. Species composition and community structure are not clearly organized or linked to specific wetland communities, making it difficult to determine which species are present within each community type. As a result, it is challenging from a peer-review perspective to independently evaluate the potential ecological impacts or verify the conclusions presented in the assessment.

The wetland assessment further suggests that a reduction in overall water surplus may result in decreased drainage to downstream watercourses. It is unclear whether these potential reductions in wetland outflow have been considered within the broader fisheries and hydrologic impact assessments. Clarification is required regarding whether these changes have been incorporated into the modelling of downstream baseflow conditions and these effects would need to be incorporated as part of the broader cumulative impact assessment discussed above.

Additionally, the assessment largely focuses on the ability of the wetland vegetation communities to persist under conditions where precipitation becomes the primary water source. This approach does not adequately address potential impacts to other ecological functions of the wetland, including vernal pools and amphibian breeding habitat that may be supported by the existing shallow groundwater table.

Several species with CC value greater than 6 are identified within the botanical species list in the NER, including one species with a CC of 10, species with a high CC value have a high degree of fidelity to specific habitats and a low tolerance to changes in their environment and site disturbance. These species should be discussed and considered as part of the assessment of impacts resulting from a change in groundwater to the wetland communities. Several communities also had a significant number of obligate wetland species, and impacts to those communities should be considered and discussed specifically when it comes to changes in groundwater levels.

Lastly, the assessment assumes that the organic-rich wetland soils will continue to provide adequate water retention under altered hydrologic conditions. However, this assumption does not sufficiently consider the potential impacts of seasonal drought. Prolonged drying of organic soils can lead to irreversible structural changes that reduce their water-holding capacity. The potential role of the current shallow groundwater table in maintaining soil moisture during periods of limited precipitation should therefore be more thoroughly evaluated.

## **Conclusion**

In conclusion, our review of the submitted documents indicates that several outstanding concerns remain that require clarification and additional justification to demonstrate that potential impacts have been fully considered. While the supplemental responses and supporting information have addressed a number of the previously identified data gaps, further information and, where necessary, supplemental field investigations are recommended to ensure that the impact assessment has been completed at an appropriate level of detail. At this stage, AA is unable to fully confirm that all potential impacts to surrounding natural heritage features have been adequately characterized.

Given the number of supplemental technical memoranda and assessments prepared since the original submission of the Natural Environment Report, it is recommended that these materials be consolidated and resubmitted as part of a single comprehensive report and include an updated NER that integrates all responses to comments from all submissions. This would ensure that all findings are clearly integrated and that potential effects are evaluated collectively within the overall impact assessment framework.

Several comments remain regarding the implementation of mitigation measures and the scope of the proposed ecological monitoring plan, which require revision. To ensure that potential impacts to the surrounding natural environment are effectively mitigated, it is recommended that a more comprehensive and quantitative ecological monitoring plan be developed. At a minimum, this plan should include defined monitoring commitments for wetland vegetation plot monitoring, soil moisture readings, floristic quality assessment, amphibian monitoring, and salmonid redd spawning surveys. Monitoring should be conducted multiple times per year and across spring, summer and fall to ensure a comprehensive picture of baseline conditions and adequately captures changes that may be seasonal in nature. These surveys directly monitor the sensitive receptors identified in the impact assessment and should form the foundation of the monitoring framework.

Pre-extraction surveys throughout the limits of the groundwater impact area should be completed to establish clear baseline existing conditions. In addition, well-defined trigger thresholds and corresponding adaptive management measures should be clearly outlined and formally committed to. The monitoring program should be implemented annually throughout the active extraction phase and continue for an appropriate period following site restoration to evaluate potential long-term effects. One year of post-restoration monitoring is not sufficient to evaluate long-term impacts, given that the most significant impact is expected post-restoration (permanent change to groundwater availability). For the post-restoration phase, a reduction in monitoring frequency may be appropriate only once monitoring results demonstrate that no adverse impacts have occurred.

Please contact the undersigned should you require additional information of the above.

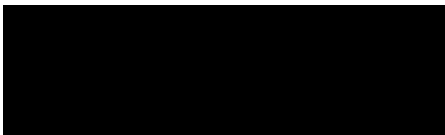
Yours truly,

**ABOUD & ASSOCIATES INC.**



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&



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Attachments:

- Appendix A NER Checklist
- Appendix B Comment Matrix

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**Applicable Legislation Assessment:**

LEGISLATION	APPLICABLE	COMPLETE
Fisheries Act	X	X
SARA (Species at Risk Act)	X	X
ESA (Endangered species Act)	X	X
PPS (Provincial Policy Statement)	X	X
Fish and Wildlife Conservation Act	N/A	N/A
Growth Plan for the Greater Golden Horseshoe	X	X
Specific provincial legislation (Aggregate Resources Act)	X	X
GRCA policies	X	X
Township of Puslinch Zoning By-Law 023-18	X	X
County of Wellington OP	X	X
MBCA (Migratory Bird Convention Act)	X	X

**Background Review Assessment:**

SOURCE	INCLUDED IN REPORT
NHIC (Natural Heritage Information Center)	X
MNRF Request for Information	X
Ontario Breeding Bird Atlas	X
MNRF District Species Lists	Not identified
Ontario Reptile & Amphibian Atlas	X
Ontario Mammal Atlas	X
DFO Aquatic species at risk mapping	X
Locally significant species lists: <ul style="list-style-type: none"> <li>• A checklist of Birds Within the Grand River Watershed, Grand River Conservation Authority, date unk.</li> <li>• List of Significant Wildlife in Wellington County, Dougan &amp; Associates, 2009.</li> </ul>	Not identified
GIS sources: LIO woodlands, wetlands, Fish dot mapping etc.	X
Subwatershed study/natural heritage strategy (if available):	X
Citizen Science: eBird, iNaturalist, Butterfly Atlas	X

**Field Studies Assessment:**

STUDY	REQUIRED	COMPLETE
Ecological Land Classification	X	X
Generalized Habitat Assessment & Visual Encounter Surveys	X	X
Spring Botanical	X	X
Summer Botanical	X	X
Fall Botanical	X	X
Breeding Birds	X	X
Grassland Breeding Bird		
Amphibian Call	X	X
Wetland Delineation per OWES Methodology	X	X
Aquatic Habitat Assessment	X	X
Fish community composition surveys	X	X

Appendix A. Peer Review Checklist – Natural Environment Report & Supplemental Attachments  
 Project Title: CBM Aberfoyle South Lake Pit, Township of Puslinch, ON

STUDY	REQUIRED	COMPLETE
Headwater Drainage Feature Assessment	X	X
Woodland Dripline Delineation	X	X
Bat Maternity Habitat Assessment	X	X
Bat Acoustic Survey	X	X
Snake surveys	X	X
Turtle Overwintering/nesting		
Turtle Visual Surveys	X	X
Salamander egg-mass/breeding	X	X
Winter Raptors		
Songbird Migration		
Waterfowl Migration		
Woodland Significance	X	X
Significant Wildlife Habitat Screening	X	X
Species at Risk Habitat Screening	X	X
Species at Risk Specific Surveys -Black Ash -Butternut -Species at Risk Bats	X	X

**Ecological Report Assessment:**

COMPONENT	COMPLETE
The report adequately describes the proposed development	X
All sources included and documented in references	X
Field work completed within last 5 years	X
All applicable policy is included, and justification provided for meeting policy objectives for each feature.	X
All field surveys were completed following an acceptable protocol (e.g., OBBA Breeding Bird Protocol, Marsh Monitoring Protocol for Amphibians, OWES, MNRF species-specific protocols).	X
Buffers to natural heritage features are included, and justified	X
Constraints on site have been adequately described, assessed, and impacts mitigated using acceptable methods	See comments
Figures are concise and display all necessary information for the site.	X
Consistency between results and conclusions or missing information between the data collected and the report (e.g., observed a species of conservation concern, but no discussion).	X
Ensure all potential impacts to natural features or ecological functions are discussed	See comments
Ensure justifications of impact are adequately supported by sources	See comments
Review for internal contradictions	X
The report adequately mitigates any impacts	See comments
All potential impacts are discussed and referenced appropriately	See comments

Num	Topic	Section	Aboud Comment (February 8, 2024)	WSP Response (October 22, 2025)	Aboud Response (March 13, 2026)	Status
1	Natural Environment	Section1: Introduction	The study area should include lands outside of 120m when considering linkages and cumulative impacts.	<p>For aggregate proposals such as the Aberfoyle South Lake Pit the 120 m area of investigation represents ‘adjacent lands’ for natural heritage features as defined in the Natural Heritage Reference Manual (NHRM: MNR, 2010) that is also adopted by the ARA standards requirements. The purpose of identifying the extent of ‘adjacent lands’ is to establish the area in which potential impacts from a proposed change in land use might occur. The Province’s recommended distances for defining adjacent lands provided in NHRM tables are drawn from various scientific studies and are an attempt to balance the range of research showing the impacts of development.</p> <p>The Province’s recommendations are based on a review of current scientific research that includes studies covering topics such as the sensitivity of species to disturbance, the habitat requirements of species, and the extent of the influence of development and site alteration on species. In a case such as the Aberfoyle South Lake Pit, the impact of this type of development would be initially realized within 120 m the site, as such respecting impacts to this near-site area and application of mitigation to protect this area is a reasonable means of addressing potential impacts and applying development changes or mitigation to the proposed aggregate application. As such the report introduction reference the 120 Adjacent Land area.</p> <p>Although the report includes a landscape assessment beyond 120 metres, it also addresses potential influences beyond this distance where appropriate, as described below.</p> <p>Impacts to linkages in the local landscape beyond 120 m from the site are not anticipated. Linkage concerns would be, by definition within 120 m of the site, otherwise they would not be considered as a linkage relative to the site. Cumulative impacts relating to hydrology and hydrogeology are addressed separately in the Water Report Level 1 &amp; 2 (WSP 2023) and are considered in the broader landscape beyond 120 m. In addition, the investigation of wetlands and fisheries are addressed with consideration to areas beyond the 120 in the report body and subsequent addendum.</p>	See Response to Comment #2	Not Addressed
2	Natural Environment	Section1: Introduction	The study area should include the area outside of 120 m when considering impacts to natural heritage features due to drawdown impacts to groundwater. Per the Water Report Level 1 and 2, impacts are expected as far as 720 m from the extraction area by the end of year 6. This has significant potential implications for all sensitive natural heritage features up to 720 m.	<p>The assessment of impact on natural heritage features within 120 m of the licence limit is a reasonable selection based on the conservative nature of modeled groundwater drawdown and the sensitive nature of receptors within 120 m.</p> <p>The model conservatively estimates drawdown and baseflow changes as detailed in Section 3.5.3 of Appendix G of the Water Report. Mill Creek is modeled as a drain boundary condition for the impact assessment on wetlands, as this represents drawdown conservatively. This approach is conservative but reasonable for its purpose. It is expected that the monitored response of the aquifer to extraction would be significantly less than that predicted.</p> <p>As provincially significant wetlands (PSW) and sensitive watercourses are identified nearby the licence limits, the natural heritage features most likely to</p>	<p>This approach assumes that natural environment features and receptors, such as fish habitat, turtle habitat and wetlands, observed within 120 m are consistent and exhibit similar levels of sensitivity to the features beyond the 120 m study area. Given the large area of impacts anticipated beyond 120 m, there is a high likelihood that these features will have differing habitat characteristics to what has been observed within 120m and introduces the risk of misrepresenting potential impacts beyond 120 m.</p> <p>There is also concern that the assessment appears to focus primarily on the licence area, which does not sufficiently account for the potential extent of groundwater drawdown impacts beyond this boundary. As the predicted drawdown</p>	Not Addressed

Num	Topic	Section	Aboud Comment (February 8, 2024)	WSP Response (October 22, 2025)	Aboud Response (March 13, 2026)	Status
				<p>be impacted by the proposed operations have been included in the impact assessment. It is reasonable to conclude any impacts likely to occur are likely to occur within 120 m of the licence limit.</p> <p>Therefore, the impact assessment focused on natural heritage features within 120 m is a reasonable approach in the NE impact assessment.</p>	<p>extends outside of the licence area, natural heritage features located in these areas may also experience hydrologic changes and should therefore be considered as part of the impact assessment.</p> <p>As currently presented, the sensitivity of features beyond the 120 m study limit has not been characterized and remains unknown. It is recommended that additional field investigations be completed beyond 120 m where groundwater drawdown is predicted in order to document existing conditions and confirm that potential impacts have been appropriately evaluated.</p>	
3	Natural Environment	Section 2: Environmental Policy Context	Section 2.8: fish habitat is listed as both Greenlands and Core Greenlands. Please clarify.	Fish habitat is listed as a component of both the Greenlands (Section 5.5.1) and Core Greenlands (Section 5.4.2) designations according to the County's Official Plan.	Acknowledged.	Addressed
4	Natural Environment	Section 2: Environmental Policy Context	Section 2.9 does not reference any of the relevant GRCA policies or regulations regarding wetlands or watercourses. Please include relevant policies to this section.	<p>Exception for aggregates under <i>Conservation Authorities Act</i> states that prohibitions in subsection (1) do not apply to an activity approved under the <i>Aggregate Resources Act</i> (ARA) after this subsection came into force. The Ref. Aggregate Resources Act, 1990, Reopened Royal Assent. 2017, c.23, Sched.4, s.25. This proposal is an application under the ARA.</p> <p>With respect to the new CA Regulation 41/24, the GRCA 2024 document <i>Policies for the Administration of the Prohibited Activities, Exemptions and Permits Pursuant to Ontario Regulation 41/24</i> are considered in the approach to address impacts and mitigation recommendations.</p> <p>However, under Section 4.0 Areas of Regulation 41/24 it states: <i>The Regulation does not apply to activities approved under the Aggregate Resources Act (Conservation Authorities Act, RSO 1990, c.27, 281/10).</i></p> <p>This response matrix fulfills the circulation and participation component of the ARA and consideration to GRCA regulations both new and old, are essentially implemented in the NER's report with respect to wetlands and watercourses. With the GRCA has expertise watercourses are also subject to DFO guidance and approval through an on-going iterative review process initiated through the submission of a Request for Review that is currently in progress.</p>	Acknowledged.	Addressed
5	Natural Environment	Section 4: Environment Methods	Table 1: please include weather conditions, names and qualifications of staff members undertaking these assessments, particularly for the ELC and wetland delineation.	Please see Attachment 1, Table 2: Weather Conditions and Staff Qualifications for weather conditions of each field survey.	Acknowledged.	Addressed
6	Natural Environment	Section 4: Methods	Table 1: most of these surveys occurred in 2018, which is close to the five-year limit of validity of information. Surveys to update 2018 information should be completed prior to any site clearing for amphibians, breeding birds and	<p>Site visits have been conducted; as noted in the responses, where data appeared outdated or where additional clarity was needed to support the comments provided.</p> <p>Furthermore, it should be noted that in the case of Aberfoyle South Lake Pit, the majority of the extraction area is agriculture with low potential for SAR or</p>	The extraction area represents only one component of the potential impacts associated with the proposed operation. The predicted groundwater drawdown extends beyond the extraction footprint and may affect surrounding habitats capable of supporting Species at Risk and other sensitive receptors, including Brook Trout.	Not Addressed

Num	Topic	Section	Aboud Comment (February 8, 2024)	WSP Response (October 22, 2025)	Aboud Response (March 13, 2026)	Status
			botanical inventories, should the project begin later than December 2024.	other rare/sensitive species. These conditions have been confirmed through on-going site visits (quarterly) and complimentary review of aerial imagery that support the fact that there has been no notable change to habitat on site.	Based on Table 2 (Supplemental Attachment 1), the Anuran Call Count (ACC), amphibian egg mass surveys, turtle habitat assessment, breeding bird surveys, ELC/botanical inventories, and fish habitat surveys do not appear to have been updated since their original completion in 2018. If additional surveys have been completed within the past five years to supplement these findings, this information should be included in the Natural Environment Report. Otherwise, updated surveys should be completed to confirm current conditions prior to Phase 1 extraction, including areas beyond 120 m expected to be influenced by the proposed quarry, as discussed in Response #1.	
7	Natural Environment	Section 4: Methods	Section 4.3.3: Please identify the sampling protocol used to complete the Turtle Habitat Assessment.	The habitat assessment was based on guidance from the Survey Protocol for Blanding’s Turtle ( <i>Emydoidea blandingii</i> ) in Ontario (MNRF 2015), as well as habitat descriptions from Blanding’s Turtle General Habitat Description (MNRF 2013) COSEWIC Assessment and Status Report for Snapping Turtle (COSEWIC 2009) and COSEWIC Assessment and Status Report for Blanding’s turtle (COSEWIC 2017).	Acknowledged.	Addressed
8	Natural Environment	Section 4: Methods	Section 4.3.1 identifies that an early summer, late summer and fall botanical was completed, this contradicts references elsewhere, identifying the first survey as a spring botanical. Early summer is more appropriate terminology per the timing of the survey.	Acknowledged.	Acknowledged.	Addressed
9	Natural Environment	Section 4: Methods	Section 4.3.6 identifies that the assessment protocol followed the MNRF 2017 protocol, given that the protocol has had several iterations since 2017 including most recently, changes in guidance provided by the MECP, please clarify that all trees greater than 10cm were reviewed for suitability and survey parameters met the requirements for assessment per the most recent MECP guidance documents (2022).	All trees greater than 10 cm DBH were considered in the bat habitat assessment.	Acknowledged.  Given the passage of time since the original review comments were provided, we note that several additional bat species have since been listed under the Endangered Species Act and should be considered as part of this application.  Accordingly, the bat habitat assessment should be updated to reflect the most recent MECP guidance and communications regarding potential maternity and roosting habitat for these species. In particular, recent MECP guidance indicates that vegetation such as shrubs and trees less than 10 cm DBH may provide suitable maternity and roosting habitat. These features should therefore be considered in addition to the previously completed habitat suitability assessment, which only evaluated trees greater than 10 cm DBH.	Not Addressed
10	Natural Environment	Section 4: Methods	Per AA’s Pre Consultation peer review, visual encounter surveys for snakes should have taken place alongside other herptile surveys.	Visual encounter surveys for snakes were conducted concurrently with all other field surveys, as described in Section 4.3.8, Section 5.6 and Appendix E of the NER.	Acknowledged.	Addressed

Num	Topic	Section	Aboud Comment (February 8, 2024)	WSP Response (October 22, 2025)	Aboud Response (March 13, 2026)	Status
11	Natural Environment	Section 4: Methods	Per AA's Pre Consultation peer review, a linkage and connectivity assessment needed to take place. This appears not to have been done, and the results of such an assessment are not discussed in this document.	An assessment of wildlife movement corridors/linkages was completed as part of the discussion of animal movement corridor SWH in Section 6.7.3 of the NER.	<p>While Section 6.7.3 addresses Significant Wildlife Habitat (SWH) related to animal movement corridors, linkage and connectivity impacts should also be considered more broadly at the landscape level. A comprehensive discussion of potential impacts to ecological linkages and habitat connectivity should be included in addition to the evaluation of specific SWH movement corridors.</p> <p>The linkages and connectivity assessment should be informed by all field observations and data collected. For example, the Headwater Drainage Feature (HDF) Assessment identifies several HDFs as providing "Contributing Functions" for wildlife movement corridors and separately amphibian breeding has been recorded either within or adjacent to these features. Given that the current plan proposes the removal of these HDFs, the implications for overall wildlife movement and habitat connectivity should be assessed and discussed.</p>	Not Addressed
12	Natural Environment	General	Per AA's Pre Consultation Peer Review, headwater drainage feature assessments were required for the site; these surveys are not identified or discussed in the report. This survey is particularly important to determine the regime for tributary 3 as well as to identify any HDF's that occur within the agricultural areas.	<p>It should be noted that Tributary #3 has been referred to as both intermittent and perennial within the different existing conditions reports. The reference to the seasonality of the stream has been based on the fact that the installed loggers have measured zero flow on at least four occasions, while during these periods, pooled water was still present. Further to this, while the depth during these low flows is insufficient to likely to sustain fish during summer, there is insufficient baseflow to consistently sustain water in Tributary #3. Additional information is provided in the attached Fish Community Assessment. Therefore, referring to Tributary #3 as intermittent is appropriate when considering fish habitat.</p> <p>Per the Evaluation, Classification and Management of Headwater Drainage Features Guidelines (TRCA &amp; CVC 2014), pre-consultation with the Conservation Authority is recommended to determine scope and identify gaps with respect to the need for a Headwater Drainage Feature (HDF) Assessment. GRCA reviewed and provided comments on the Terms of Reference in November 2021 and did not identify the need for a HDF assessment. As such, it was not included in the field survey scope. Subsequently, in response to Bako's comment, a HDF Assessment has been undertaken. The site visits were completed in August 2024, March 2025 and May 2025 in accordance with the abovementioned guideline (TRCA &amp; CVC 2014) and Section 4, Module 11 for Unconstrained Headwater Sampling of the Ontario Stream Assessment Protocol (MNRF Version 10, 2017). Potential HDFs, drainage patterns and linkages between the site and watercourses (i.e., Tributary 3, Tributary 5 &amp; Mill Creek) were identified. Nine areas were identified as having potential HDF (Attachment 3):</p> <ul style="list-style-type: none"> <li>Of the nine potential HDFs, seven (HDF3 to HDF9) were dry or only contained stagnant water in the spring assessment and were all dry in the summer assessment.</li> </ul>	<p>Acknowledged.</p> <p>Please refer to the detailed comments provided for the supplemental Attachment #2: <i>Fish Community Survey</i> (Comment #71-73) and Attachment #3: <i>Headwater Drainage Feature Assessment</i> (Comment #74-79) for further discussion.</p>	Partly Addressed

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				<ul style="list-style-type: none"> <li>It was observed that the remaining two features (HDF1 and HDF2) provide some movement of water off the property and were moved forward through the unconstrained HDF assessment.</li> </ul> <p>Based on the assessment, drainage segments HDF1 and HDF2 were assessed at the <i>Maintain Recharge</i>, while the seven remaining drainage segments were assessed as <i>No Mitigation Required</i>.</p> <p>The following recommended management, outlined by the HDF Guidelines (TRCA and CVC, 2014), are in place for Maintain Recharge of HDFs on site:</p> <ul style="list-style-type: none"> <li>Maintain overall water balance by implementing mitigation measures to promote infiltration of rainwater runoff.</li> </ul> <p>It should also be noted that, due to the implementation of O.Reg.41/24, HDF are no longer under the jurisdiction of Conservation Authorities, and further, Conservation Authority policies are not applicable to applications under the ARA, which do not require permits or approvals from Conservation Authorities.</p>		
13	Natural Environment	General	Per AA's Pre Consultation Peer Review, Fish Community Sampling was required for the on-site watercourses to determine species present; these surveys were not identified or discussed in the report.	<p>A fish community survey was undertaken in September 2024, and the assessment is provided in Attachment 2. The findings of the fish community survey support what is reported in Section 5.6.4 of the NER.</p> <p>Tributary #3 was classified as fish habitat with assumed similar species assemblage as Mill Creek. This classification was in line with MNR records and observations of small-bodied fish within Tributary #3. The assessment in the NER took into account that Tributary #3 is fish habitat. The Mill Creek is frequently sampled with current data available.</p> <p>The Project was submitted for DFO review to assess the potential of the Project to result in 'death of fish' and/or 'harmful alteration, disruption or destruction of fish habitat' (HADD).</p> <p>Ongoing consultation with DFO is underway. DFO are reviewing the water reports as well as the supplementary technical memorandum, which included all Tributaries as well as Mill Creek.</p>	<p>Acknowledged.</p> <p>Please refer to the detailed comments provided for the supplemental Attachment #2: <i>Fish Community Survey</i> (Comment #71-73) for further discussion.</p>	Partly Addressed
14	Natural Environment	General	Per AA's Pre Consultation Peer Review, a feature-based water balance assessment of the wetlands present on/adjacent to site (TRCA wetland water balance risk evaluation (2017), or equivalent), discussion of impacts to the wetland due to the proposed changes to the quantity of water, including the proposed significant changes in the groundwater elevation, should be included in the report.	<p>The potential impacts of the proposed pit operation on PSW areas have been further assessed through a more detailed examination of wetland hydrology on a zone-by-zone basis, following hydrologic first principles. The supplemental assessment considered the relative importance of the water inputs and outputs and the effect of the organic layer in retaining water to the hydrology of the seven PSW zones identified at the Site in the Water Report.</p> <p>– The PSW zones to the north of the Site are primarily supported by direct precipitation and surface water during high water level events (such as the spring freshet), and impacts to these zones are predicted to be minor (Zone 5) to minimal (Zones 1 and 6) during operation and post-rehabilitation.</p>	<p>Acknowledged.</p> <p>Please refer to the detailed comments provided for the supplemental Attachment #7: <i>Assessment of Potential Impacts to Provincially Significant Wetlands</i> (Comment #83-87) for further discussion.</p>	Partly Addressed

Num	Topic	Section	Aboud Comment (February 8, 2024)	WSP Response (October 22, 2025)	Aboud Response (March 13, 2026)	Status
				<p>– The PSW zones to the east, south, and west of the Site primarily rely on direct precipitation with little input from runoff or groundwater discharge. Consequently, potential impacts to these wetland zones were predicted to be minor (Zones 2 and 3) to negligible (Zones 4 and 7) during operations and post-rehabilitation.</p> <p>– The exception is Zone 3a in the southern central portion of the Site, which has a moderate potential for impact during the early years of operation, primarily due to a short-term reduction in groundwater inputs to that PSW sub-zone as a result of aggregate extraction.</p> <p>Overall, the potential for impacts to the PSW zones surrounding the Site are predicted to be minor to negligible, with the exception of PSW Zone 3a, which can be monitored and may require corrective action during early phases of operations to ensure its wetland function is maintained. The proposed monitoring, conceptual approach to the development of triggers, and potential corrective actions are detailed in the Monitoring Plan.</p>		
15	Natural Environment	Section 5: Existing Conditions	Section 5.5.3: A valid spring botanical was not undertaken, the generally accepted spring botanical window is from late April through early June, ideally taking place in May where ephemeral species are present. As the first botanical inventory took place June 26 and June 29, spring ephemeral species may not have been identified, as ephemeral species that would no longer be physically present by late June are not identified in the species lists (e.g. trout lily ( <i>Erythronium americanum</i> ), bloodroot ( <i>Sanguinaria canadensis</i> ), wild leek ( <i>Allium tricoccum</i> ), Jack-in-the-pulpit, red trillium and Virginia waterleaf persist well into summer.	The Terms of Reference included a three season botanical inventory, which was completed: early summer, late summer and fall. As discussed in Section 4.3.1, summer surveys were deemed more appropriate and useful because the majority of natural plant communities on the site were characterized by swamp, and summer is the period during which most wetland vegetation is identifiable. Several spring species and woodland sedges that would be captured during a spring visit were still recorded on the plant list, and no early-season SAR or rare plant species were flagged through the SAR screening. Further, because all of the swamp is also PSW and therefore must be protected, a conservative approach can be taken to assume that other common spring ephemeral species with swamp habitat preference are present.	<p>In order to adequately assess potential negative impacts associated with the modelled changes in groundwater surrounding the site, an updated and complete plant inventory should be conducted, with species screened using wetness indices to identify those particularly sensitive to altered moisture conditions. Given the potential presence of spring ephemeral species, a spring botanical survey should be completed to supplement the existing inventory.</p> <p>It is also noted that the botanical inventories completed to date are from 2018, and it is unclear whether these have been updated within the last 5 years. Updated surveys are required, including within the potentially affected wetland communities beyond 120 m.</p> <p>For clarity, we request that the results of the botanical inventory be provided as separate lists for each distinct vegetation community, as the modelled changes in groundwater elevation is anticipated to differ spatially across the site and should be considered as part of the impact assessment.</p>	Not Addressed
16	Natural Environment	Section 5: Existing Conditions	A three season botanical was listed in the studies to be performed in the Terms of Reference, including a spring study.	See Response to Comment #15	See Response to Comment #15	Not Addressed
17	Natural Environment	Section 5: Existing Conditions	Table 3: please provide this data in the form of call level codes, per the Marsh Monitoring Program’s protocol.	Please see Attachment 1, Table 3: Anuran Call Count Survey Results for the Proposed Aberfoyle South Pit Expansion Study Area	<p>Acknowledged.</p> <p>Please refer to the detailed comments provided for the supplemental Attachment #1, Table #3: <i>Amphibian Call Count Data</i> (Comment #68-69) for further discussion.</p>	Addressed

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18	Natural Environment	Section 5: Existing Conditions	Section 5.6.1, please include a summary column outlining whether the habitat meets the threshold for significance.	See Response to Comment #17	Acknowledged.  Please refer to the detailed comments provided for the supplemental Attachment #1, Table #3: <i>Amphibian Call Count Data</i> (Comment #68-69) for further discussion.	Addressed
19	Natural Environment	Section 5: Existing Conditions	Section 5.6.2: please identify which of the 52 observed species were considered to be breeding (possible, probable, and confirmed), and provide the highest breeding evidence for the threshold for significance.	Please see Attachment 1, Table 4: Breeding Bird Evidence	Acknowledged.	Addressed
20	Natural Environment	Section 5: Existing Conditions	Section 5.6.4: please include a text summary of the fish habitat survey results here.	A fish community survey was undertaken in September 2024, and the assessment is provided in Attachment 2.	<p>Please refer to the detailed comments provided for the supplemental Attachment #2: <i>Fish Community Survey</i> (Comment #71-73) for further discussion.</p> <p>The fish habitat survey results included in the NER are currently limited to the summary table in Appendix F. Without additional discussion in the report, several uncertainties remain. For example, the location and extent of assessed reaches are unclear, including justification for establishing separate reaches along the same watercourse where changes in habitat conditions may warrant a natural reach break.</p> <p>Additional uncertainty exists regarding the potential presence and location of sensitive and/or specialized fish habitat. It is noted that watercress was observed within Mill Creek, Tributary #1, and Tributary #3, and that the substrate in these features is estimated to consist predominantly of gravel (70–85%). These conditions are consistent with habitat suitable for Brook Trout and Brown Trout spawning. Clarification and justification are required for whether these observations constitute sensitive and/or specialized fish habitat, and the impact assessment should be revised accordingly.</p> <p>Given the uncertainty of salmonid spawning within Mill Creek and the associated tributaries, it is recommended that redd surveys be conducted to support the impact assessment.</p> <p>It is also noted that a large portion of Mill Creek and its associated tributaries fall outside of the 120 m study limit but are within the area of anticipated groundwater impacts. Additional fish habitat surveys in these areas are required to characterize habitat conditions and support the impact assessment.</p>	Not Addressed

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21	Natural Environment	Section 5: Existing Conditions	Section 5.6.5 – Per communication with the MECP on a nearby municipal project, Blanding’s turtle habitat likely occurs in the vicinity of the study area and should be considered for this project. Please reach out to MECP for details on the observation and how it may impact the work.	Acknowledged. WSP is communicating with MECP.	Please include any correspondence with MECP regarding the element occurrence of Blanding’s Turtle once it is received.	Not Addressed
22	Natural Environment	Section 6: Assessment of Significant Natural Heritage Features	Section 6.1: Blanding’s turtle habitat should be included in the assessment of significance.	Although the study area is within the range of Blanding’s turtle, no individuals were observed during the field surveys. The MECP has provided information indicating that Blanding’s Turtle sightings have been recorded approximately 2 km from the proposed extraction site. Assessed as Low in SAR Screening.	Acknowledged. Please confirm whether this assessment remains unchanged following receipt of the additional MECP correspondence referenced in Comment #21.	Not Addressed
23	Natural Environment	Section 6: Assessment of Significant Natural Heritage Features	Section 6.1 Black Ash requires updating due to recent changes, including Black Ash protections under the ESA having been implemented.	Acknowledged. However, all black ash identified on the site were dead. As stated in Table 1 of the Black Ash Assessment Guidelines (MECP 2024) and in accordance with O. Reg. 6/24, dead black ash trees do not receive individual protections under Section 9 of the ESA, and therefore also do not receive habitat protections under Section 10 of the ESA (and in accordance with O. Reg. 7/24). Further, a health report is only required for live trees measuring greater than 8 cm DBH. Because all the black ash trees on the site are dead, no health report is required.	Acknowledged.  Given the passage of time since the original botanical inventory, updated surveys are required. Should any additional Black Ash trees be observed, the implications under the aforementioned regulations and guidance documents should be discussed, and the locations of any individuals should be included on relevant figures.  In addition, consideration should be given to the potential for Black Ash to occur within areas that may experience groundwater drawdown but were not fully surveyed due to access limitations. The assessment should discuss potential impacts should Black Ash be present within the predicted drawdown zone.	Not Addressed
24	Natural Environment	Section 6: Assessment of Significant Natural Heritage Features	Section 6.2: fish habitat significance within the study area requires significant additional detail, including the significance of each tributary, their thermal regimes and if they have been identified as permanent or intermittent. Mill Creek is a known important Trout spawning area, and this information should be discussed in the report, as it pertains to changes in groundwater flow to Mill Creek and identified tributaries.	A fish community survey was undertaken in September 2024 and the assessment is provided in Attachment 2.  Ongoing consultation with DFO is underway. DFO is reviewing the water reports as well as the supplementary technical memorandum, which include all Tributaries as well as Mill Creek.	See Response to Comment #20	Not Addressed
25	Natural Environment	Section 6: Assessment of Significant Natural Heritage Features	Section 6.4: the use of on-site and off-site is unclear, recommend that text in the report is consistent with figures in the use of license boundary/site boundary and study area.	Acknowledged. As defined in Section 1.1, the site boundary corresponds to the area that is proposed for licensing under the ARA.	Acknowledged.	Addressed
26	Natural Environment	Section 6: Assessment of Significant Natural Heritage Features	Section 6.7.2 identifies that SWH for Seeps is present in the study area, and that impacts to seeps are discussed in section 7. Impacts to Seeps are not carried forward to the impact assessment sections 7.1 or 7.2, this must be addressed as it has implications to negatively	The term ‘seeps’ in the Natural Environment Report refer to diffuse groundwater discharge into wetlands and surface water features (such as Mill Creek). The statement contained in the Natural Environment Report is based on the observation of vegetation often associated with groundwater discharge, observed in or near Mill Creek, as detailed in the appendices of that report and the attached Supplemental Assessment of Potential Impacts to Provincially	The identification of and impact on seeps and springs is not adequately supported by the field observations presented. Clarification is required to identify the presence, ecological significance, and potential impacts to seeps and springs within the study area.	Not Addressed

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			<p>impact the SWH per the impacts to groundwater.</p>	<p>Significant Wetlands – Proposed CBM Aberfoyle South Lake Pit (Attachment 7).</p> <p>WSP acknowledges inconsistent naming but confirms these observations align with the Water Report’s findings regarding groundwater and surface water interactions near Mill Creek.</p> <p>Impact assessments of these features are complete and presented in the Natural Environment Report and Water Report and supplemented in additional comment responses where applicable.</p>	<p>The results of the fish habitat surveys indicate the possible presence of seeps and springs within Mill Creek, Tributary #1 and Tributary #3, as evidenced by the presence of watercress. Additionally, the Significant Wildlife Habitat Technical Guide (SWHTG; MNR 2000) recommends that the location of Brook Trout redds be used to support the identification of seeps and spring. Additionally, the SWHTG suggests that where seeps and springs support fish habitat, they should be considered higher significance. Redd surveys have been recommended to support the fish habitat assessment, and these results should also be incorporated into the assessment of SWH for seeps and springs and subsequent impact assessment.</p> <p>Observations documented in the HDF assessment further suggest that some of these features may function as seeps and spring. As noted in the SWHTG, seeps and springs may dry up during summer conditions; however, the highest significance is generally assigned to features that maintain moist conditions year-round. It is noted that moist conditions and standing water were observed during the third HDF site visit under summer dry conditions, which is likely indicative of groundwater discharge.</p> <p>Additionally, the NER states that seeps and springs are likely present throughout the Mill Creek-Puslinch PSW. This conclusion appears inconsistent with the findings presented in the supplemental Attachment #7: <i>Assessment of Potential Impacts to Provincially Significant Wetlands</i> which indicates that groundwater contribution is a relatively minor source of water in comparison to direct precipitation inputs.</p> <p>Please refer to the detailed comments provided for the supplemental Attachment #7: <i>Assessment of Potential Impacts to Provincially Significant Wetlands</i> (Comment #83-87) for further discussion.</p>	
27	Natural Environment	Section 7: Impact Analysis	<p>Overall, the Impact Analysis section is lacking in carrying forward significant features identified in the existing conditions, including the presence of significant wildlife habitat on site in the form of Seeps, habitat for species of conservation concern, and deer wintering as well as the potential to impact Species at Risk, particularly Black Ash, which is a facultative wetland species. Impacts to the groundwater extend significantly further than the identified</p>	<p>See Response to Comment #26.</p> <p>Given the extensive size of the off-site woodland and wetland habitat within the study area, these features are expected to serve primarily as core habitat (e.g., deer wintering area, interior forest habitat). The woodland habitat and associated Provincially Significant Wetland (PSW) are situated outside the proposed extraction zone and will not be directly affected.</p> <p>The proposed pit is predicted to cause limited changes to the hydrology of the wetlands, which demonstrate considerable variability in existing conditions. As</p>	<p>See Response to Comment #26</p> <p>See Response to Comment #2</p> <p>See Response to Comment #23</p>	Not Addressed

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			<p>study area and have significant implications for impacts to SWH and SAR, in particular Seeps are important components of habitat for winter wildlife and any changes to the water table may impact black ash at a significant distance from the site.</p>	<p>such, the wetlands are expected to continue supporting a range of wildlife functions, including habitat for Wild Turkey, Ruffed Grouse, and White-Tailed Deer and an adequate moisture regime for Black Ash.</p> <p>In addition, Black Ash was observed in the thicket swamp at the north edge of the site, all individuals in this community were dead due to emerald ash borer infestation. Therefore, no adverse impacts to Black Ash in this community are anticipated as a result of the proposed extraction activities.</p>		
28	Natural Environment	Section 7: Impact Analysis	<p>Section 7.1: Per Water Reports level 1 &amp; 2, a permanent change in groundwater gradients is expected as a result of the pond, including an increase in groundwater level in the southwest corner of up to 1m, and a decrease in groundwater level in the north east corner of up to 1m, impacts to fish habitat as a result of these changes are not discussed in detail in the report.</p>	<p>As presented in the Supplementary Assessment of Potential impacts to baseflow in Mill Creek and Tributary 3, and as shared with DFO – As discussed in the Water Report and further illustrated through the introduction of new modelled surface water stations, there will be a localized redistribution of baseflow along reaches of Tributary 3 and Mill Creek post-rehabilitation relative to current conditions. There will be short reaches that experience a decrease in baseflow and short reaches that experience an increase in baseflow, both on Mill Creek and on Tributary 3. Overall, the net change in baseflow to the system as a whole in the vicinity of the site as simulated at the confluence of Tributary 3 and Mill Creek is predicted to be very small, about 0.1%.</p> <p>This small change is not considered to have any notable effect on the function or ecological integrity of the watercourse.</p>	<p>It is acknowledged that the overall baseflow downstream of these features is predicted to remain relatively unchanged due to localized increases and decreases in groundwater contribution across the southwest and northeast portions of the site, respectively.</p> <p>Despite this, further discussion is required to evaluate the potential impacts of these localized changes to groundwater gradients and baseflow on fish habitat within the watercourses.</p> <p>Reaches that will experience localized reductions in groundwater discharge have the potential to result in disproportionate negative impacts to fish populations and fish habitat, particularly if these reaches currently support critical spawning habitat. Conversely, reaches that will experience localized increases in groundwater levels may result in altered channel hydrology or changes to adjacent riparian and wetland conditions.</p> <p>It is also noted that Tributary #3 has been characterized as an intermittent feature that currently undergoes periods of drought, during which sections of isolated pools remain that may serve as important refuge habitat for fish. This feature was found to support 11 species of fish, with a relatively high number of individuals captured during the fish community survey. A section of Tributary #3 is anticipated to experience a reduction in baseflow through several mechanisms, including reduced groundwater levels, a reduction in the surrounding drainage area, and the proposed removal of HDF-1, which feeds into the tributary. The cumulative effects of these factors should be discussed in greater detail, including how a further reduction in baseflow within this reach may result in conditions where direct fish habitat is no longer supported or creates a permanent barrier to fish movement that limits access to upstream reaches.</p>	Not Addressed
29	Natural Environment	Section 7: Impact Analysis	<p>Section 7.1: Per the groundwater monitoring report included as Figure 15 in Appendix G of Water Reports level 1 &amp; 2, a section of Mill</p>	<p>See Response to Comment #28.</p> <p>Ongoing consultation with DFO is underway. DFO is reviewing the water reports</p>	<p>See Response to Comment #28</p>	Not Addressed

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			Creek totalling ~1600 m in length will see dramatic decreases in groundwater input, while ~900 m length of this area will not longer receive any groundwater input at all. This will have repercussions for the thermal regime of the creek and Brook and Brown Trout spawning. Impacts to fish habitat due to these changes are not discussed in detail in the report. These changes to the groundwater input to Mill Creek and its tributaries likely constitutes a harmful alteration, disruption and destruction (HADD) of fish habitat. Fish habitat is protected from HADD under the Fisheries Act. Impacts to fish habitat because of these changes are not discussed in detail in the report	as well as the supplementary technical memorandum, which included all Tributaries as well as Mill Creek.		
30	Natural Environment	Section 7: Impact Analysis	Section 7.1: the discussion of Tributary 3 identified the watercourse as perennial, while earlier in the report it is identified as intermittent, please identify which is correct.	See response to Comment #12.	Acknowledged.	Addressed
31	Natural Environment	Section 7: Impact Analysis	Section 7.2: per the Water Report Level 1 and 2 (modelled groundwater drawdown, year 6), the PSW's north of concession road 2, up to 720m from the site, will see drawdown impacts of 1m to 0.1m because of the creation of the pond. Further discussion of this impact is warranted, as a potential reduction in hydroperiod may adversely impact the vegetation communities in these features, particularly any vernal pools that may occur within the area that were not assessed for amphibians, as they are located off site.	See response to Comment #14 - PSW Zones	Please refer to the detailed comments provided for the supplemental Attachment #7: <i>Assessment of Potential Impacts to Provincially Significant Wetlands</i> (Comment #83-87) for further discussion.	Addressed
32	Natural Environment	Section 7: Impact Analysis	Section 7.2: impacts related to the increase in groundwater level at the southwestern limit of the site require consideration as part of the impact assessment, upland communities are present directly south of the limit, and an increase in the groundwater level may cause negative impacts to this vegetation community.	To minimize the potential for groundwater uplift, a supplemental assessment is presented in the attached Technical Memorandum. A tile drain is proposed as a mitigation measure to limit groundwater uplift. The proposed tile drain will convey excess water to Tributary 3 and increase baseflow in that reach of Trib 3.	It is understood that a tile drain is proposed along the western limit of the extraction pit to function as a flood mitigation measure and to redirect groundwater uplift northward, discharging into Tributary #3.  This mitigation is anticipated to increase baseflow contributions to Tributary #3 beyond existing conditions. Confirmation is required that the receiving watercourse has been evaluated to demonstrate that the increased flows will not result in channel instability, erosion, or other downstream impacts. In addition, it is noted that Tributary #3 flows through a culvert located at a private driveway on the adjacent property. Confirmation is required that downstream culverts have been evaluated and are appropriately sized to accommodate the proposed increase in flow.	Not Addressed

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					Further, the tile drain is currently proposed within the 30 m buffer from the PSW. While the current land use within this area is agricultural and installation of a tile drain under existing conditions is unlikely to result in direct impacts to the PSW, the tile drain represents long-term infrastructure that will require periodic maintenance, repair, and eventual replacement. Over time, this buffer area is intended to naturalize and become part of the PSW's ecological protection zone. Future access for repair or replacement would require excavation and disturbance within what is intended to function as a restored natural heritage buffer. Locating permanent infrastructure within this setback is therefore not appropriate from a long-term natural heritage planning perspective. Consideration should be given to relocating the tile drain outside of the buffer to avoid future potential impacts.	
33	Natural Environment	Section 7: Impact Analysis	Section 7.2: This discussion identifies that berms may be included within the 30m setback area, this has not been discussed or included on any figures as part of the application within the NHE report, construction and location of any proposed berms should be included and discussed in figures and reports as part of the proposed development as well as discussion regarding impacts to the adjacent PSW due to the installation and management of berms.	Acknowledged. A figure including proposed berm heights, lengths, and locations will be included and considered in all aspects. It is also identified on the Site Plan.	Acknowledged.	Addressed
34	Natural Environment	Section 7: Impact Analysis	Section 7.2: the use of 70% coniferous trees within the buffer planting is not appropriate for the site, any rehabilitation should consider the directly adjacent existing vegetation community and upland species assemblages present in the study area and create a contiguous native species assemblage that increases the area and contiguity of the existing community.	The planting plan was based on the revised rehabilitation plan prepared for the nearby Lanci Pit Expansion which was accepted by the Township. This revised rehabilitation plan was updated based on comments received from a peer review, and was ultimately approved. To clarify, the 70% coniferous species recommendation was for tree plantings on the Site as a whole, and was not meant to be specific to the PSW buffer planting area. It is agreed that the buffer planting area adjacent to the PSW should include species characteristic of the PSW, as well as species characteristic of a transitional upland / wetland interface, and that are suited to the planting conditions, as is stated in Section 7.2 of the NER.	Provided the PSW buffer planting area is comprised of native species consistent with the existing adjacent vegetation communities, Aboud has no further comments and will defer to the Township's Landscape peer reviewer.	Addressed
35	Natural Environment	Section 7: Impact Analysis	Section 7.4: Please include details of the cumulative effects assessment. Only the results are discussed with no context of what was reviewed or considered. This should include discussion of groundwater drawdown impacts outside of the 120m study area.	A summary of this assessment as it relates to Natural Environment was included in the NER. A cumulative effects assessment as it pertains to water resources is provided in the Water Report.	See Response to Comment #28  Due to the submission of several supplemental assessments and technical memorandum, a cumulative effects assessment that encompasses any impacts or effects determined as part of these documents should be conducted. Additional consideration to the number of aggregate operations in the vicinity should be included.	Not Addressed


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					<p>Given the submission of several supplemental assessments and technical memoranda, a consolidated cumulative effects assessment should be provided that incorporates any impacts or effects identified within these documents.</p> <p>Additional consideration should also be given to the number of aggregate operations in the surrounding area and the potential for overlapping or additive impacts, particularly with respect to groundwater drawdown and associated effects on the natural environment beyond the 120 m study area.</p>	
36	Natural Environment	General	Please include a new section between sections 7 and 8 that addresses whether the work will conform with the policies identified in section 2.	The Impact Assessment section of NER is focused on meeting the noted policy of Section 2 of the NER. The recommendations and mitigation and the scope of the full NER is presented in a manner to demonstrate compliance with the various policy.	Acknowledged.	Addressed
37	Natural Environment	Section 8: Rehabilitation/ Mitigation/ Monitoring	Section 8.1 includes a recommendation of the use of European larch and Norway spruce in the buffer plantings, these non-native species do not provide any ecological benefits and should be removed from the proposed planting list.	Trees will be planted along the Concession 2 Road frontage (east side of site). These two rows of trees will be planted in front of the berm required for noise attenuation during operations, to provide additional screening to the site. It is acknowledged that European Larch and Norway Spruce are non-native species, and as such native Tamarack and white/black spruce will be used in the buffer planting.	Acknowledged.	Addressed
38	Natural Environment	Section 8: Rehabilitation/ Mitigation/ Monitoring	Section 8.1 of the NHE requires additional details, which must be carried forward to the Site Plan Drawing no. 4. Per the Wellington County OP, the rehabilitation plan is to be prepared in detail by a recognized expert. Please include information on the plan identifying that it was prepared by a recognized expert. Additional information regarding the density of nodal plantings should also be included.	The Site Plan was prepared by a qualified expert and includes qualifications as prescribed by the Aggregate Resources Act. The Planting Plan was developed with input from terrestrial ecologists, and based on the approved rehabilitation plan prepared for the Lanci Pit. Nodal plantings should be planted at a density of 1600/ha (based on 2.5 m spacing), with a target density of 1200/ha after two years. This condition has been added to the Rehabilitation Plan.	Acknowledged.	Addressed
39	Natural Environment	Section 8: Rehabilitation/ Mitigation/ Monitoring	Section 8.2.1: Active season for birds is April 1-August 31 per Environment Canada guidelines. It should also be noted that while nesting is less common, active nests of migratory birds continue to be protected outside of the active season.	Acknowledged. The nesting dates provided in the NER correspond to the Environment Canada dates beyond which less than 5% of the nesting species are predicted to be nesting. With the 2022 Modernized Migratory Birds Regulation (MBR), nest protections for most species have moved from year-round to when nests have conservation value (i.e., when active). As per zone 2c, the nesting period for species associated with forest, open and wetland habitats, excluding 0% dates range between March 31 and August 27. To be conservative and cover this range, the site plan has been updated to include the active season for birds as April 1-August 31.	Acknowledged.	Addressed
40	Natural Environment	Section 8: Rehabilitation/ Mitigation/ Monitoring	Section 8.2.2: due to the presence of wildlife within the study area, and potential for wandering wildlife entering the extraction area, the entirety of the extraction area should be appropriately fenced to exclude wandering wildlife within the site prior to any site clearing	<p>Exclusionary fencing will be installed and incorporated into site plans, with adjustments made through "field fitting" as directed by an environmental specialist. These measures will be monitored on a quarterly basis and after high rainfall events. The fencing will serve multiple purposes, including:</p> <ul style="list-style-type: none"> <li>Erosion control</li> </ul>	Acknowledged.	Addressed

Num	Topic	Section	Aboud Comment (February 8, 2024)	WSP Response (October 22, 2025)	Aboud Response (March 13, 2026)	Status
			<p>and throughout extraction. The site limits should also be reviewed for wildlife within these limits prior to any site clearing.</p>	<ul style="list-style-type: none"> <li>• Demarcation of protected areas</li> <li>• Wildlife exclusion or directional guidance</li> </ul> <p>These components are typically required as part of the operational plan for any pit development.</p> <p>Prior to site clearing, pre-construction wildlife sweeps will be conducted to identify any species at risk. If such species are found, they will be safely relocated to suitable habitats under the guidance of qualified personnel.</p>		
41	Natural Environment	Section 8: Rehabilitation/ Mitigation/ Monitoring	<p>Section 8.3: A long term monitoring plan to review the site for potential impacts to vegetation and wildlife must also be implemented to ensure unexpected impacts are addressed over the course of extraction.</p> <p>This monitoring should include at minimum the following studies:</p> <ol style="list-style-type: none"> <li>1. Three season vegetation plot monitoring to assess for changes in vegetation communities, including floristic quality index and average wetland plant coefficients.</li> <li>2. Amphibian surveys to determine changes in populations due to changes in hydroperiod.</li> <li>3. Assessment of changes to the length of the hydroperiod of the adjacent wetlands and impacts to the vegetation communities.</li> <li>4. Fisheries assessments to monitor for impacts to redds as a result of changes in groundwater availability.</li> </ol>	<p>A water and ecological monitoring plan have been developed and included in the agency responses. The monitoring plan focuses on ground water levels and baseflow as well as wetland botanical monitoring and fish community monitoring.</p>	<p>The approach of monitoring groundwater levels and baseflow as a proxy for detecting change within the natural heritage features is not appropriate. While these parameters provide useful hydrologic information, and can help determine the causation of any potential changes observed, they do not directly measure the condition or response of the ecological receptors identified in the impact assessment. Direct monitoring of the ecological features is required to verify that impacts are not occurring and allow for timely detection of any changes and subsequent mitigation response.</p> <p>The ecological monitoring plan should be expanded to include quantitative monitoring of wetland vegetation communities (e.g., permanent vegetation plots, floristic quality assessment, and wetland indicator status), soil moisture conditions, amphibian populations, salmonid spawning activity (e.g., redd surveys), and watercourse temperature. Monitoring should be conducted across multiple seasons (spring, summer, and fall) to adequately capture seasonal variability and detect changes in ecological conditions over time.</p> <p>It is recommended that Brook Trout be used as the target species when determining monitoring thresholds and adaptive management triggers to ensure the monitoring plan is protective of the most sensitive species within the fish community.</p> <p>Pre-extraction baseline surveys should also be completed throughout the predicted groundwater impact area to establish existing conditions. In addition, clear trigger thresholds and associated adaptive management responses should be defined to ensure that mitigation measures can be implemented if monitoring indicates that adverse impacts are occurring. Monitoring should continue throughout the active extraction phase and extend for an appropriate</p>	Not Addressed

Num	Topic	Section	Aboud Comment (February 8, 2024)	WSP Response (October 22, 2025)	Aboud Response (March 13, 2026)	Status
					duration following site restoration to confirm that long-term ecological conditions remain stable.	
42	Natural Environment	Section 8: Rehabilitation/ Mitigation/ Monitoring	Results of the monitoring are to include an annual summary report outlining the results, changes from pre-extraction conditions, proposed thresholds to identify impacts are occurring, and adaptive management of unforeseen impacts.	See Response to Comment #41	See Response to Comment #41	Not Addressed
43	Natural Environment	Section 9: Summary and Recommendations	Updates to section 9 are required per the comments identified above.	Updates have been addressed here with supporting information. All key recommendations will be incorporated into the Site Plan which are legally binding documents that guide operation initiatives, protection, mitigation and compliance under the ARA.	Given the number of supplemental technical memoranda and assessments prepared since the original submission of the Natural Environment Report, these materials should be consolidated and resubmitted as part of a single comprehensive updated NER report that integrates all responses to comments from all submissions.  This would ensure that all findings are clearly incorporated and that potential effects are evaluated collectively within the overall impact assessment framework.	Not Addressed
44	Natural Environment	Section 9: Summary and Recommendations	As noted in the ToR comments, a pre, during, and post development comprehensive monitoring plan, which includes adaptive management and appropriate triggers for additional investigation is required.	The surface water and groundwater monitoring program is described in Section 8.6 of the Water Report and in the refined adaptive monitoring plan for the site (provided under separate cover). See Response to Comment #41	See Response to Comment #41	Not Addressed
45	Natural Environment	Figures	The location of proposed berms have not been included in any NH figures, construction equipment within the buffer and creation of berms is also considered development and should be included and considered in all aspects of the proposals impacts.	Acknowledged. This information has been incorporated into the updated site plan.	See Response to Comment #43.  Please include these updates to relevant figures as part of the resubmission.	Not Addressed
46	Natural Environment	Figures	Figure 2: the ELC boundary near ACC#2 is identified as wetland/meadow mix and is contiguous with the PSW limit, if this area is wetland, it should be included as part of the wetland limit per OWES and removed from within the extraction limit.	This area is separated from the PSW by a band of upland habitat. Further, the area is regularly cut for hay by the farmer and therefore does not meet the definition of a wetland per the OWES, as the plants do not reach maturity / fruiting. No changes required.	Acknowledged.	Addressed
47	Natural Environment	Figures	Figure 2: The ELC communities identified at the south western limit are wetland communities (SWM/SWC), their limits do not match the limits of the mapped PSW, wetland limits should be updated and integrated to match the limits of identified wetland communities.	The ELC communities SWM and SWC at the southwest limit of the Study Area are off-Site and therefore vegetation types are identified from the site edge. Figure 2 has been updated such that these two wetland communities now match the provincial mapping (Attachment 6).	Acknowledged.	Addressed
48	Natural Environment	Figures	Figure 4 does not include a legend for the numbers noted on the map. The legend included includes many items which are not present on the map.	Figure 4 is a figure produced by the Grand River Conservation Authority Wetland Mapping application that was placed into a branded template for the purposes of the report. The legend includes several data layers that were turned on to be visible, but that did not overlap the Site.	Acknowledged.	Addressed

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49	Natural Environment	Figures	An additional figure should be created that includes the area of the cumulative impact assessment, including the limits of changes to groundwater levels at the 6-year mark included in the water reports in comparison to natural heritage features within these limits.	See response to Comment #35.	See Response to Comment #35.  See Response to Comment #43.  Please include these updates to relevant figures as part of the resubmission.	Not Addressed
50	Natural Environment	Appendices	Appendix A: please include the communication with the County, Township, and GRCA regarding acceptance of the ToR.	Please see Attachment 5.	Confirmation should be provided that all reviewing parties of the Terms of Reference (TOR) have provided acceptance. This remains outstanding.	Not Addressed
51	Natural Environment	Appendices	Appendix B: please include the request for information sent to MECP by WSP, including any follow up communication.	Please see Attachment 4 with a copy of the request for information submitted to MECP. Please note that MECP responded referencing an email they provided for another project by the same client. A copy of this email correspondence has also been included in Attachment 4.	Acknowledged.	Addressed
52	Natural Environment	Appendices	Appendix D: please include the sources from the background review that identified the possible presence of the species listed in the SAR screening.	A comprehensive background review and SAR screening was completed for this project, which included a review of numerous resources, such as species occurrence databases, publicly available mapping, range maps, background reports and agency information requests. As such, a species may occur from multiple sources. A list of resources that were reviewed is provided in Section 4.1 of the NER.	Acknowledged.	Addressed
53	Natural Environment	Appendices	Appendix D: Blanding's turtle rationale only considers overwintering habitat, overland movement potential and nesting must also be considered for the site. Additionally, this species is ranked low potential, while other turtle species with similar habitat requirements have been listed as moderate.	Blanding's turtle is discussed in Section 5.6.5 of the NER. At the time of the assessment there were no occurrence records for Blanding's turtle within 9 km of the site identified during the background review. Subsequent to this, the MECP has provided information indicating that Blanding's Turtle sightings have been recorded approximately 2 km from the proposed extraction site. Although there were no observations during surveys, additional mitigation measures (exclusionary fencing) will be included into the updated site plan. The probability for Blanding's turtle to occur in the Study Area was assessed to be low. Conversely, there were occurrence records for both Painted Turtle and Snapping Turtle in the vicinity of the Study Area, resulting in a higher probability of occurrence. These species are more commonly observed at sites in Puslinch. It should be noted that there are no known overwintering habitat that would be preferred by turtles in license areas nor evidence of any nesting sites, including predates sites in the extraction area which is coincident with active agricultural lands.	Acknowledged. Please confirm whether this assessment remains unchanged following receipt of the additional MECP correspondence referenced in Comment #21.  Additionally, Impacts to suitable overwintering habitat outside of the extraction area require additional consideration, there are several ponds (screenshots below) on adjacent lands that could support turtle overwintering that overlap with the drawdown area of impact as well as the watercourse itself in the area of drawdown.	Not Addressed



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54	Natural Environment	Appendices	Please include an ELC data card for each community inventoried on site, including representative photos of each community.	Pertinent information relating to the ELC, including dominant species, maturity, snags and deadfall, and locations of any rare plant species, is presented in the NER. WSP will be pleased to answer any specific questions relating to any of the ELC communities.	See Response to Comment #84.	Not Addressed
55	Natural Environment	Appendices	Please include an appendix with a list of species identified during the background review and their sources.	Please refer to the response for comment #52 above.	Acknowledged.	Addressed
56	Natural Environment	ARA Site Plan Document – Aberfoyle South Pit Expansion drawings 1-5s – Drawing No. 3 of 5 Section L. Report Recommendations	Point a: include additional details on best management practises, or a citation to a specific document.	Reference will be included regarding relevant BMPs such as the MNR Bank Swallow Best Management Practices for the Protection, Creation and Maintenance of Bank Swallow Habitat in Ontario, (MNRF 2017)	Acknowledged.	Addressed
57	Natural Environment	ARA Site Plan Document – Aberfoyle South Pit Expansion drawings 1-5s – Drawing No. 3 of 5 Section L. Report Recommendations	Point a: BMP’s must include consideration for wandering wildlife and wildlife rescue due to entrapment within the construction/ESC area, and regular review of equipment on site for wildlife such as snakes or turtles.	A site-specific BMP with standard practices will be recommended to be prepared upon license approval. This will be Wildlife Encounter BMP, and include training, signage, encounter procedure, site (exclusionary fencing if applicable) and equipment inspection, etc. This has been added as a condition on the Site Plan.	Acknowledged.	Addressed
58	Natural Environment	ARA Site Plan Document – Aberfoyle South Pit Expansion drawings 1-5s – Drawing No. 3 of 5 Section L. Report Recommendations	Point a.ii: The active nesting season is April 1-August 31. Nest searching is not recommended in heavily vegetated areas, such as the unevaluated wetlands within the extraction area.	Clearing will be completed outside of the active season (April 1 – August 31) – notes have been updated on the site plans.  Should clearing be required during the nesting season, nest sweeps will be completed to ensure compliance with the MBCA.	Acknowledged.	Addressed
59	Natural Environment	ARA Site Plan Document – Aberfoyle South Pit Expansion drawings 1-5s – Drawing No. 3 of 5 Section L. Report Recommendations	Point b.i: The 30 m setback should not contain berms; this impact has not been properly addressed in the NHE or site plan documents.	Perimeter grading, are commonly implemented within 30-metre setbacks for aggregate applications in Ontario, particularly where current land use in the future setback area is agricultural or otherwise actively disturbed (such as at South Lake). The setback width is perimeter grading, serves as an ecological buffer that controls water, thus facilitating the management of water onsite and protecting the adjacent lands.	Acknowledged.	Addressed
60	Natural Environment	ARA Site Plan Document – Aberfoyle South Pit	Point b.ii: There should be ESC fencing erected around the entire site, not just at certain points.	See Response to Comment #40	Acknowledged.	Addressed

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		Expansion drawings 1-5s – Drawing No. 3 of 5 Section L. Report Recommendations	A more detailed ESC plan needs to be included. Please define “actively monitored and maintained”.	Where necessary, fencing has been incorporated into the site plans, and its function is both directional and exclusionary depending on site-specific conditions. This is not typically uniformly applied across the entire site because certain areas benefit from it more than others, while some locations may not warrant fencing due to topography, hydrology, or existing vegetation.  Regarding the request to define “actively monitored and maintained”: this refers to a structured inspection and maintenance protocols common to CBM aggregate operations.		
61	Natural Environment	ARA Site Plan Document – Aberfoyle South Pit Expansion drawings 1-5s – Drawing No. 3 of 5 Section L. Report Recommendations	Point b.vi: see comment 59.	See Response to Comment #59	Acknowledged.	Addressed
62	Natural Environment	ARA Site Plan Document – Aberfoyle South Pit Expansion drawings 1-5s – Drawing No. 3 of 5 Section L. Report Recommendations	Mitigation is not included for potential impacts to SAR/SWH	No specific mitigation measures to address SWH or SAR were provided in the NER. Rather, BMPs and mitigation measures for other significant natural heritage features were assessed to be sufficient to address potential indirect impacts to SWH/SAR.	Acknowledged. Please confirm whether additional mitigation is to be included following the response to Comment #9, Comment #23, and Comment #26.	Not Addressed
63	Natural Environment	ARA Site Plan Document – Aberfoyle South Pit Expansion drawings 1-5s – Drawing No. 3 of 5 Section L. Report Recommendations	Point c.i: Given the potential impacts to all the watercourses within the study area and within the vicinity of the site, the DFO RFR should include not only tributary 3, but also tributaries 1, 2, 4, and 5, as well as the entire stretch of Mill Creek running along the property boundary, and downstream of the site as far as the groundwater impacts will occur, as they will all be affected by changes to the water balance at the site.	Ongoing consultation with DFO is underway. They are reviewing the water reports as well as the supplementary technical memoranda, which include all Tributaries and Rivers.	Acknowledged.  Please confirm that all supplemental assessments and technical memoranda prepared to date that relate to impacts to fish habitat have been provided to DFO to support their review. Additionally, please confirm that details related to the proposed discharge associated with the tile drain flood mitigation have also been included as part of DFO’s review.	Not Addressed
64	Natural Environment	ARA Site Plan Document – Aberfoyle South Pit Expansion drawings 1-5s – Drawing No. 3 of 5 Section L. Report Recommendations	Point e.i: include full natural heritage monitoring plan as described in point 39 of this review or refer to the updated NER section.	Based on the results of the NER, monitoring of ecological features are focused on the wetland and fish habitat features. The monitoring programs have been detailed in the comment response documents prepared to address agency inquiries. The complementary wetland monitoring is presented in the additional PSW assessment provided.	See Response to Comment #41.	Not Addressed
65	Natural Environment	ARA Site Plan Document: Drawing 4 of 5 — rehabilitation plan	Note D1 (Tree Planting areas), noted within the drawing is not listed on the page. See section 8 comments of the report for additional direction regarding the rehabilitation plan.	Rehabilitation Plan has been updated	Acknowledged.	Addressed
66	Natural Environment	General	In conclusion, our review of the submitted report has determined that additional details are required in the form of an updated report prior to approval of the NER and the Site Plans. This additional information will include confirmation of approval of the Terms of Reference via inclusion of the correspondence between the municipalities, confirmation of the	Responses have been provided in a comment response matrix with supporting addenda and figures, as necessary.	See Response to Comment #43.	Not Addressed

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			completion of all required studies per an accepted Terms of Reference and the Pre-Consultation Peer Review, results of the breeding bird surveys, a list of wildlife species identified in the background review, discussion of the effects of the reduction of groundwater impacts on the watercourses on/adjacent to the site and their fish communities, and details of an adaptive mitigation and monitoring plan for the site			
67	Natural Environment	Supplemental Attachment 1: Table 2 (Weather Conditions and Staff Qualifications)	N/A	N/A	We acknowledge receipt of the supplemental attachment and have no further comments.  See Response to Comment #6.	Addressed
68	Natural Environment	Supplemental Attachment 1: Table 3 (ACC Data)	N/A	N/A	Several discrepancies between the NER and the Supplemental Amphibian Call Count Survey have been noted, with a higher number of species and greater call abundance recorded across the monitoring stations. Please confirm whether the conclusions presented in the report remain unchanged in light of these results.	Not Addressed
69	Natural Environment	Supplemental Attachment 1: Table 3 (ACC Data)	N/A	N/A	There are several assumptions made in the analysis of data that are not technically correct per the SWH criteria. While ‘wetland’ amphibian breeding habitat is typically >120m from a woodland, this is not a requirement for candidacy, and several of the amphibian stations could be considered both woodland and wetland candidate habitat and should be assessed under both types.  For example, the assessment for station 3 notes that the wetland must be >120m from a woodland to be considered candidate ‘wetland’ amphibian breeding SWH, however, this distance is not a requirement for candidacy and species present include a mix of wetland and woodland amphibian species. In addition, several surveys note that the habitat did not meet the abundance threshold, however, in past communication with MNR staff, they have noted that it is a cumulative total of individuals of all species, not an individual total per species.  Please confirm whether the conclusions presented in the report require revisions based on this.	Not Addressed
70	Natural Environment	Supplemental Attachment 1: Table 4 (BBS Breeding Evidence)	N/A	N/A	We acknowledge receipt of the supplemental attachment and have no further comments.	Addressed
71	Natural Environment	Supplemental Attachment 2: Fish Community Survey	N/A	N/A	Please provide additional information regarding the fish community sampling methodology, including the specific	Not Addressed

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					locations sampled within each watercourse, the length of reaches surveyed, and a summary of the sampling effort expended (e.g., electrofishing shocker seconds and catch per unit effort). This information is required to demonstrate that a sufficient level of sampling effort was undertaken to support the conclusions regarding species presence and absence.	
72	Natural Environment	Supplemental Attachment 2: Fish Community Survey	N/A	N/A	Additional justification and a more detailed description of habitat conditions for each tributary should be provided to support the conclusion that salmonids are not present within Tributaries #2, #3, and #5 where they were not captured during the survey. Given the connectivity of these watercourses to Mill Creek and the migratory nature of salmonids to access spawning habitats, it may not be appropriate to conclude absence based on a single sampling event. Supplemental assessments, such as salmonid redd surveys, should be conducted to confirm whether these tributaries may be utilized for spawning.	Not Addressed
73	Natural Environment	Supplemental Attachment 2: Fish Community Survey	N/A	N/A	Additional justification is required for the exclusion of Mill Creek from the fish community survey. While it is acknowledged that background data and species records are available for this watercourse, these surveys are often greater than five years old and may not reflect current conditions, and portions of Mill Creek adjacent to the site remain unsampled. Additionally, the impact assessment does not appear to consider Brook Trout as part of the Mill Creek fish community, despite available records documenting their presence upstream of the site. In the absence of recent site-specific sampling, the conservative approach would be to assume presence of Brook Trout and evaluate potential impacts accordingly. Supplemental redd surveys within Mill Creek are recommended to confirm potential spawning use.	Not Addressed
74	Natural Environment	Supplemental Attachment 3: HDF Assessment	N/A	N/A	Several HDF classifications appear to under-represent the hydrological and ecological function of the features based on the documented field observations and do not follow the criteria outlined in the <i>CVC/TRCA Evaluation, Classification, and Management of Headwater Drainage Features Guideline</i> . The classification and management recommendations should be revised or additional justification provided to support the original conclusions. Several considerations are provided below:  <u>Hydrology:</u> Standing water was observed during the summer dry-visit which is intended to document potential groundwater contribution at a time where the influence of precipitation is	Not Addressed

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					<p>not present. Per the CVC/TRCA guideline (Table 4), the presence of standing water during this period is indicative of groundwater discharge and would be considered “Important” function.</p> <p><u>Riparian:</u> HDF-1 has scrubland identified in the immediate vicinity of the feature and HDF-2 is considered part of a wetland community. Both of these riparian conditions would be considered “Important” function, per the CVC/TRCA guidelines (Table 5).</p> <p><u>Terrestrial Habitat:</u> For HDF-2, Table 7 of the CVC/TRCA guideline indicates that where the feature type is a wetland and there is documented breeding evidence of amphibians the terrestrial habitat would be considered “Important” function. The HDF assessment should be revised to consider the results of the amphibian call surveys conducted previously for the site, which has demonstrated breeding evidence at ACC#2 located at HDF-2.</p> <p><u>Modifiers:</u> The use of modifiers and professional discretion in refining the final management recommendation is appropriate in the context of this site due to the adjacent agricultural activity. With that said, features such as HDF-1 and HDF-2 are not actively cropped through and have riparian vegetation communities that are maintained and serve as a buffer from the agricultural activities and the extent to which modifiers have been used is not supported by the field observation and points discussed above.</p>	
75	Natural Environment	Supplemental Attachment 3: HDF Assessment	N/A	N/A	<p>Given the apparent groundwater discharge function of certain HDFs and their demonstrated contribution to downstream flows, the recommended management approach of “Maintain Recharge” is not considered sufficient in the case of HDF-1 and HDF-2. This management recommendation is typically applicable to features functioning primarily in infiltration; it does not adequately address features that contribute baseflow through groundwater upwelling. The assessment should include further discussion regarding how the proposed removal of these HDFs may influence downstream hydrology, including potential changes to baseflow contributions to the receiving tributaries and ultimately Mill Creek.</p>	Not Addressed

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					Additional justification should be provided to demonstrate how the hydrological function, flow contribution, and associated habitat values of these features will be maintained during and following extraction.	
76	Natural Environment	Supplemental Attachment 3: HDF Assessment	N/A	N/A	The potential removal of HDF-1 and HDF-2 may reduce groundwater contributions to Tributary #3 and Mill Creek, respectively. This effect should be evaluated cumulatively alongside the groundwater modelling results that predict localized reductions in baseflow. The assessment should clarify whether the potential loss of HDF contributions has been incorporated into the hydrologic modelling and broader cumulative effects assessment.	Not Addressed
77	Natural Environment	Supplemental Attachment 3: HDF Assessment	N/A	N/A	HDF-3 includes chains of wetland pockets and areas of standing water that has been previously demonstrated to support amphibian breeding activity. This suggests that HDF-3 may function as stepping-stone habitat and a movement corridor for amphibians across the agricultural landscape. This ecological function should be considered when determining the terrestrial habitat classification and overall feature ranking.  The observation of standing water within these wetland pockets should also be considered as this may demonstrate the influence of groundwater discharge and holds a higher hydrology value.	Not Addressed
78	Natural Environment	Supplemental Attachment 3: HDF Assessment	N/A	N/A	Additional details should be provided regarding the drainage pipe identified near HDF-2, including its purpose and whether it influences the hydrology or classification of the feature.	Not Addressed
79	Natural Environment	Supplemental Attachment 3: HDF Assessment	N/A	N/A	Please include copies of the HDF field data sheets for the remaining features assessed.	Not Addressed
80	Natural Environment	Supplemental Attachment 4: MECP Correspondence	N/A	N/A	We acknowledge receipt of the supplemental attachment and have no further comments.	Addressed
81	Natural Environment	Supplemental Attachment 5: Terms of Reference Concordance Cross-check	N/A	N/A	See Response to Comment #50	Not Addressed
82	Natural Environment	Supplemental Attachment 6: Updated Figure 2	N/A	N/A	We acknowledge receipt of the supplemental attachment and have no further comments.	Addressed
83	Natural Environment	Supplemental Attachment 7: Assessment of Potential Impacts to Provincially Significant Wetlands	N/A	N/A	The supplemental wetland assessment is largely qualitative and introduces uncertainty regarding the magnitude of potential impacts to the PSW complex. Several zones are expected to experience hydrologic changes, yet the assessment appears to understate how these changes may	Not Addressed

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					result in negative ecological effects. Additional quantitative or detailed analysis is required.	
84	Natural Environment	Supplemental Attachment 7: Assessment of Potential Impacts to Provincially Significant Wetlands	N/A	N/A	The presentation of plant community data is insufficient to support independent review. Species composition and community structure are not clearly identified to specific wetland communities and an assessment of relative plant community sensitivities based on CC values and obligate wetland species has not been demonstrated. This level of assessment should be performed to support the impact assessment.	Not Addressed
85	Natural Environment	Supplemental Attachment 7: Assessment of Potential Impacts to Provincially Significant Wetlands	N/A	N/A	The assessment indicates that reductions in wetland water surplus may reduce drainage to downstream watercourses. It is unclear whether these changes have been incorporated into the broader fisheries and hydrologic impact assessments. Clarification is required to confirm whether potential reductions in wetland outflow have been considered in downstream baseflow modelling and cumulative effects evaluations.	Not Addressed
86	Natural Environment	Supplemental Attachment 7: Assessment of Potential Impacts to Provincially Significant Wetlands	N/A	N/A	The assessment primarily evaluates the potential for wetland vegetation to persist under primarily precipitation inputs, but does not adequately address potential impacts to other ecological functions, including vernal pools and amphibian breeding habitat that is supported by the shallow groundwater table. Impacts resulting to these ecological functions should also be considered.	Not Addressed
87	Natural Environment	Supplemental Attachment 7: Assessment of Potential Impacts to Provincially Significant Wetlands	N/A	N/A	<p>The assessment assumes that organic-rich wetland soils will maintain adequate water retention under altered hydrologic conditions. This does not sufficiently account for the potential impacts of inevitable seasonal drought, which may irreversibly alter soil structure and reduce water-holding capacity under conditions where the groundwater table has been lowered.</p> <p>The role of the current shallow groundwater table in sustaining soil moisture during periods of limited precipitation should be evaluated.</p>	Not Addressed



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March 10, 2026

Township of Puslinch,  
7404 Wellington Road 34,  
Puslinch ON N0B 2J0

Attention: Monika Farmcombe, Development and Legislative Coordinator

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RE: Landscape Architecture Peer Review of CBM Aberfoyle South Lake Pit Expansion  
Zoning By-law Application,  
Site Address: 6947 Concession Road 2, Puslinch, ON  
Our File: LA 1092-26

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Dear Monika,

Landmark Environmental Group Ltd (LEGroup) is in receipt of your email of request of January 23, 2026 for peer review comments regarding a Zoning By-law Amendment application for a proposed Aggregate Pit Expansion (extraction) application by CBM Aggregates, located at 6947 Concession Road 2, Puslinch Township. CBM has applied for a Class A License through the Aggregate Resources Act and refers to the application as the Aberfoyle South Lake Pit.

We understand that the extraction area under application is approximately 27.5 ha (67 acres) within the licensed area of 44 ha (110 acres) of the subject site. We also understand that the pit extraction will take place both above and below the ground water table. The Operation Plan includes four (4) phases as illustrated on the Aberfoyle South Lake Pit Plans (ARA Site Plans) prepared by CBM Aggregates and MHBC.

Our services will include review of the landscape features to be installed for progressive rehabilitation of the pit, including buffer/screening, tree shrub replacement species, size and whether the plant material specified are native and indigenous, given its proximity to environmentally sensitive woodlands and wetlands.

We will also comment on the Visual Impact Assessment Report, prepared by MHBC to review sightlines into the extraction area between adjacent residents and public roads adjacent to the site and comment on the proposed mitigation/buffering to reduce the visual impact.

Documents received and reviewed for preparation of our review by Landmark Environmental Group (LEGroup) as part of Mary's this submission:

- Planning Report & Aggregate Resources Act (ARA) Summary Statement by CBM Aggregates dated November 2023;
- ARA Plans (Dwg 1-5) by CBN Aggregates, dated November, 2023;
- Noise Impact Assessment by WSP Canada, dated November 2023;
- Natural Environmental Report by WSP Canada, dated November 2023;
- CBM Aggregates Proposed Aberfoyle South Pit Expansion by MHBC, dated November 29, 2023;
- Visual Impact Assessment by MHBC dated March 27, 2024;
- Hydrological/Ecological Monitoring Plan-CBM Aberfoyle South Lake Pit by WSP Canada, dated October 21, 2025;
- Stovel and Associates Inc. (SAI) Review Comments by WSP Canada, dated October 22, 2025;
- Aboud and Associates Inc./Township Comments Review by WSP Canada, dated October 22, 2025;
- Headwater Drainage Feature Assessment-CBM Aberfoyle South Lake Pit by WSP Canada, dated October 22, 2025;
- Valcoustics Peer Review Responses by WSP Canada, dated October 31, 2025;
- ARA Plans w. Agency & Public Redline Comments (Dwg 1-5) by CBN Aggregates, dated November 2025;
- MHBC Response to County/Township Comments on Aberfoyle South Lake Pit Application, dated November 26, 2025;
- Response to Township/County Comments for CBM Aberfoyle South Lake Pit by MHBC, dated December 4, 2025;

### Technical comments

The following are the peer reviewer's observations and comments on the proposed landscape features to be installed for progressive rehabilitation of the pit treatment at the subject site and review of the Visual Impact Assessment Report:

Num ber	Topic	Section	LEGroup Comment
1	ARA Plans November 2025	General	As part of the Aberfoyle Lake Pit Rehabilitation Plan that has been submitted, we note that a dedicated Landscape Plan and Details has not been provided. Pls submit Landscape Plan/Details for review and as set out in comments below.
2	ARA Plans November 2025	Drawing 1 of 5 Existing Features Plan	No Comment

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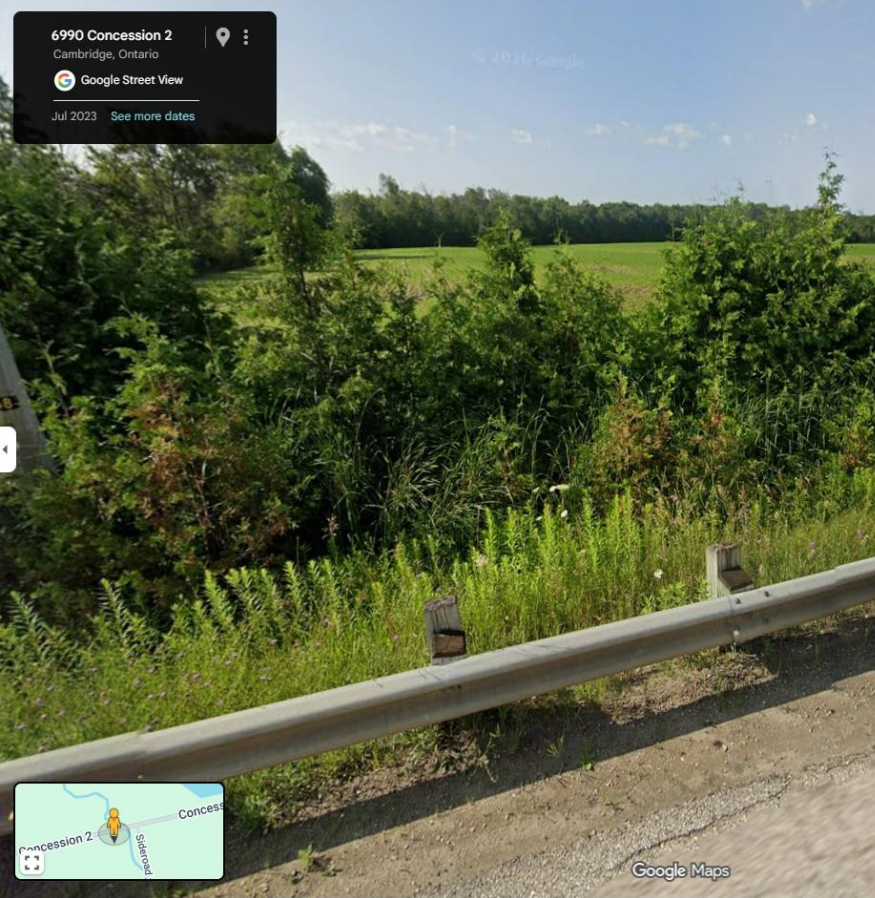
#606-55 Cedar Pointe Drive, Barrie, Ontario L4N 5R7 •Office: 705.796.1122 [www.LEGroupLtd.com](http://www.LEGroupLtd.com)

Number	Topic	Section	LEGroup Comment
3	ARA Plans November 2025	Drawing 2 of 5 Operational Plan	<ul style="list-style-type: none"> <li>○ Show native species, height and calipre sizes, planting density, quantity, layout of plant material in naturalized configuration on Optional Storage Berms (Planting Plan, Plant List, etc)</li> <li>○ Provide the buffer planting design on the Landscape Plan using native conifer, 1.6m height trees along the Acoustic 'North Berm' in a naturalized configuration to demonstrate effective screening that meet the intent of the Acoustic Report;</li> <li>○ Provide approved planting details for trees, shrubs, ground cover;</li> <li>○ Provide Typical Berm Detail enlargement on a Landscape Detail page;</li> <li>○ Revise Optional Storage Berm on the east side of the Entrance/Exit to Concession Road #2, to provide visual screening for Phase 4 Plan.</li> </ul>
4	ARA Plans November 2025	Drawing 3 of 5 Operational Notes	<ul style="list-style-type: none"> <li>○ F4-Seed mix stated has Kentucky Bluegrass seed in mix, not considered native. Pls consider another mix such as OSC 8225 Native Slope and Hillside or approved equal, applied by hydroseed slurry method;</li> <li>○ F7-Add Operational Note F regarding tree planting along Concession 2 berm on the Landscape Plan, with an appropriate density of planting;</li> <li>○ L2a) ii) Provide similar notation on the Landscape Plan regarding the Migratory Birds Convention Act and dates to avoid removal;</li> <li>○ L2e) v) Provide for a monitoring of plant material installed on the 'North Berm' for guarantee and warrantee purposes. Provide note on the Landscape Plan advising the same;</li> <li>○ L8 Visual Impact Assessment Report-see No. 7 below.;</li> </ul>
5	ARA Plans November 2025	Drawing 4 of 5 Rehabilitation Plan	<ul style="list-style-type: none"> <li>○ D1a)c) Proposed vegetation for the Nodal Planting Detail requires a wide variety of native plant material, labelled planting plan/plant list, installation details, approximate scaling and dimensioned nodal separation of plantings;</li> <li>○ D1d) recommends a 1,200 trees per/ha target density to be shown on the Landscape Plan and 70% of the planted species as coniferous. Norway Spruce (<i>Picea abies</i>) is non-native, drought intolerant and should not be specified for replanting at this site;</li> <li>○ D2c) Provide a scaled Nodal Planting Detail such that installers can verify the spacing needed between plantings within the node and distance between nodal areas;</li> <li>○ D3 Provide details on the types of native non-invasive ground covers;</li> <li>○ Wetland Area Detail-provide native emergent herbaceous vegetation in accordance with the Detail;</li> <li>○ Shoreline Area Detail-Consideration of supply and install emergent planting on the Landscape Plan/Details/Plant List, as shown in the Shoreline Area Detail, enhancing pond for fish and amphibians.</li> </ul>
6	ARA Plans November 2025	Drawing 5 of 5 Cross Sections Plan	<ul style="list-style-type: none"> <li>○ Provide a schematic detail, showing the Progressive Rehabilitation Plan sequence for a typical Phase.</li> </ul>
7	Visual Impact Assessment Report	Sections 1.0, 2.0, 3.0, 4.0, 5.0 & 6.0	<ul style="list-style-type: none"> <li>○ 3.0 Visual assessment completed by MHBC during leaf-off condition to inventory/analysis of visual and landscape character of the subject site and identification of areas of visual impact;</li> <li>○ The Visual Impact Assessment included the Identification of public views and adjacent residence views that will impact views due to the extraction activities;</li> <li>○ 4.0 Views into the site were described in the Report, due to the partially open nature of the frontage of the subject site;</li> <li>○ 4.3 Visual impacts took into account only views of adjacent residence and private driveways and not from all possible public views along Concession Road 2;</li> <li>○ Mitigation measures to be considered include berm and native coniferous tree planting and ground cover, where required;</li> </ul>

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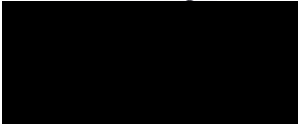
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Number	Topic	Section	LEGroup Comment
			<ul style="list-style-type: none"> <li>○ Visual characterization appears to be slight elevated at Concession 2 but otherwise, with generally open views from the Concession to the proposed extraction areas;</li> <li>○ 5.1 no photos were taken at the Concession 2/Sideroad 20 South just west of the intersection, (see Google Streetmap photo below) that shows leaf-on visual from Concession Rd 2 (where there is no residence driveways) toward the subject site, which shows an open visual from the roads. This location is close to the operational entrance, which shows an Optional Storage Berm. It is recommended that this Optional Storage Berm be revised to a 4.0m Acoustic Berm with planting on the Landscape Plans. This location is the extraction at Phase 4 and would be closest to the Concession 2;</li> </ul>  <ul style="list-style-type: none"> <li>○ The Report concludes that although there is high to medium potential views to the extraction site, (mostly view potential from driveways at residences adjacent to the site), from the residences, there is an overall low visual impact;</li> <li>○ Report should provide a scaled cross-section of Concession 2, berm and remediation planting of the proposed Landscape Plan for review to visually demonstrate extent of mitigation.</li> </ul>
8	MHBC Response to County/Township comments	SAI ARA Site Plan Comment #9	<ul style="list-style-type: none"> <li>○ 9. Agree with comments that a schematics and vegetation plan that visually buffers and provides aesthetic appeal to the entrance area could be considered which can be implemented into the Site Plan/Landscape Plan to the County's and Township's satisfaction;</li> </ul>

If there are any additional queries regarding our comments, please feel free to contact our office.

Regards,



Jim Hosick MSc(Pl), OALA, RPP  
Principal-Landscape Architect  
ISA Certified Arborist ON-1098A  
Registered Professional Forester #2673 (Provisional)  
Registered Consulting Arborist (RCA) #783  
**Landmark Environmental Group Ltd.**



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Phone: (519) 826-0099 Fax: (519) 826-9099

Hydrogeological Assessment

Geochemistry

Phase I / II ESA

Regional Flow Studies

Contaminant Investigations

OLT Hearings

Water Quality Sampling

Groundwater & Surface Water  
Monitoring

Groundwater Protection  
Studies

Groundwater Modelling

Groundwater Mapping

Permits to Take Water

Environmental Compliance  
Approvals

Designated Substance Surveys

Our File: 2340

March 3, 2026

Township of Puslinch  
7404 Wellington Road 34  
Puslinch, Ontario N0B 2J0

Attention: Monika Farmcombe  
Development and Legislative Coordinator

**Re: Review of 3<sup>rd</sup> Submission  
CBM Aberfoyle South Expansion, Puslinch, Ontario**

Dear Monika,

We continue to have several broad issues with the information provided. Our issues remain as originally stated in italics and we have updated our comments immediately following.

#### **Silt Deposition at Aberfoyle Main Pit (South of Hwy 401)**

*The proposed operations include aggregate processing at the McNally Pit (License 5497) with deposition of fine-grained material possibly into the Aberfoyle Main Pit (5520). The area designated for silt deposition in the Aberfoyle Main pit also is used for deposition of silt from the Neubauer and Lanci Expansion. CBM has a history of depositing silt in areas not designated for silt ponds at this location. A detailed analysis of ongoing and future sediment deposition needs must be prepared, and the appropriate areas designated for sediment disposal. Potential hydrogeological and ecological impact assessments for the areas designated for silt disposal below the water table must be made, verification monitoring undertaken and mitigation measures identified unless deposition is done in a hydrologically benign manners, such as creating an island within an existing body of water.*

We note that attachment #1 was prepared in January 2024 and this the first time it has been introduced to Harden Environmental. We look forward to evaluating this report along with any major site plan amendment required for the McNally Pit to allow for the proposed changes.

---

## **Cumulative Impact of Multiple Aggregate Operations and Major Groundwater Abstractions**

*A cumulative impact assessment of ongoing aggregate extractive activities in this area of intensive aggregate operations has not been prepared or presented. A cumulative impact assessment including all groundwater abstractions from Permitted water taking, aggregate extraction from below-the-water-table and deposition of sediment below the water table must be included. The cumulative impact assessment must also include a detailed water balance of the cumulative impact of increased evaporation in this area from converting farmland to open bodies of water. Mill Creek should not be assumed to be a hydrologic boundary to the effects of below water table extraction, particularly when up to four metres of drawdown are being predicted.*

Considering the proposed Safarik Pit has already prepared a groundwater model to the east of Mill Creek and the Aberfoyle South Pit model includes areas north and west of Mill Creek, we recommend that the models be combined to allow for a wholistic look at below water table extraction in this area. We recommend that the model boundaries be extended southward to where Fletcher and Spencer Creek emerge along the base of the Galt Moraine.

### **Localized Impact to Private Property**

*The proposed pit is surrounded by private property as shown on Figure 1. It is clear throughout the reporting that there will be impacts on both groundwater movement and groundwater elevations beyond the applicant's property lines. For example, all groundwater movement from the CBM property will cease between the proposed lake and Mill Creek along a 1600 m stretch of Mill Creek as shown in the particle tracking exercise. Groundwater levels beneath properties north and south of the CBM owned lands will decrease (east half of site) and groundwater levels beneath properties south and west of the CBM lands will increase (west half of site). There is also the potential for annual seasonal overland flow from the proposed lake onto private lands. The concerns of the private landowners must be addressed. A significant portion of both Mill Creek and Tributary 3 that could be impacted are on private property. To our knowledge no assessment has been made on these private lands.*

The proposed drain along the west side of the pit may improve the flooding in the neighbouring property, however, this needs verification monitoring. This is also a permanent solution requiring perpetual maintenance. Additional water will be flowing down Tributary #3 from the drain and impacts will have to be assessed both ecologically and engineering (e.g. culvert sizes downstream). There will be a permanent increase in water levels on private property between the proposed pit and Mill Creek (Zones 3 and 4 of PSW mapping). There will be permanent decreases in water levels north of Concession II Road in PSW zones 1 and 5 and between. We rely on the Township's ecology consultants to confirm assess the potential impact on these private properties.

### **Direct Impacts to Mill Creek Within the Area of Influence of the Pit**

*There is a significant reach of Mill Creek that will either have reduced or eliminated groundwater discharge from the west and or north shore because of the proposed below water table mining. South and west of where Mill Creek passes beneath Concession 2 Road, approximately 1600 metres of shoreline will have between 92% and 100% of natural groundwater discharge diverted from Mill Creek to the proposed lake. This area of Mill Creek is an important fishery as we have learned through the work commissioned by the Department of Fisheries and Oceans and work done for the Grand River Conservation Authority. The direct impact of this groundwater flow reduction to Mill Creek has not been adequately described, other than in a general way calculated as a percentage of total upstream baseflow reduction.*

We are not satisfied with the Attachment #3 as this only addresses the cumulative change in baseflow downstream of the proposed pit. Groundwater flow to Mill Creek through PSW Zones 1 and 2 will cease. This is not quantified in the reports.

### **Impacts to the Mill Creek Puslinch Provincially Significant Wetland**

*The reporting provided in Appendix G, Groundwater Model of the Water Report clearly identifies areas where there will be both temporary and permanent groundwater level reductions and groundwater level increases. These extensive areas are not identified in the Natural Heritage Report assessment. There are three main areas where the Natural Heritage Report hydrological assumptions do not correlate to the findings of the Groundwater Model.*

- 1) The Natural Heritage report states that there will be no groundwater level impact beyond 120 m whereas the Groundwater Model indicates impacts occurring at a distance greater than 720 m.*
- 2) The Natural Heritage report states that there will be up to 489 mm/year of additional groundwater discharge to the Mill Creek Puslinch Provincially Significant Wetland south of the proposed lake whereas the model shows that the PSW in Zone 2 will have a significant decrease in groundwater discharge. This is the same area that groundwater flow will be eliminated.*
- 3) The Natural Heritage report states that that the rise in water levels in the southwest area will not change water availability to the wetland. The groundwater model predicts a rise of up to 0.9 m in the southwest corner of the site significantly reducing the thickness of the unsaturated zone and greatly increasing the volume of groundwater discharge. There will be a significant increase in water availability in this area that has not been addressed. The final estimated lake level of 302 m AMSL does not represent the highest possible seasonal water level. With ground surface elevations of 302 m AMSL and no mitigation measures shown on the site*

*plans, the lake will overflow every year resulting in excess surface flow onto the adjacent private lands.*

We are relying Aboud and Associates to comment fully on the wetland impacts. We have created Table 1 based on information provided that was provided to us and this summarizes changes in total hydrological support as well as just groundwater support.

### **Impacts to On-Site Tributary 3**

*The surface water catchment area for Tributary 3 will be reduced. There will also be a permanent decline in groundwater levels beneath Tributary 3 leading to a reduction in baseflow. It is estimated that there will be a permanent 52% reduction in baseflow to Tributary 3. A referral to the DFO has been made and we recommend that our detailed comments and those of Aboud and Associates are also sent to the DFO. The groundwater model only simulates a steady state solution calibrated to, presumably, an average condition and drought conditions will result in even lower levels of the water table adjacent to and beneath Tributary 3. It is known that the flow in Tributary 3 varies considerably seasonally, but generally has baseflow throughout the year. The flow in Tributary 3 should be evaluated in a holistic manner including seasonal surface water and groundwater inputs in order to assess long term impacts.*

We have made Aboud and Associates aware of the potential changes in hydrological support to Tributary #3 which includes less groundwater discharge in the upper reaches near to Concession Road II, permanent discharge of water from the drain, and in general more water in downstream reaches.

### **Flood Control**

*The potential for flood control will be reduced at the site because of the creation of a large single pond. The pond will allow for instantaneous transfer of hydraulic potential from upstream end of the site to downstream edge. The proposed lake level (302 m AMSL) at the downstream edge will already be very close to, if not above the original ground surface. The site plans show a wetland at 301 m AMSL in very close proximity to the proposed lake in the southwest area. The groundwater model is calibrated to an average condition, not a high level or low-level condition. Therefore, assuming similar fluctuations in the pond level as observed at other nearby pit ponds, the water level in the spring of the year, could be 0.5 to 0.75 higher and overflow from the lake will be an annual event under normal conditions, let alone flood conditions. This has implications for adjacent wetland hydrology and private properties.*

We refer flood control to GEI Consultants to comment.

## **Groundwater Model**

*There are numerous concerns with the applicability, accuracy and total reliance upon results of the groundwater model as indicated in the following section of this report.*

*For these reasons, it is our opinion that the information provided is not sufficient to be accepted for a complete application.*

*We have the following specific comments on the technical reports. Given the integration of the natural heritage discipline and hydrogeology, we have provided comments on the natural heritage report where hydrogeology is mentioned.*

Our detailed comments are found in the attached response table. It is our recommendation that CBM take the opportunity to create one model for the Aberfoyle South Lake Pit and the Safarik Pit to evaluate cumulative hydrological impacts from all extractive operations along Concession 2 Road.

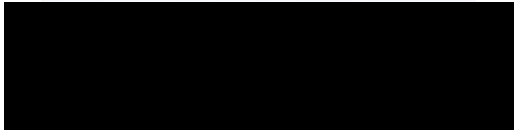
## **Closure**

We have attached our detailed comments in table form and will provide an excel spreadsheet with the comments upon request.

We appreciate the opportunity to provide these comments. Other comments may arise as additional information about the site is provided. Should you have any questions or concerns, please do not hesitate to contact the undersigned.

Respectfully Submitted,

Harden Environmental Services Ltd.



Stan Denhoed, M.Sc., P.Eng.  
Senior Hydrogeologist  
(519) 826-0099  
[sdenhoed@hardenv.com](mailto:sdenhoed@hardenv.com)

Encl:  
Figures 1 to 3  
Table 1  
Comment Table

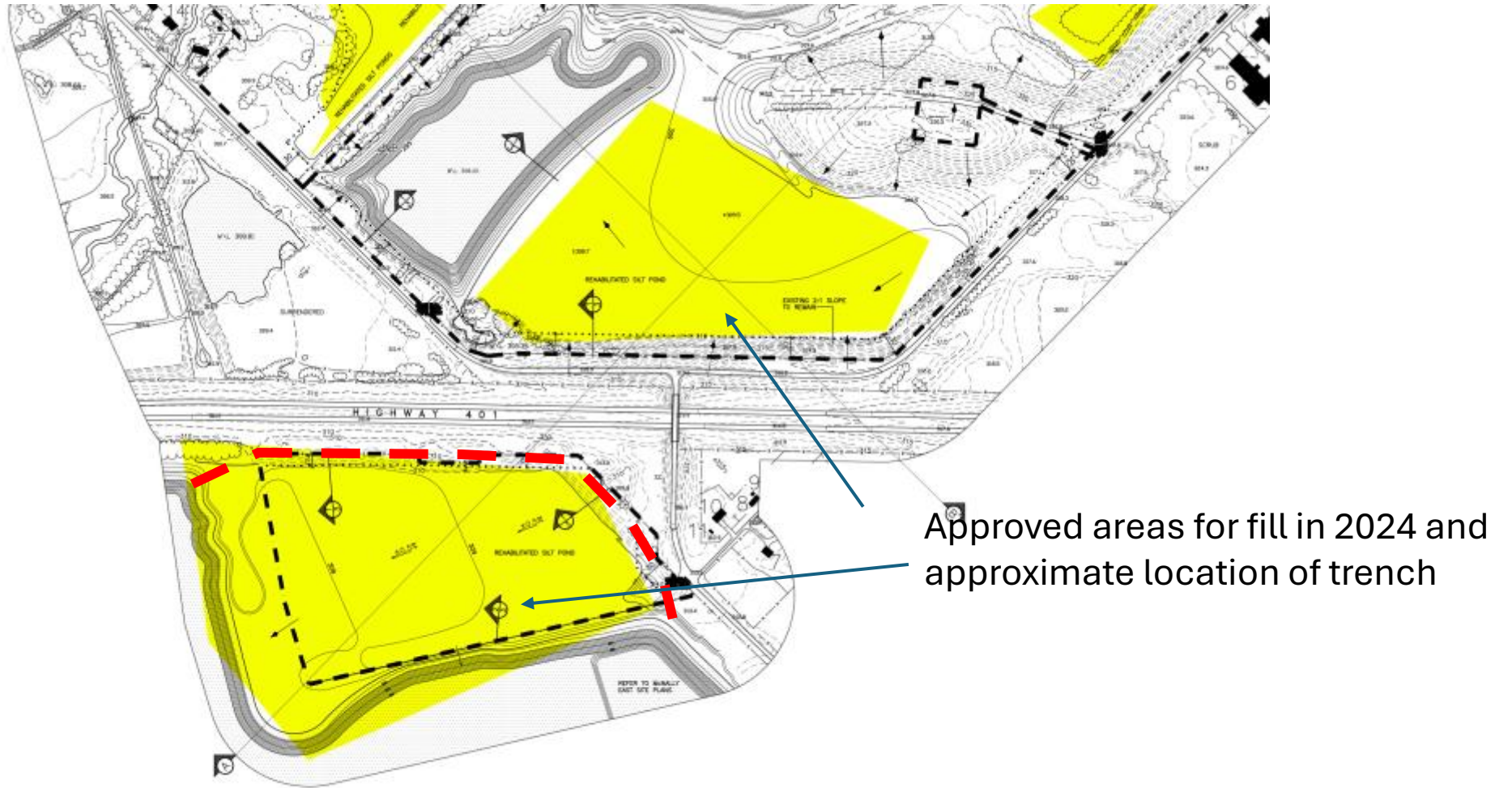
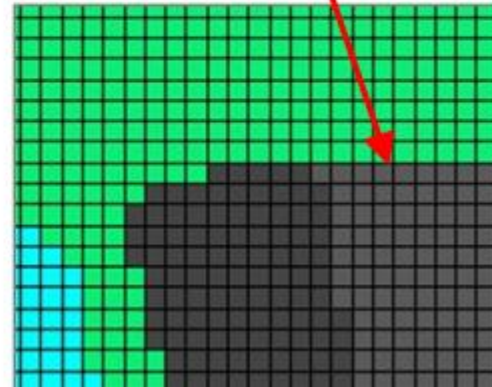


Figure 1



Figure 2

McNally Pond  
Silt Zones



Source:

## Potential Effects of Silt Deposition in the McNally Pond on Mill Creek Baseflow

*CBM McNally Pit - Aberfoyle Operations*

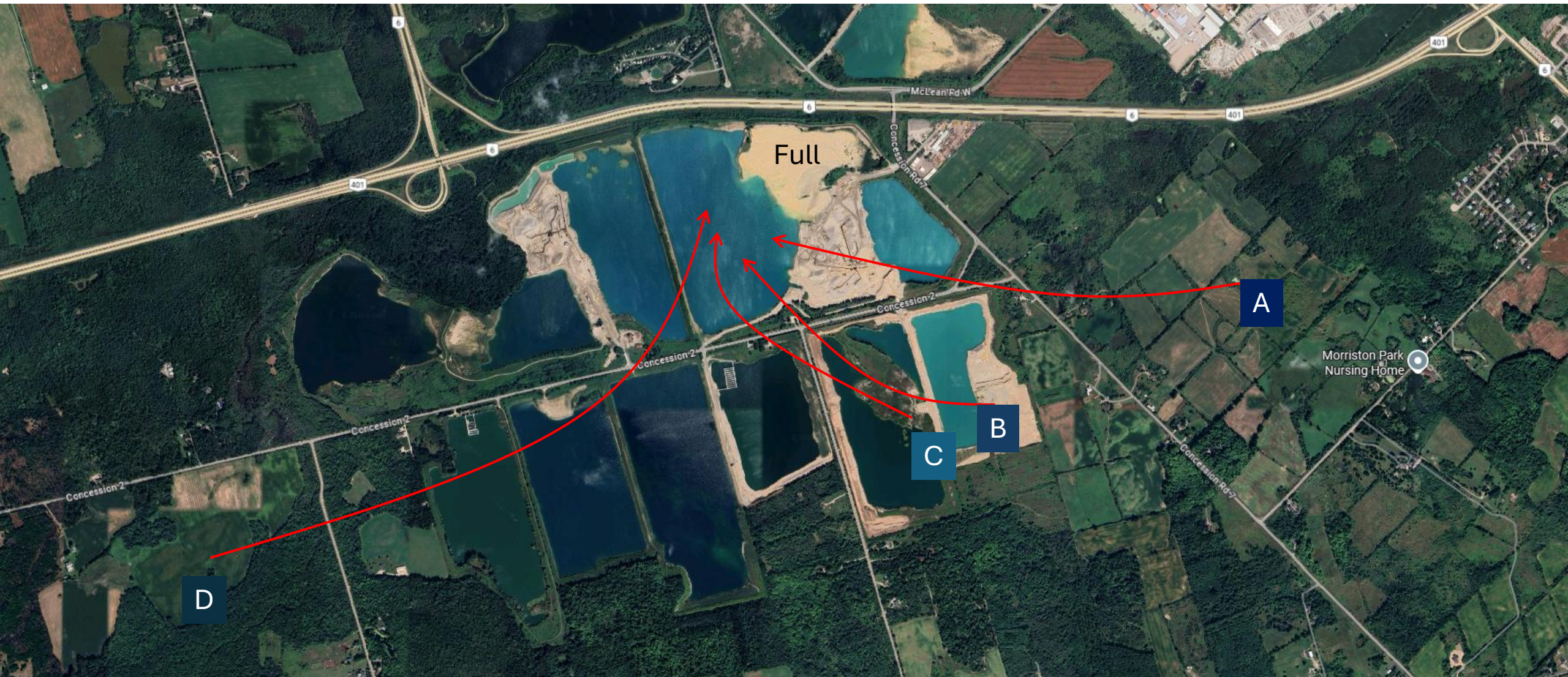


Figure 3

Zone	Pre Pit Gw Discharge (mm/year)	Pre Pit Surplus (mm/year)	Pre Pit Total Input (mm/year)	Post Pit GW Discharge (mm/year)	Post Pit Surplus (mm/year)	Post Pit Total (mm/year)	% Change in Groundwater Discharge Pre to Post	% Change in Total Contribution Pre to Post
1	164	276	440	65	276	341	-60	-23
2	266	276	542	155	276	431	-42	-20
3	142	276	418	311	276	587	119	40
4	413	276	689	671	276	947	62	37
5	174	276	450	0	276	276	-100	-39
6	768	276	1044	885	276	1161	15	11
7	816	276	1092	1326	276	1602	63	47
	a	b	a + b	c	b	c + b	$(c - a) / c * 100$	$(c + b) / (a + b) * 100$

a Source October 21, 2025 #4 Supplemental

b Source: Table 15 Water Report November 2023- Forested Swamp

c Source October 21, 2025 #4 Supplemental

This analysis does not include runoff entering the wetland from adjacent lands. Where no extraction is occurring, this will not change. Where extraction is occurring, any runoff from the extraction area will cease. This may affect zones 2,3,5 and 6 which have lands adjacent to the pit.

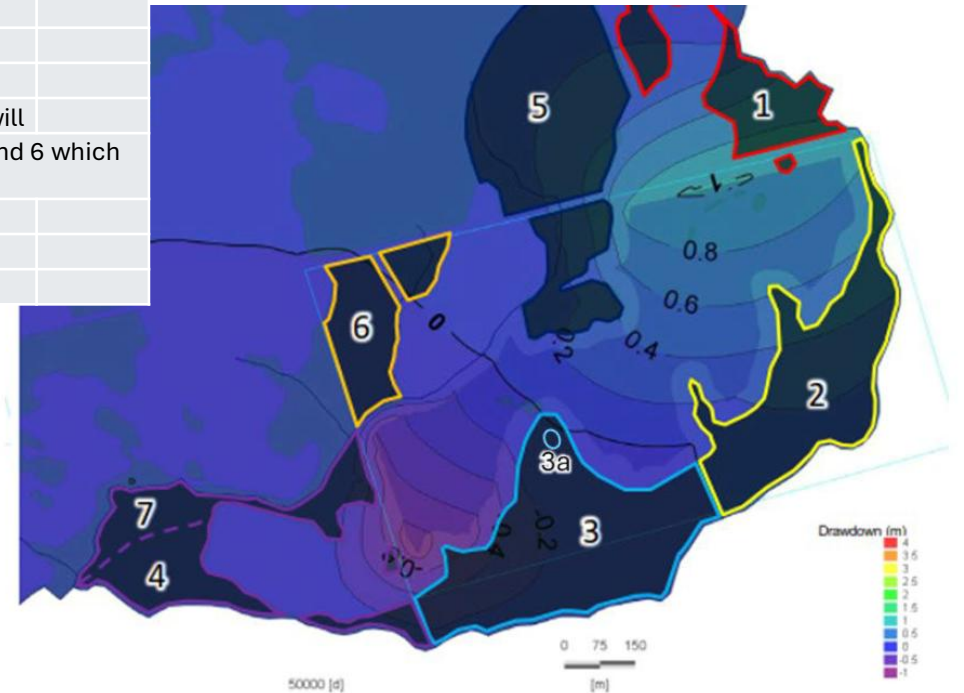


Table 1

Comment	Response March 2026	Issue
2	We disagree. This site, and other aggregate extractions adjacent to Mill Creek represent the greatest potential hydrologic impact to Mill Creek. All other takings from deeper aquifers (including that of the former Blue Triton Well, the increased taking in the Cambridge East Wells and increased taking by the City of Guelph) are farther away, do not take directly from the water table aquifer and yet are also shown to have an indirect impact to Mill Creek. The creek is shown time and time again to have a healthy population of brook and brown trout, two species sensitive to water quality and quantity. This is particularly true for the reach of the creek adjacent to this site, upgradient of this site (in the halo of the area of influence) and downgradient of this site. The Township is presently in discussions with Wellington County Source Water Protection to convene a water resources group to discuss the overall cumulative impact to Mill Creek from all sources. It is imperative that we understand where the proposed impact to Mill Creek by this extraction fits into that larger cumulative picture.	Cumulative Impact
33	We disagree. This site, and other aggregate extractions adjacent to Mill Creek represent the greatest potential hydrologic impact to Mill Creek. All other takings from deeper aquifers (including that of the former Blue Triton Well, the increased taking in the Cambridge East Wells and increased taking by the City of Guelph) are farther away, do not take directly from the water table aquifer and yet are also shown to have an indirect impact to Mill Creek. The creek is shown time and time again to have a healthy population of brook and brown trout, two species sensitive to water quality and quantity. This is particularly true for the reach of the creek adjacent to this site, upgradient of this site (in the halo of the area of influence) and downgradient of this site. The Township is presently in discussions with Wellington County Source Water Protection to convene a water resources group to discuss the overall cumulative impact to Mill Creek from all sources. It is imperative that we understand where the proposed impact to Mill Creek by this extraction fits into that larger cumulative picture.	Cumulative Impact
52	We are of the opinion that a cumulative impact assessment is necessary to address the multiple below water table extractive operations, the multiple permits to take water in the Aberfoyle area and those of the Region of Waterloo and The City of Guelph. A model representing the south side of Mill Creek was presented in support of the Safarik Pit application. A model for the infilling of the McNally pit was presented in Attachment 1 of this report. WSP has many of the elements required to wholistically look at this area. This pit alone will have permanent local impacts to groundwater flow to Mill Creek let alone during active extraction.	Cumulative Impact
64	See response to Comment 2.	Cumulative Impact
7	We defer to GEI for their input on the flooding issue and defer to GEI to comment.	Flooding
14	We understand that berms will be used to contain flood waters.	Flooding
17	We understand that a sub drain will be used to mitigate flooding of neighbours property. Verification monitoring is necessary. What effect does drain have on proposed final lake level?	Flooding
25	We defer to GEI for their input on the flooding issue.	Flooding
36	We will defer to GEI regarding flood mitigation measures.	Flooding
62	We understand berms will be used to address flooding issue and the drain will address underflow from the lake to the neighbouring property. We defer to GEI on this matter.	Flooding
88	We defer to GEI for discussion on flooding matters.	Flooding
95	For discussion with GEI regarding flood control measures.	Flooding
3	There are three areas of concern in relation to water level changes and adjacent private properties. <b>Northeast</b> There is up to a one metre permanent water level change predicted for the northeastern area of the site. This water level change extends off site beneath the neighbouring property to the north. Attachment #4 and our personal observations shows that some of this property is inundated because of beaver dams on Mill Creek. The groundwater model, used to determine off-site water level changes, is a) recognized to be conservative by using a Drain function for Mill Creek (one way groundwater flow to Mill Creek) and b) recognized as not being able to simulate all of the hydrological processes. Therefore as water levels decline in this area, firstly water held in storage will decline followed by decreased runoff as this will be used to compensate for unsaturated soils and thirdly, reversal of groundwater flow from Mill Creek to the wetland area. Perhaps, all of these processes occur simultaneously. All of this complicated by seasonal flooding and beaver activity. Our comment is that the predicted impact occurs on private property north of 2nd Concession Road. This impact was not recognized by the Natural Heritage evaluation in the original submission. <b>South</b> The redistribution of groundwater discharge to Mill Creek results in a reduction/loss of groundwater flow in the area of Zone 2 wetland. This has been characterized as a minor change in the hydrology, however has also been characterized as having only a minor contribution of groundwater to the hydrological support. Groundwater presently flowing from north to south through Zone 2 will cease. Presently this north to south flowing groundwater prevents water from Mill Creek from entering the wetland. Will the future wetland be supported by direct precipitation and reverse flow from Mill Creek? Attachment #3 confirms the redistribution but does not discuss actual impact of the redistribution. <b>SouthWest</b> The potential flooding of private lands is proposed to be mitigated through the installation of a subsurface drain designed to capture the excess water and divert it northward into Tributary 3. A total of 220m <sup>3</sup> /day is estimated to be diverted through the drain into Tributary 3. Figure 4 of the October 21, 2005 Groundwater Uplift Report shows the neighbour's house to be almost surrounded by wetlands including those along Tributary 3. Does this affect hydroperiod of the wetlands or affect use of the neighbour's property in any way? What does drain do to the final lake level estimate? Confirmatory monitoring is recommended to validate the model results.	General Water Level Changes
11	There are upward gradients on-site and regionally, Mill Creek is a groundwater discharge zone.	Groundwater Flow System Characterization
12		Groundwater Flow System Characterization
13		Groundwater Flow System Characterization
15	OK	Groundwater Flow System Characterization
20	Respose Noted	Groundwater Flow System Characterization
35	This site is located at the termination of a large groundwater flow system. The wetlands surrounding this site and the cold water fisheries are indications of regional groundwater discharge. Licensing the site to a blanket elevation of 285 m AMSL where Figure 2 clearly shows many areas onsite that do not have resource below 290 m AMSL and where there are geological layers that isolate lower hydrogeological systems from shallower systems should be offered as much protection as possible. We are fully onboard with maximizing the resource, it is our opinion that greater detail to depth of extraction to minimize impacts and disruption of groundwater flow beneath confining layers should be obtained.	Groundwater Flow System Characterization
38	We disagree that the water level in MW18-05 represents the water table given the difference in chemistry and hydrograph. We maintain that mining through finer grained geological layers may affect the upward gradient at stations such as MW18-05. The depth to the bottom of resource at MW18-05 is approximately 294 m AMSL. There is no need to license to 285 at this location.	Groundwater Flow System Characterization
39	Noted	Groundwater Flow System Characterization

Comment	Response March 2026	Issue
40	We maintain that there are artesian conditions show at MW18-05 and licensing should be limited to the depth of known resource in this area and not a blanket 285 m AMSL.	Groundwater Flow System Characterization
41	This is a sensitive hydrogeological area at the end of a regional groundwater flow system. As such, the greatest impact to hydrologically sensitive areas such as wetlands and cold water streams occurs in this area and demands better definition of hydrogeology such that the model can better simulate potential changes. We are not satisfied with the level of calibration for the groundwater model.	Groundwater Flow System Characterization
54	It is our opinion that the scaling methodology used is subject to influences not accounted for in the scaling method.	Groundwater Flow System Characterization
56	It is unclear what the value of bedrock elevation is at the bullseye around MW18-05.	Groundwater Flow System Characterization
59	This site is located at the termination of a large groundwater flow system. The wetlands surrounding this site and the cold water fisheries are indications of regional groundwater discharge. Licensing the site to a blanket elevation of 285 m AMSL where Figure 2 clearly shows many areas onsite that do not have resource below 290 m AMSL and where there are geological layers that isolate lower hydrogeological systems from shallower systems should be offered as much protection as possible. We are fully onboard with maximizing the resource, it is our opinion that greater detail to depth of extraction to minimize impacts and disruption of groundwater flow beneath confining layers should be obtained.	Groundwater Flow System Characterization
66	Water Report section 5.7.3 mentions upward gradients with respect to Mill Creek, Tributary #3 and PSW's. It is our opinion that referring to this site as an area of downward hydraulic gradients is not inaccurate given the on-site observations.	Groundwater Flow System Characterization
67	See Response to Comment #35	Groundwater Flow System Characterization
68	See Response to Comment #35	Groundwater Flow System Characterization
69	See Response to Comment #35	Groundwater Flow System Characterization
70	See Response to Comment #35	Groundwater Flow System Characterization
71	Groundwater levels at MW18-05 are different because of the geological make up of the site. These localized layers have not been captured in the model and yet are important to the local groundwater regime feeding water to local wetlands and Mill Creek. There is not sufficient detail in the geological investigation nor the proposed mining plan to allow for appropriate mitigation (through mine depth reduction e.g.) to maintain this local groundwater flow system.	Groundwater Flow System Characterization
72	Nonetheless localized artesian conditions are indicated by the water levels in MW18-05 and confirmed by water quality.	Groundwater Flow System Characterization
77	Noting that onsite and near site observations include many instances of upward hydraulic gradient, discharge conditions that are susceptible to change from mining impacts both from equivalent pumping rate of extraction and physical removal of geological layers.	Groundwater Flow System Characterization
78	Noting that onsite and near site observations include many instances of upward hydraulic gradient, discharge conditions that are susceptible to change from mining impacts both from equivalent pumping rate of extraction and physical removal of geological layers.	Groundwater Flow System Characterization
79	Noting that onsite and near site observations include many instances of upward hydraulic gradient, discharge conditions that are susceptible to change from mining impacts both from equivalent pumping rate of extraction and physical removal of geological layers.	Groundwater Flow System Characterization
8	See our Responses to Comments 40-58	Groundwater Model
37	Response noted.	Groundwater Model
42	We concur that a groundwater divide may well exist, but this does mean perpendicular groundwater flow from the divide. Much of the Paris Moraine is a groundwater divide, but flow from the divide is not perpendicular to the crest.	Groundwater Model
43	This site is located at the termination of a large groundwater flow system. The wetlands surrounding this site and the cold water fisheries are indications of regional groundwater discharge. Artesian conditions occur in specific areas within wetlands or Mill Creek according to the hydrogeological constraints, such as till layers. This area has developed specialized flora and fauna, somewhat based on groundwater discharge conditions. The pit will remove, not only sand and gravel, but also silt layers that direct or redirect groundwater flow. This model, as a tool, can provide general impacts, but lacks the detail, needed to address direct impacts to specific areas within Mill Creek or the wetlands.	Groundwater Model
44	Acknowledged.	Groundwater Model
45	As a tool, the model cannot represent conditions such as those observed at SP18-03 or MW18-05, nor the impacts of removal of fine grained layers at the site.	Groundwater Model
46	Detailed hydrogeological investigation of the bedrock beneath the site was not conducted, leaving the model to infer conditions from offsite sources.	Groundwater Model
47	It remains our opinion that the model is not a very accurate representation of water level changes in the surface water features, and includes features that do not exist. We understand from the response that the initial head is defined as the ground surface in the wetlands and drawdown is calculated from that initial head to the model computed heads.	Groundwater Model
48	Acknowledged.	Groundwater Model
49	Acknowledged.	Groundwater Model
51	Response noted.	Groundwater Model
53	Acknowledged, the head loss across the lake was not otherwise mentioned.	Groundwater Model
57	In an hydrogeological regime where centimeters of water level change may make a difference to hydroperiods and volume of groundwater discharge, a discrepancy of one metre is significant. All but one of the predicted values skew below the theoretical regression line for on-site targets, all located in a small elevation section of the overall calibration. This suggests a localized issue with the model. There is an under prediction of water levels at the site and it is unclear to us how this affects predictions related to final water levels, flooding, baseflow reduction in upgradient areas of Mill Creek etc...	Groundwater Model
58	See Response to Comment 57.	Groundwater Model
61	Noted that final lake level fluctuations will be about 0.3 metres. It is not clear that the proposed drain has been included in the final rehabilitation model.	Groundwater Model
63	Detailed hydrogeological investigation of the bedrock beneath the site was not conducted, leaving the model to infer conditions from offsite sources.	Groundwater Model
74	No change in our comment. Figure 14A should be presented with a smaller contour interval, say 0.1 m.	Groundwater Model
4	It is noted that there is no overall reduction in groundwater discharge, however Zone 1,2 and 5 wetlands will have reduced groundwater discharge as will Mill Creek. We were looking for confirmation that biologists were satisfied that this is not problematic for the flora and fauna of the wetlands and Mill Creek.	Reduced Groundwater Discharge to Wetlands/Streams
5	Attachment 4 is a qualitative assessment. Based on values in Attachment 4 and from the Water Report I have prepared Table 1 attached. I have asked Aboud and Associates to weigh in on significance of groundwater input reductions and overall reductions. Also, where groundwater increases we have asked for Aboud to comment.	Reduced Groundwater Discharge to Wetlands/Streams
6	Attachment 3 does not assess the loss of flow to Zones 1,2 and 5. We concur that overall there is no significant reduction in groundwater discharge to Mill Creek or Tributary 3, but what happens in those areas where groundwater flow is greatly reduced?	Reduced Groundwater Discharge to Wetlands/Streams
9	The natural heritage report does not acknowledge the potential for water level decline beyond the 120 m distance and should be revised to evaluate whether or not the projected impacts from the model are problematic for the wetland. If so, either the pit design must change, mitigation considered or monitoring considered. Attachment #4 provides a qualitative assessment of impacts to the PSW's. The impacts have been described as minor or minimal. Our concerns have been expressed to Aboud and Associate for further comment.	Reduced Groundwater Discharge to Wetlands/Streams
10	The seeps identified by the biologists may be significant for flora and fauna. Do the biologists recognize that these seeps are in the zone of groundwater flow reversals and will this impact on the flora and fauna. Where is this evaluation of the impact of flow reversal stated? Figure 15 in Appendix G of the Water Report clearly shows large section of Mill Creek that will no longer have groundwater discharge.	Reduced Groundwater Discharge to Wetlands/Streams

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16	Attachment #3 does not assess the loss of flow to Zones 1,2 and 5. We concur that overall there is no significant reduction in groundwater discharge to Mill Creek or Tributary 3, but what happens in those areas where groundwater flow is greatly reduced?	Reduced Groundwater Discharge to Wetlands/Streams
18	Attachment 3 does not assess the loss of flow to Zones 1,2 and 5. We concur that overall there is no significant reduction in groundwater discharge to Mill Creek or Tributary 3, but what happens in those areas where groundwater flow is greatly reduced?	Reduced Groundwater Discharge to Wetlands/Streams
19	Attachment 3 does not assess the loss of flow to Zones 1,2 and 5. We concur that overall there is no significant overall reduction in groundwater discharge to Mill Creek or Tributary 3, but what happens in those areas where groundwater flow is greatly reduced? Attachment 4 is a qualitative assessment. Based on values in Attachment 4 and from the Water Report I have prepared Table 1 attached. Aboud and Associates are aware of our concerns.	Reduced Groundwater Discharge to Wetlands/Streams
21	Attachment 3 does not address individual areas of loss of groundwater discharge. Aboud and Associates are aware of our concerns.	Reduced Groundwater Discharge to Wetlands/Streams
22	Attachment 3 does not address individual areas of loss of groundwater discharge. Will discuss with Aboud and Stovel in regard to magnitude and relevance. Not sure agree with assessment that groundwater input is only 9% of flow, what is it during dry months, what is the effect of cool water from groundwater presently? Need to review Monitoring.	Reduced Groundwater Discharge to Wetlands/Streams
23	Attachment 3 does not address individual areas of loss of groundwater discharge. Aboud and Associates are aware of our concerns.	Reduced Groundwater Discharge to Wetlands/Streams
24	Good discussion on redistribution. Can the Township be made aware of the DFO comments?	Reduced Groundwater Discharge to Wetlands/Streams
26	Attachment 3 does not assess the loss of flow to Zones 1,2 and 5. We concur that overall there is no significant reduction in groundwater discharge to Mill Creek or Tributary 3, but what happens in those areas where groundwater flow is greatly reduced? Attachment 4 is a qualitative assessment. Based on values in Attachment 4 and from the Water Report I have prepared Table 1 attached. Aboud and Associates are aware of our concerns.	Reduced Groundwater Discharge to Wetlands/Streams
28	Attachment 3 does not assess the loss of flow to Zones 1,2 and 5. We concur that overall there is no significant reduction in groundwater discharge to Mill Creek or Tributary 3, but what happens in those areas where groundwater flow is greatly reduced? Attachment 4 is a qualitative assessment. Based on values in Attachment 4 and from the Water Report I have prepared Table 1 attached. Aboud and Associates are aware of our concerns.	Reduced Groundwater Discharge to Wetlands/Streams
29	The increases in groundwater discharge to the wetlands is noted and we rely on the NH specialists to comment.	Reduced Groundwater Discharge to Wetlands/Streams
30	We are asking the Natural Heritage report to reflect the predicted impacts from the Water Report.	Reduced Groundwater Discharge to Wetlands/Streams
31	Attachment 3 does not assess the loss of flow to Zones 1,2 and 5. We concur that overall there is no significant reduction in groundwater discharge to Mill Creek or Tributary 3, but what happens in those areas where groundwater flow is greatly reduced? Attachment 4 is a qualitative assessment. Based on values in Attachment 4 and from the Water Report I have prepared Table 1 attached. Aboud and Associates are aware of our concerns.	Reduced Groundwater Discharge to Wetlands/Streams
32	Attachment 3 does not assess the loss of flow to Zones 1,2 and 5. We concur that overall there is no significant reduction in groundwater discharge to Mill Creek or Tributary 3, but what happens in those areas where groundwater flow is greatly reduced? Attachment 4 is a qualitative assessment. Based on values in Attachment 4 and from the Water Report I have prepared Table 1 attached. Aboud and Associates are aware of our concerns.	Reduced Groundwater Discharge to Wetlands/Streams
34	None of the reports including the 2025 attachments acknowledge the expected drawdown beneath the wetlands beyond the 120 m study zone. We do not agree that a qualitative assessment is reasonable approach. It must be made clear that the NH specialists have considered the drawdown beyond 120 m and agree that the impact is acceptable.	Reduced Groundwater Discharge to Wetlands/Streams
50	The baseflow analysis provided in Attachment #3 confirmed that downgradient, there is no overall change but does not address localized reductions in baseflow.	Reduced Groundwater Discharge to Wetlands/Streams
55	The baseflow analysis provided in Attachment #3 confirmed that downgradient, there is no overall change but does not address localized reductions in baseflow.	Reduced Groundwater Discharge to Wetlands/Streams
73	Attachment #3 does not address local reductions in groundwater flow.	Reduced Groundwater Discharge to Wetlands/Streams
75	Three metres or more of drawdown is not insignificant in an area where wetlands and streams rely on groundwater discharge.	Reduced Groundwater Discharge to Wetlands/Streams
76	Year over Year reduction in baseflow to both Mill Creek and Tributary # 3 confirmed.	Reduced Groundwater Discharge to Wetlands/Streams
81	The planning report understates the extent of the water table drawdown.	Reduced Groundwater Discharge to Wetlands/Streams
82	The planning report understates the extent of the water table drawdown.	Reduced Groundwater Discharge to Wetlands/Streams
83	See Response #3. The water level changes are not insignificant and have impacts off-site.	Reduced Groundwater Discharge to Wetlands/Streams
85	The planning report understates the extent of the water table drawdown.	Reduced Groundwater Discharge to Wetlands/Streams
86	The planning report does not include the permanent impacts to the water table, permanent reduction in groundwater flow to reaches of Mill Creek and Tributary #3.	Reduced Groundwater Discharge to Wetlands/Streams
87	The planning report does not include the permanent impacts to the water table, permanent reduction in groundwater flow to reaches of Mill Creek and Tributary #3.	Reduced Groundwater Discharge to Wetlands/Streams
1	This is the first time that Harden was presented with the January 2024 model report. I have attached three figures to facilitate this discussion. Regarding the Harden Letter of February 11, 2024 the letter clearly refers to Schedule E which shows limited siltation infill in the Aberfoyle South pit area south of Hwy 401(Figure 1). This is the area designated Zone A (Figure 2)in the January 2024 WSP report. The image attached shows that Zone A is now completely full of silt and there are four feeder pits proposed to continue to supply silt, designated A through D on the attached Figure 3. The McNally pit will soon be, if not already out of compliance with the agreed to siltation areas from the 2024 OLT (Figure 1). The trench was a suggested mitigation to the noncompliant deposition of silt in Zone A and was not a blanket mitigation for any other infill. The Township expects that amendments to the McNally Pit license will be necessary to allow for continued silt deposition.	Silt at McNally
60	This is the first time that Harden was presented with the January 2024 model report. Regarding the Harden Letter of February 11, 2024 the letter clearly refers to Schedule E which shows limited siltation infill in the Aberfoyle South pit area south of Hwy 401. This is the area designated Zone A in the January 2024 WSP report. The image attached shows that Zone A is now completely full of silt and there are four feeder pits proposed to continue to supply silt, designated A through D on the attached figure. The McNally pit will soon be, if not already out of compliance with the agreed to siltation areas from the 2024 OLT. The trench was a suggested mitigation to the noncompliant deposition of silt in Zone A and was not a blanket mitigation for any other infill. The Township expects that amendments to the McNally Pit license will be necessary to allow for continued silt deposition.	Silt at McNally
80	See our Response #1.	Silt at McNally
27	Show mitigation barrier on site plans (similar to Tikal Pit) and invoke if necessary without need to amend site plans. Contingent on water levels obtained east of Mill Creek. Need to read attachment as to why it is ok to eliminate groundwater flow to Mill Creek from the pit side.	Site Plan
84	Error noted.	Site Plan
89	Site Plan standards change noted, however, the link between site plan elevations from Geo Optic and those surveyed levels has not been provided.	Site Plan
90	Noted	Site Plan

Comment	Response March 2026	Issue
91	Addition of flow arrows noted.	Site Plan
92	Correction noted.	Site Plan
93	Correction noted.	Site Plan
94	Seasonal lake level variability noted.	Site Plan
65	Noted. A limited scope well survey may well be warranted at this stage given the presence of dug wells.	Well Survey