



July 17, 2023

Aggregate Section
Regional Operations Division
300 Water Street
Peterborough, ON, K9J 3C7

Attn: Rose Copeland, Aggregate Specialist
Carla Riche, A/Aggregate Resources Planner

Dear Rose and Carla:

**RE: ARA Application #626574 - Response to MNRF January 9, 2023 Comments
Waterford Sand & Gravel Ltd – Proposed Law Quarry Extension
OUR FILE '0956C'**

This letter provides a response to the comments provided by MNRF on January 9, 2023 on the ARA Licence Application for the proposed Law Quarry Extension (#626574). Attached to this correspondence is a detailed comment and response table that addresses the comments that MNRF provided on the Licence Application and Site Plan. In addition, a revised copy of Site Plans has also been included with this correspondence that implements the outlined changes.

Since January 2023 we have been working on resolving the Agency Comments received during the ARA 60-Day notification and consultation period. No public comments were received. The status of the Agency comments is outlined in the Table below:

Agency	Comments Received during 60-Day ARA comment period	Status
Region of Niagara, Township of Wainfleet, and Region of Niagara Conservation Authority (JART)	Comments received as part of the JART process.	Law Quarry Extension Project Team preparing responses to JART comments.
Ministry of the Environment, Conservation, and Parks – Groundwater	Surface and Groundwater comments were provided by MECP	MECP comments to be addressed via ECA/PTTW Application (in progress).

Ministry of the Environment, Conservation, and Parks – Species at Risk	Comments received on January 20, 2023	Comments addressed per June 8, 2023 email from MECP
OMAFRA	Comments received on January 27, 2023	OMAFRA confirmed no comments on application
Public	No comments received	n/a

Additional information regarding the status of the additional work undertaken to address MNRFs comments regarding the Biederman Road Allowance included within the proposed Licence Boundary and the Partial Clearance of Archaeological Resources is outlined below:

1. Biederman Road Allowance

On the revised Law Quarry Extension Site Plans, a portion of the Township owned Biederman Road Allowance has been included within the Licence Boundary. The alternate rehabilitation option has been removed.

Waterford Sand & Gravel Limited submitted an Application to purchase a portion of the Biederman Road Allowance to the Township of Wainfleet on June 1, 2023. We are working with the Township to meet the requirements of the Township Land Disposal Policy, including public notification of the intended road allowance closure and purchase. A copy of the signed Purchase Agreement, or alternative form of proof of ownership, will be provided to MNRF when available.

2. Partial Archaeological Clearances

We have been working closely with staff from MCM to develop Site Plan notes that ensure the protection of all Archaeological Resources within the proposed Licence Boundary to their satisfaction. The revised Site Plan notes (June 2023) have been reviewed by MCM staff. Based on feedback and direction from MCM, updated Stage 1 and 2 Archaeological Reports have been prepared by ASI Heritage and are currently being circulated to Indigenous communities for review and input. It is anticipated that the final Reports will be circulated to MCM for clearance this summer. The MCM clearance letter will indicate MCM's acceptance of the proposed approach implemented on the Law Quarry Extension ARA Site Plans for the protection of the Archaeology Sites. The MCM Clearance letter will be provided to MNRF when available.

In summary, the Site Plan includes the following protections for the identified Archaeological Sites (see detailed notes on Page 3, M.5):

- All archaeological sites will be protected with a 70m buffer until the required additional archaeological assessments have been completed (i.e. Stage 3 and 4);

- No alteration/disturbance can occur in any of the Archaeological sites, or their 70m buffers, until the MCM clearance has been issued;
- In addition to clearance being provided by MCM, MNRF must also provide approval for alternation/disturbance in an Archaeological Site to ensure all requirements for Duty to Consult have been met.
- Should the completed Archaeological Assessments for the Archaeological Sites result in a change to the Quarry Operations Plan or Rehabilitation Plan, than an Aggregate Resources Act Site Plan Amendment would be required to update the Site Plan. An ARA Site Plan Amendment would be required for any changes to the limit of extraction as shown on the Site Plan drawing (June 2023).

This approach ensures that all required Ministry clearances and approvals are in place, prior to any disturbance occurring in the identified Archaeological Sites and their required buffer areas. Waterford Sand & Gravel Ltd. has been working closely with Indigenous Communities on this ARA Licence Application. To date, no concerns regarding Waterford's proposed approach to the protection of the Archaeology Sites has been raised by Indigenous Communities.

Thank-you for your comprehensive review of the proposed Law Quarry Extension application materials. If any of our responses are unclear or do not resolve your comments, we would be happy to schedule a virtual meeting in order to discuss additional revisions that may be required to satisfy your concerns.

Yours truly,
MHBC



Caitlin Port, MES, MCIP RPP

Cc Ed Lamb, Waterford Sand & Gravel Limited
Neal DeRuyter, MHBC

*Attach July 17, 2023 Comment and Response Table (MHBC July 17, 2023)
Revised Law Quarry Extension Red-Line Site Plans, June 2023
WSP Response to MNRF Hydrogeology comments, January 24, 2023*

**Proposed Law Crushed Stone Quarry Extension, Township of Wainfleet
Aggregate Resources Act (ARA) #626574
Response to MNRF January 9, 2023 Comments
July 17, 2023**

MNRF Comments	Response from Law Quarry Extension Project Team
Natural Environment Report Comments	
<p>1. As per ARA Technical Reports and Information Standards, Section 2.2 (e), endangered and threatened species and their habitat need to be assessed for negative impacts, including inventory, habitat assessments and any proposed preventative, mitigative or remedial measures must be identified. As endangered and threatened species and their habitat are regulated by the Ministry of Environment, Conservation and Parks (MECP), we acknowledge that the applicant has circulated the MECP to ensure that the proposed development, including the proposed rehabilitation, is in accordance with the Endangered Species Act. The proposed inventory, habitat assessments and mitigation recommended (e.g., setbacks) in the Natural Environment Report should be reviewed by MECP to determine whether it is sufficient to avoid negative impact on endangered and threatened species within the study area.</p>	<p>MECP has reviewed the application materials and a new site plan note has been added to the site plan to address Species at Risk permitting requirements.</p> <p>Correspondence provided by MECP on June 8, 2023 confirms that their comments have been addressed. This correspondence has been provided to MNRF.</p>
<p>2. Editorial: We noted an error within the Natural Environment Report - Significant Wildlife Habitat Criteria Schedule. Ecoregion 6E was listed in Table 1 (Appendix 5) instead of Ecoregion 7E. However, in our review, we have confirmed that 7E was appropriately used in the analysis. As such, this comment serves to acknowledge this typographical error and confirm we have no concerns with the conclusions made within this section of the report.</p>	<p>Comment noted.</p>
<p>3. The Wainfleet Bog Wetland Complex, associated significant woodland and significant wildlife habitat are present in the adjacent lands (within 120 information boundary) and have the potential to be impacted from quarry operations. Please confirm the setbacks are adequate to ensure no impacts to the water budget/balance, water levels, thermal regime and hydroperiod of these natural heritage features.</p>	<p>The hydrogeological studies completed for submission with the application provided a thorough review of the potential impacts to the Wainfleet Bog Complex. Some additional details relating to groundwater and surface water interference between the quarry and the wetland complex are provided below. Based on the conclusions of the Level 1 and 2 Water Report and Natural Environment Report, the recommended setbacks from the features are sufficient to protect the wetland complex and associated significant woodland and wildlife habitat.</p> <p>Groundwater Concerns regarding potential groundwater interference between the Wainfleet Bog and Law Quarry have a long history. A study was undertaken in 2002 by the National Water Resources Institute (NWRI) and Niagara Peninsula Conservation Authority (NPCA) to determine the long-term impacts of the quarry dewatering on the Wainfleet Bog (see</p>

	<p>attached). As noted in the final sentence of the abstract, “current quarry and future expansion will have minimal impact on the bog.”</p> <p>This study was reviewed as part of the Level 1 and 2 Water Report study for the Law Quarry Extension, and the numerical groundwater modeling completed by WSP was consistent with the conclusions of the 2002 paper. As shown in the Level 1 and 2 Water Report, recharge from the bog to the groundwater system under baseline conditions is estimated as 125 m³/day (Table H.6.2., Appendix H). Under fully developed conditions, recharge from the bog to the groundwater system is predicted to be 132 m³/day (Table H.7.2, Appendix H). The difference of approximately 7 m³/day occurs over the entire area of the bog (approximately 12 km²), which is equivalent to less than 1 mm/year in recharge to the underlying groundwater system. Therefore, it is interpreted that this difference would be immeasurable in the field.</p> <p>Surface Water</p> <p>The presence of the Biederman Drain along the southern extent of the Wainfleet Bog does not allow direct surface runoff from the proposed extension footprint to the bog itself.</p> <p>Nevertheless, development of the proposed quarry extension will decrease the area of the Biederman Drain subwatershed, from 18.2 km² to approximately 17.6 km² (a 3% reduction in area). Therefore, under full quarry development, it is expected that there will be a 3% reduction in surface water runoff to the Biederman Drain averaged over the entire year. As noted in Section H.6, Appendix H (of the Level 1 and 2 Water Report), groundwater discharge to the Biederman Drain under baseline conditions is negligible, approximately 98 m³/day (2 mm/year averaged over the entire subwatershed area).</p> <p>Therefore, there is no predicted impact to the water budget/balance, water levels, thermal regime and hydroperiod of Wainfleet Bog PSW complex and associated features.</p>
<p>Hydrogeology</p>	
<p>4. It is important to fully understand the degree of hydrological connectivity between the Wainfleet Wetland and groundwater. The report provides references to studies that indicate perched conditions at the Wainfleet Wetland. Please provide specifics of those studies including location of the monitoring wells used during studies and other relevant information. This is needed to ensure that the conclusions in the referenced reports are based on methodology adequately corresponding with the scale and location of the proposed expansion and are valid.</p>	<p>See attached response from WSP previously circulated to MNRF on January 24, 2023</p>
<p>5. Please provide a map showing calculated drawdowns in the upper layers to visualize a real distribution of the drawdown. Further, please use 0.5 m drawdown as a cut off to</p>	<p>See attached response from WSP previously circulated to MNRF on January 24, 2023</p>

<p>produce the contours to better understand potential impacts to the water features located within the zone of influence.</p>	
<p>Site Plans</p>	
<p>General</p>	
<p>6. It is noted that the licenced area includes Biederman Road road allowance. At the time of application, proof of extraction rights was provided for properties owned by Waterford Sand & Gravel Limited and by Paul Cameron Holdings Inc. However, no agreement with the road authority for inclusion of Biederman Road road allowance was provided. Please provide confirmation of support from Township of Wainfleet for inclusion within the licenced area. Without this support prior to licensing, further changes to licenced boundaries, setbacks, boundary demarcation, entrance locations and requested variances to Control and Operation Standards may be required. This comment also relates to the 'Alternative Rehabilitation Option' diagram on page 4 and its resolution may require review of other notes on the site plan for consistency. It is noted that some alternatives have been provided, however, the note speaks to this alternative being implemented in the absence of an agreement to extract. It is further noted that the alternative rehabilitation diagram on page 4 shows the licenced boundary not extending over the road allowance. A reduction of licenced area requires formal approval and consequently cannot be undertaken in this manner. The right to extract must be demonstrated prior to the issuance of a licence.</p>	<p>The Township of Wainfleet Council has endorsed a request made by Waterford Sand and Gravel to purchase Biederman Road, in accordance with the Township’s Land Disposal Policy. An Application to purchase Biederman Road has been submitted to the Township and is in process.</p> <p>We anticipate that agreements for the road allowance closure and purchase will be reached with the Township shortly and a copy of these agreements will be provided to MNRF when available.</p> <p>The “Alternative Rehabilitation Option” on Page 4 has been removed.</p>
<p>7. It is the Ministry's opinion that a partial clearance of archaeological resources may not be appropriate on this site. The archaeological find spots where temporary avoidance is proposed are numerous and creates an overly complex site plan with constraints to implementing other mitigation requirements. It is recommended that the necessary archaeological assessments be completed before the site plan is finalized. If the Ministry of Tourism, Culture and Sport (MTCS) supports the partial clearance as it is proposed, we have provided comments on the draft site plan intended to address our interests under the Aggregate Resources Act. We encourage the applicant to share these comments with MTCS for their consideration and obtain confirmation they are comfortable with the “islands” holding archaeological find spots once below-water extraction occurs and dewatering activities cease.</p>	<p>The Site Plan drawings and notes have been updated, in consultation with staff from MCM, to ensure the protection of archaeological resources within the proposed Law Quarry Extension Licence boundary.</p> <p>The updated Stage 1 and 2 Archaeology Reports included the revised ARA Site Plan and have been submitted to MCM for their review and Clearance.</p> <p>The Clearance Letter issued by MCM for the Stage 1 and 2 Archaeology Reports will indicate MCM agreement with the Archaeological Site protection measures afforded by the Site Plan and issuance of the ARA Licence.</p> <p>The MCM Clearance Letter will be circulated to MNRF when issued.</p>
<p>8. The application makes several proposals that would require corresponding amendments on ARA Licence #4464. Additionally, as noted below in Comment#26, effecting a combined tonnage condition will necessitate an amendment to#607541 as well. To ensure these changes are carried out concurrently with the issuance of new</p>	<p>Site Plan and Licence Amendments to ARA Licence #4464 and #607541 will be prepared and submitted to Aggregate Section staff for review and processing with the ARA Licence Application #626574. We are working on the Site Plan Amendment application and revised Site Plan for these two licences.</p>

<p>Licence #626574, should it be supported, the Ministry requests formal amendment applications be made for Licences #4464 and #607541.</p>	
<p>9. Consistent with AR 2.00.03 'Licence Conditions / Site Plan Notes', requirements of the Act or Regulation should not be duplicated on the site plan. Doing so may cause inconsistencies in language and applicability, and consequences to the enforceability of requirements. We have provided a few comments below noting these duplications, however, we recommend reviewing the draft site plan for any further and unnecessary duplications.</p>	<p>Including the Operational Requirements (s.13) of O.Reg 244/97 on the Site Plans makes certain that the Licensee is aware of these requirements and ensures operation of the quarry in compliance with the Control and Operational Rules.</p> <p>In addition, there is benefit to including these requirements on the Site Plan so that they are more visible for members of the Public and reviewing agencies.</p> <p>We have updated the site plan notes to better align with the wording of the regulations included in O.Reg 244/97. 0.13</p> <p>We would be happy to review and discuss this further with MNRF.</p>
<p>10. Where 'NDMNRF' or 'MNDMNRF' is listed on the site plan, please replace with 'MNRF'. Similarly, the Ministry with responsibility for the Ontario Heritage Act is now named the Ministry of Tourism, Culture and Sport (MTCS).</p>	<p>This change has been made. We note that the Ministry responsible for the Ontario Heritage Act is no the Ministry of Citizenship and Multiculturalism.</p>
<p>Existing Features</p>	
<p>11. The Ministry recommends removing operational information from Existing Features page. If the need for an amendment arises in the future, this will reduce the changes necessary to the site plan. Operational information would include: extraction area, setbacks, monitoring buffers, requirement to stake licenced boundary</p>	<p>Given the uniqueness of the limit of extraction in relation to the Archaeological Sites, we believe that including the limit of extraction on the Existing Features Page is beneficial in identifying the operational context of the Licence. We would be happy to discuss this further with MNRF.</p>
<p>12. The symbology for monitoring lines is not in legend. Additionally, some monitoring lines are not labelled with distances. This makes it unclear what is to occur, or not occur, within these areas.</p>	<p>The Archaeology monitoring areas (i.e. fencing requirements) have been revised and updated based on further consultation with MCM. A symbol for the fencing has been added to the Existing Features Page legend and the distances are labeled.</p>
<p>13. The symbology for Significant Wildlife Habitat is overlaid by the licenced boundary symbology, and this makes it difficult to identify. The Ministry recommends overlaying the thinner symbology on the thicker.</p>	<p>This change has been made to the Existing Features Page to improve the symbology for Significant Wildlife Habitat.</p>
<p>14. The Natural Environment Report identifies Significant Woodland within the study area. Please label this feature so it is clear to the reviewer. This information is important to ensure the recommended mitigation is appropriately applied and may have bearing in the consideration of future site plan amendment requests.</p>	<p>We agree that the labeling of the Significant Natural Heritage Features and their setbacks is confusing. The symbology and labelling has been updated to be more clear on the revised Site Plan.</p>

Operations	
15. Page 2 Drawing – The existing entrances along the southern boundary remain on the operations page where Acoustic Berm C is required.	Additional wording has been added to Note C1 (on Page 3 – Notes Page) to state that: <i>“The Highway #3 field accesses shall no longer be used once the Phase 4 Berm has been installed”</i> . This berm is not required until later phases of extraction.
16. Page 3 Note C1 explains the intended use of these entrances however, the Ministry requests that further information be added to confirm that the use of these entrances will not interfere with the installation and function of the required acoustic berm, as it's outlined on page 2.	See Response above.
17. Page 2 Drawing – The hatching within Acoustic Berms A & B appears to change in certain areas but the significance of this change is unclear from the legend. Additionally, this distinction would not be easily seen if the site plan were to be printed. Please revise legend and symbology as necessary to comply with the Site Plan Standards.	The Berm symbology has been revised so that it is just one symbol. Call out notes have been added to identify Archaeological Sites that are located “under” berms and to reference the Archaeological Site Protection measures outlined on Page 3 and in schematic B on Page 2. These notes have been developed in consultation with MCM.
18. Page 2 Drawing – The text on this drawing refers to several Technical Report recommendations as "M". For ease of reading, please be more specific to the referenced notes on page 3. It may be beneficial to adopt a numbering system that allows unique numbering for each site plan note.	Note M on Page 3 has been revised to include additional numbering for the Technical Report recommendations.
19. Page 2 Drawing - The significance of the broken purple lines within Phases 2 and 4 is unclear from the legend. Additionally, the legend explaining the solid purple line should be revised to say: 'General Direction of Extraction and Phase/Area Boundaries'.	The broken purple lines have been removed on the revised site plan and the Legend has been updated.
20. Page 2 Drawing – The colouration of symbology for Whip-poor-will habitat is not consistent between drawing and legend. Please revise for consistency.	This has been revised.
21. Page 2 Drawing – The drawing identifies a 10m setback adjacent to the Significant Wildlife Habitat. Consistent with O. Reg 244/97, the minimum setback from a licenced boundary must be 15 metres, unless a variance is approved through the site plan. However, it is noted that this area also relates to a Natural Environment Report recommendation and a larger setback is recommended. Please see Comments #1, #3 and #55 for further details.	The applicant owns all lands outside of the Licence Boundary to the North. A variance has been added to the Variance table on page 3. The Riverstone Natural Environment Report recommends a 30m setback from the Onondaga Escarpment Brow and a 30m setback from the PSW/Significant Woodland to the north. These setbacks have been implemented on the Site Plan and are labeled. We have updated the symbology and labeling to be more clear.
22. Page 2 Drawing - The drawing and page 3 Note G1 states that water collected on site will be directed to an existing sump on Licence #4464. Please identify the location of the discharge point on page 2. Additionally, please provide confirmation that any necessary approvals from MECP have been obtained. Alternatively, please include "subject to any necessary MECP approvals".	The discharge point of the internal drainage system will vary based the operational phase and progression of extraction activities. Note G1 has been updated as follows: <i>“In areas where quarrying is taking place, all of the runoff within the limit of extraction will be directed via an internal drainage network to the sump within the existing quarry footprint</i>

	<i>(Licence #4464 and Licence #607541) where water is then discharged via existing surface drainage features to the Eagle Marsh Drain. The location of the internal drainage network to the sump will vary based on the progression of extraction activities and will be subject to any required MECP approvals.”</i>
23. Page 2 'Typical Acoustic Berm Detail' and Page 3 'Berms and Screening' Notes - Notes F1 & F2 outline commitments for berm side slopes however, in consideration for regulations under the Occupational Health and Safety Act (OHSA), it is unclear whether the necessary height of the berm can be achieved with these commitments. Please review the diagram and confirm that there is sufficient footprint within the setback area to meet the commitments listed while also meeting the control and operation requirements in ARA Regulation 244/97 and the safety standards under the OHSA	<p>We can confirm that the footprint of the acoustical berms shown on Page 2 is drawn to scale based on the proposed berm height and sloping.</p> <p>There is sufficient area within the setback to accommodate the berms as proposed and meet the requirements O. Reg. 244/97 and OHSA safety standards.</p>
24. Page 2 'Berm and Noise Control Schematic' - The hatching for 'Maximum 1 Extraction Loader Permitted' must be applied to area adjacent to R16 where this restriction is also recommended by the noise report.	<p>We note the R16 is now owned by Waterford Sand and Gravel and the house on the property is proposed to be left vacant or demolished.</p> <p>An updated Noise Impact Study (Aercoustics, July 2023) has been prepared and is included with this correspondence. The recommendations from the updated Noise Impact Study are implemented on the updated Site Plan.</p>
25. Page 2 'Berm and Noise Control Schematic' - Please explain the purpose of including the following information on the site plan: It is noted that the requirement for Berm A, as well as the noise control items 11 - 17 and 18s (page 3 of 5) are necessitated solely by the receptor R16. If lands associated with Receptor R16 were to be owned by Waterford Group, Receptor R16 would not be considered noise sensitive so long as one of the following conditions is met: 1. It is occupied by persons associated with the quarry operations or who have entered into agreements with the quarry operations confirming that they are aware of any noise which may be generated by the quarry, and which may interfere with some activities of the occupants; or 2. It be left vacant.	<p>See response to above comment. An updated Noise Report has been prepared to adjust the noise controls based on the removal of R16. The recommendations on the Site Plan have been updated accordingly. The Site Plan includes the following note:</p> <p><i>“The Licensee will retain ownership or control of and will vacate houses within additional lands owned or controlled by applicant for the duration of the extraction operation. If the houses are occupied or the properties sold the licensee shall notify MNRF immediately and provide mitigation necessary to ensure provincial noise, air, and ground vibration and dust limits are satisfied”</i></p>
26. Page 3 'General' Note A2 – This note proposes a combined tonnage condition between three (3) ARA licenced sites – existing licences #4464 and #607541 and proposed licence #626574. The existing licences are currently permitted to each produce up to 400,000 tonnes per calendar year. The Ministry requests formal amendment applications be submitted for these changes. Please be advised that these amendments to licences #4464 and #607541 will be reviewed as tonnage increases and processes in accordance with Ministry policy direction.	<p>Amendments to combine the tonnages of licences #4464 and #607541 will be submitted. The new tonnage condition for all three licences will be as follows:</p> <p><i>The maximum number of tonnes of aggregate to be removed from this site, in combination with Licence #4464 and Licence #607541 is 800,000 tonnes in any calendar year.</i></p> <p>As the maximum tonnage across all three licences will be 800,000; therefore, there will be <u>no increase in tonnage.</u></p>
27. Page 3 'General' Note A5 – This note speaks to setbacks being noted on the Existing Features page. In line with Comment #12 above, it is recommended that these	See response to Comment 11 above. Given the uniqueness of the limit of extraction and setbacks associated with the Archaeological Sites, we have opted to leave the setbacks on the

<p>operational details be removed from the Existing Features page and this note revised appropriately.</p>	<p>Existing Features Page. The Existing Features page provides an appropriate overview of the Licence. We would be happy to discuss this with MNRF.</p>
<p>28. Page 3 'Site Access and Fencing' Note C4 - The commitment to maintain fencing is more appropriately included in Note C3 with the commitment to install or as a separate note so that it also applies to sediment fencing.</p> <p>Further, this note does not speak to the committed demarcation along the Significant Wildlife Habitat where another variance is requested.</p>	<p>Revisions to the fencing notes have been made to improve clarity. A new note, note C6, has been added and states that:</p> <p><i>“All required post and wire fencing and sediment control fencing shall be maintained for the life of the extraction operation”</i></p> <p>A new note has been added (A9), that states that:</p> <p><i>“The limit of extraction and license boundary shall be surveyed and staked prior to any site disturbance. “</i></p> <p>We have added the required variance for the reduced setback along the northwest portion of the Licence boundary to the Variations List in Note N on Page 3.</p>
<p>29. Page 3 'Site Preparation' Note E5 – This note speaks to permitting movement of topsoil off-site to Licence #4464 however, a variance to s.13 of O.Reg.244/97 for this activity has not been requested. Consistent with AR 2.00.03 ‘Licence Conditions /Site Plan Notes’, a variance of this requirement would not normally be considered unless it is demonstrated that there is significantly more topsoil/overburden than necessary to complete final rehabilitation. In these circumstances, sufficient topsoil/overburden to complete the final rehabilitation must be stored on site and/or used in progressive rehabilitation before any topsoil/overburden is removed. However, it is noted that permission to import excess soil is also requested in this application. Typically, permission to import excess soil is considered in situations where it can be demonstrated that there is insufficient material on site to complete the proposed rehab. Further demonstration of need is requested.</p>	<p>This note is intended to address the temporary storage and stockpiling of topsoil and overburden when not needed for immediate use in berm construction or rehabilitation</p> <p>On the revised Site Plan, a variation has been added to the Variation table in Note N on Page 3 to allow for the movement and temporary stockpiling of topsoil and overburden in Licence #4464 (Variation to O.Reg 0.13 (17)).</p> <p>Permission for the movement, temporary storage, and use of overburden and topsoil across both Licences will be addressed in the Site Plan Amendment Application for Licence #4464.</p> <p>See also response to comment #64.</p>
<p>30. Page 3 'Site Preparation' Note E5 – This note commits to keeping stockpiles 90m away from property with a residential use. Permissible locations for topsoil and overburden stockpiles are addressed by the Control and Operation Standards (O. Reg. 244/97 s.0.13) and the note is not consistent with these requirements. Unless a variance to O.Reg.244/97 is requested, please remove content of notes addressed by regulation.</p>	<p>A Variance has been added to address this comment</p>
<p>31. Page 3 'Site Preparation' Note E6 - This note contains a variance to the Control and Operation Standards that has not been requested in Section N 'Variations from Control and Operation Standards'. Consistent with AR 2.00.02, a variance of this requirement would not normally be considered as vegetation provides erosion control and helps preserve the quality and quantity of the soil.</p>	<p>We have updated this site plan note to be consistent with O.Reg 244/93 Section 0.13(7) as follows:</p> <p><i>“Adequate vegetation shall be established and maintained on all berms and stockpiles of topsoil or overburden to control erosion”</i></p>

<p>32. Page 3 'Berm and Screening' Note F1 – This note states that berms will be constructed prior to extraction/processing operations in each Phase. However, a Stage 3 archaeological report is outstanding for find spots AfGt-266, AfGt-278 and AfGt-283 that are located within the footprint of a proposed acoustic berm. Consistent with the Stage 1 Archeological Report recommendations, no alterations or soil disturbance may occur within the protected buffers of the archaeological site until these assessments have been completed. It is requested that the sequencing information on the site plan be revised to consider the timing of the required Stage 3 assessments in relation to the construction of berms and extraction.</p>	<p>Updated Archaeology notes have been developed in consultation with MCM and are included on Page 4.</p> <p>See Archaeology Note 1d.</p>
<p>33. Page 3 'Berms and Screening' Note F9 - This note states that aggregate below any berm that encroaches into the extraction area will be removed as part of final extraction/rehabilitation of the site. Given the recommendations of the noise report and the commitment to maintain the berms for the life of the site (ref. Acoustic Note 9), please provide further information on whether and how noise impacts to R15, generated from extraction of the area below Berm B, will be mitigated with the absence of Berm B. It is recommended that the applicant seek clarification from the author of the Noise Impact Study that the "life of the quarry" is intended to mean "during extractive operations" as rehabilitation activities should be considered as part of the life of the quarry.</p>	<p>The note regarding Berm B (now Berm A) has been revised to clarify that the berm is required only for the duration of extraction operations within the quarry. Site rehabilitation operations such as the removal of berms and underlying material is considered a construction activity and is exempt from consideration in the noise study. This has been revised in the updated Noise Report.</p>
<p>34. Page 3 Section H 'Extraction Sequence' - The draft site plan currently refers to areas within the site plan as "phases" while also referring to sequential periods of operations as "phases". This makes understanding the plan of operation difficult. Please revise with distinct language for each. It is recommended that "Area" be used for the physical footprint of operations and "Phase" be used in outlining the sequence of operations (e.g. In Phase 1, site preparation and extraction within Areas 1a and 1b will occur). It is noted that the existing language is used to align with the Noise Impact Study, however, the Ministry is comfortable with making the recommended change to those notes as well as the intent of those recommendations will not be altered. Making this change may also assist in addressing further comments arising out of this confusion. Similarly, further comments may arise once this clarification has been made to the Extraction Sequence notes.</p>	<p>The proposed quarry phasing and sequence of operations are not meant to be mutually exclusive. As stated in Note H1, the Phases do not represent any specific or equal time period and have been developed in consultation with the technical experts to best mitigate and avoid impacts on adjacent land uses.</p> <p>The Phasing notes directly relate to both the “footprint” of extraction area and sequence of operation. Based on our experience working with operators, this is the preferred approach for detailing operation details for the proposed sequence of operations.</p> <p>The Phasing notes have been written to improve clarity and provide more operational details for each extraction phase.</p> <p>We do not think that this is confusing and would be happy to further discuss this comment with MNRF.</p>
<p>35. Page 3 Section H 'Extraction Sequence' - This site plan contains a complicated outline of operations with conditions to satisfy noise mitigation while protecting archaeological resources that must still be adequately assessed before disturbance can occur.</p>	<p>In consultation with MCM, we have updated the Site Plan notes that relate to the protection of Archaeological Sites within the Licensed area. Further consultation has also occurred with MECP regarding the required approvals under the ESA. As Receptor 16 is now owned by Watford Sand and Gravel, Berm A is no longer required.</p>

<p>36. Additionally, it is acknowledged on the site plan that approval under the ESA in relation to the Category 1 Whip-Poor-Will habitat may be necessary prior to vegetation clearing to facilitate the construction of Acoustic Berm A.</p> <p>It is recommended that the applicant review the Extraction Sequence notes to better integrate all the technical recommendations and the timelines for them. This will help ensure no steps are missed and the licensee remains in compliance with their ARA approval and other associated legislation. For example: A Stage 3 report for find spots AfGt-266, AfGt-278 and AfGt-283, must be completed and accepted prior to Berm B installation. Berm installation must be completed before extraction within Phase 2.</p>	<p>The Phasing notes have been written to improve clarity and provide more operational details for each extraction phase. As suggested by MNRF we have included some of these additional "steps" into the Extraction Sequence of Operation on Page 3 to make it more clear for the Operations.</p>
<p>37. Page 3 'Extraction Sequence' Note H2 - "Minor deviations" is subjective and therefore may limit enforceability of sequencing. It is requested that the notes be revised to remove the second and third sentences. MNRF staff can be contacted to discuss any planned deviation and the need for prior formal approval.</p>	<p>This change has been made.</p>
<p>38. Page 3 'Extraction Sequence' Note H3 - Subject to the resolution of Comment#7, this note may require removal or modification. Additionally, the commitment to amend Licence #4464 should not be included on a site plan for a different licence. In line with Comment #9, this commitment should be addressed through a formal site plan amendment from the licensee of #4464. The request would be reviewed and if the new licence application is supported for approval, processed concurrently with the issuance of licence #626574.</p>	<p>This note has been revised. Documentation will be provided to MNRF once Waterford Sand and Gravel has purchased the Biederman Road Allowance. This purchase is in-progress.</p>
<p>39. Page 3 'Extraction Sequence' Note H4a - Portions of this note appear to apply more generally to site preparation across the site and not only in Phase 1a/b. If this is correct, please separate these statements from the Phase 1a/b heading and include them under Section E 'Site Preparation'.</p>	<p>The extraction sequence notes have been written to improve clarity and provide more operational details for each extraction phase.</p>
<p>40. Page 3 'Extraction Sequence' Notes H4c and H5c - There appears to be typos in these notes. They speak to the excavation occurring in an easterly direction however the page 2 drawing, arrows show excavation occurring in a westerly direction.</p>	<p>The extraction sequence notes have been written to improve clarity and provide more operational details for each extraction phase.</p>
<p>41. Page 3 'Extraction Sequence' Notes H5a, H6b, H7b - Please refer to Comment #30 and revise as necessary.</p>	<p>The extraction sequence notes have been written to improve clarity and provide more operational details for each extraction phase.</p>
<p>42. Page 3 'Extraction Sequence' Note H7a - Please clarify if the northern extent of Berm B - the portion that extends into the Extraction Area - is included in the rehabilitation of the "northwest corner of Phase 2" during Phase 4. Phase 3 appears to exclude this area</p>	<p>The extraction sequence notes have been written to improve clarity and provide more operational details for each extraction phase.</p>

<p>from extraction and Note F9 states that this area will be extracted when the berm is being decommissioned during final extraction/rehabilitation of the site. The timing of extraction of this area needs to be better integrated in the sequencing notes with consideration to maintaining necessary acoustic mitigation.</p>	
<p>43. Page 3 'Scrap and Recycling' Note L1 – This note reiterates components of the 'Control and Operation Standards' of O.Reg.244/97 and should be revised to remove duplication.</p>	<p>This note has been revised to use the wording in the Operational Standards of O.Reg. 244/97</p>
<p>44. Page 3 'Scrap and Recycling' Note L2 - Please revise this note to "No aggregate recycling activities will occur."</p>	<p>This change has been made</p>
<p>45. Page 3 'Noise' Note 1 – This note speaks to hours of operation. Please clarify whether any restrictions on days of the week are necessary.</p>	<p>The Noise Impact Study has been updated to address MNRF and JART comments and reflect the new ownership of R16 by Waterford Sand and Gravel. The revised Noise Impact Study Notes have been included on the Updated Site Plan.</p> <p>The quarry will operation Monday through Sunday. This wording has been added to Noise Note 1.</p>
<p>46. Page 3 'Noise' Note 5 – This note is not strictly a condition of operation and leaves it unclear whether the intent is to effect these changes without the need for a site plan amendment. Please revise to ensure this note does not call into question the need for Ministry approval before changes to extraction and processing operations, as outlined on the site plan, can occur.</p>	<p>The Noise Impact Study has been updated to address MNRF and JART comments and reflect the new ownership of R16. The revised Noise Impact Study Notes have been included on the Updated Site Plan.</p> <p>The wording of Noise Note 5 has been updated.</p>
<p>47. Page 3 'Noise' Notes 11, 12 & 15 – These notes appear to conflict with each other. Note 11 states that no processing may occur within Phase 1a whereas Note 12 speaks to processing equipment within Phase 1a that must be shielded from R16 and Note 15 restricts drilling while processing operations are occurring. The 'Berm and Noise Controls Schematic' on page 2 shows that processing is prohibited in this area. Please revise as necessary to remove any conflict.</p>	<p>The Noise Impact Study has been updated to address MNRF and JART comments and reflect the new ownership of R16. The revised Noise Impact Study Notes have been included on the Updated Site Plan.</p>
<p>48. Page 3 'Noise' Note 18 – This note is difficult to interpret. We believe the intent of the note is to impose the barrier requirement to shield R16 when the drill is operating east of the 300m black line on the 'Berm and Noise Control Schematic' or to shield R14 and R15 when it's operating west of this line. To ensure this note is clear to the reader, please revise it. It is recommended that labelling on the page 2 schematic be used to assist in this clarification.</p>	<p>The Noise Impact Study has been updated to address MNRF and JART comments and reflect the new ownership of R16. The revised Noise Impact Study Notes have been included on the Updated Site Plan.</p>
<p>49. Page 3 'Noise' Note 28 - The arch drawn on the 'Berm and Noise Control Schematic' to represent this restriction should be shortened to stay within Phase 4 so not to conflict with Noise Note 23.</p>	<p>This change has been made.</p>

50. Page 3 'Hydrogeology' Note "a" - This note refers to ongoing monitoring requirements, as recommended by the technical reports. Consistent with the Site Plan Standards, please include these requirements, and any corresponding monitoring well locations, on the site plan.	The Hydrogeology monitoring requirements and locations, as outlined in the Hydrogeology Report, have been added to the Site plan Notes Page 4 under the Hydrogeology Notes
51. Page 3 'Hydrogeology' Note "b" - This note requires a well interference plan however, this has not been included on the site plan. Please revise the site plan to include these requirements.	The wording for the Well Interference Plan from the Hydrogeology Report has been added to the Site Plan
52. Page 3 'Hydrogeology' Note 2 – This note references monitoring well GLL-9. Please include the location of GLL-9 on the Operational Plan page.	This well location has been included on the updated Site Plan. We note that this is well the same as MW9
53. Page 3 'Natural Environment – PSW' Bullet 1 – This note references a 'Figure 6' from the technical report and the requirement to mark a setback boundary prior to site preparation. Bullet 2 commits to maintaining a 30m undisturbed setback from the boundary of the PSW. However, this setback is located outside the proposed licenced area and can therefore not be enforced through the ARA site plan. As such, the Ministry requests that the applicant provide confirmation from the author that without these mitigations implemented in an enforceable manner, potential impacts to the PSW will be adequately mitigated as they are also referenced as necessary protection for the Significant Woodlands and Significant Wildlife Habitat (ref. SW Bullet 2 and SWH Bullet 2). Alternatively, please provide additional mitigation that can be enforced through the ARA site plan.	In consultation with Riverstone Environmental, the Natural Environment Site Plan notes have been revised to address MNR comments and improve interpretation and clarity. The revised Natural Environment Site Plan recommendations are included on the update Site Plan
54. Additionally, the location of the sediment control fencing should be identified on the drawing. The applicant is encouraged to consider the effectiveness of sediment control fencing located on the extraction limit when berm installation is proposed between the extraction limit and the PSW.	The location of the sediment and erosion control fencing has been added to the Site Plan. The berm located along the northern License boundary is no longer required.
55. Page 3 'Natural Environment – PSW' Bullet 7 – This note contains no commitment to make adjustments based on any recommendations made in these annual reports. Please include wording to address this.	This note has been revised.
56. Page 3 'Natural Environment – SW' Bullet 1 – This note states that a 30m protective buffer is required along the edge of the Significant Woodland however, this has not been implemented on the site plan. Additionally, language such as "current state" should be revised to "pre-extractive state".	This note has been revised to improve clarity.
57. Page 3 'Other Natural Features and Functions' Bullet 1 – Ambiguous language such as "should" must be revised to ensure the enforceability of the mitigation.	This wording has been revised.

<p>58. Page 3 'Archaeological' General Notes - These notes state that no extraction may occur within 20m of findspots where further assessments are outstanding. Consistent with these recommendations and other protected features on the site plan, excavation setbacks must be applied to these sites until such time as the Stage 3 report(s), and Stage 4 if deemed necessary, has been completed and accepted by MTCS. With a letter of clearance from MTCS, the licensee can apply for a site plan amendment to remove the setbacks. This aligns with general Archaeology note 2 on the draft site plan.</p>	<p>Further discussion and consultation has occurred with MCM regarding the required protection of the identified Archaeological Sites. MCM has provided input into the updated Site Plan notes and Archaeological site protections.</p> <p>Included in the Archaeology Site Plan notes, developed in consultation with MTCS, is the following wording in Archaeology Note 1.a.iii</p> <p><i>Approval has first been obtained from the Ministry of Natural Resources and Forestry (MNRF) following review by MCM and the entry of the report into the Ontario Public Register of Archaeological Reports and additional further considerations and consultation considered necessary by MNRF including, but not limited to, the Crown's Duty to Consult</i></p>
<p>59. Page 3 'Archaeological' Stage 1 Notes 1b and 1c – These notes speak to implementing restrictions related to excavation setbacks on the ARA licence. Please provide an explanation for why these conditions are desired on the licence document.</p>	<p>The revised Archaeology notes on the Site Plan have been developed in consultation with MCM.</p>
<p>60. Page 3 'Dust' Notes - Consistent with AR 2.00.03, requirements outlined in O.Reg.244/97 should not be duplicated as site plan notes. Please revise the 3 bullets that duplicate Section 0.12 of O.Reg. 244/97.</p>	<p>Including the Operational Requirements (s.13) of O.Reg 244/97 on the Site Plans makes certain that the Licensee is aware of these requirements and ensures operation of the quarry in compliance with the Control and Operational Rule. We would be happy to further discuss this with MNRF staff.</p>
<p>61. Page 3 'Variations from Control and Operation Standards' - The Ministry's support for the variances listed are subject to the resolution of Comments #7 and #9. Additionally, further variations outlined on this plan require inclusion in this table in order to receive approval.</p>	<p>See responses to comments #7 and #9. The Variations from Control and Operations Standards Table has been updated to include all required variations.</p>
<p>Rehabilitation Plan</p>	
<p>62. Page 4 Drawing – Until the archaeological find spots have been adequately assessment and cleared for removal by MTCS, the rehabilitation plan drawing must consider these areas and their setbacks. Otherwise, the drawings create a conflict between the site plan pages. Archaeology notes on page 2 commit to amending the site plan once the temporary exclusion areas, and their corresponding setbacks/protection buffers, are cleared for removal. The rehabilitation drawing can be amended at this time as well.</p>	<p>We have revised the Archaeological Site Protection requirements shown on the Site Plan in consultation with MCM. MCM will review the revised Stage 1 and 2 Archaeology Reports that includes the updated ARA Site Plans and provide a Clearance letter</p> <p>The following note is included on Page 4, Note 5 (Archaeology)</p> <p><i>"1b) Should the completed Archaeological Assessments for the Archaeological Sites identified in note1.a) result in a change to the Quarry Operations Plan or Rehabilitation Plan, than an Aggregate Resources Act Site Plan Amendment shall be required to update the Site Plan. An ARA Site Plan Amendment shall be required for any changes to the limit of extraction as shown on the Site Plan drawing."</i></p>

<p>63. Page 4 'Slopes and Grading' Note C1 – This note refers to the use of imported material. Please clarify whether this refers to excess soil, as noted in Note C2, or whether other imported aggregate material is intended for use in rehabilitation.</p>	<p>This note has been updated to reference “excess soil” instead of “imported material”</p>
<p>64. Page 4 ‘Slopes and Grading’ C2 – This note proposes the importation of excess soil for use in rehabilitation. As noted in an earlier comment regarding the proposal to remove native topsoil and overburden from the site for use on Licence #4464, these two proposals cannot be supported in tandem as one requires demonstration that there is excess native material for rehabilitation and the other requires demonstration that there is inadequate native material for rehabilitation.</p>	<p>Existing Licences 4464, 607541 and the new proposed extension will be physically and operationally connect and operate as one larger quarry footprint.</p> <p>The Site Plans for Licence 4464 and Licence #607541 include permission to import excess soil for rehabilitation purposes.</p> <p>All three sites have limited amounts of topsoil and overburden available for rehabilitation purposes as the bedrock is located at, or very close to, the ground surface.</p> <p>To ensure the efficient and minimal movement of materials, topsoil and overburden should be permitted to move across licence boundaries for use in berm construction, temporary stockpiling, or for use in progressive rehabilitation. For example, the berm that is presently located along the western Licence boundary of Licence #4464 will be used to construct the required berms associated with the proposed quarry extension. In turn, the overburden and topsoil stripped from Phase 1 of the quarry extension can be used in the progressive rehabilitation of the existing quarry.</p> <p>Based on the amount of overburden and topsoil available within the footprint of the proposed quarry extension, there will be a deficit of about 750,000m³ need for progressive and final rehabilitation.</p>
<p>65. Should it be demonstrated that inadequate material exists without removal to Licence #4464, the notes listed below must replace those current drafted on the site plan for the Ministry to support this request. Additionally, the applicant must provide a total amount of soil that may be imported for use in rehabilitation during the life of the quarry.</p> <p>1) Excess soil, as defined in Ontario Regulation 244/97 may be imported to this site to facilitate the following rehabilitation:</p> <ul style="list-style-type: none"> i. Creation of X:1 slopes (Insert: sloping ratio described in rehabilitation notes) ii. qTop dressing to establish vegetation <p>2) Liquid soil, as defined in Ontario Regulation 406/19 under the Environmental Protection Act, is not authorized for importation to the site.</p>	<p>The Rehabilitation Plan has been updated to add the updated Excess soil notes, including a cumulative total amount of excess soil that may be imported to this site for rehabilitation purposes is 750,000m³.</p>

<p>3) The quality of excess soil imported to the site for final placement must be equivalent to or more stringent than the applicable excess soil quality standards as determined in accordance with Ontario Regulation 244/97 as amended from time to time and must be consistent with the site conditions and the end use identified in the approved rehabilitation plan.</p> <p>4) Where a qualified person is retained or required to be retained in accordance with Ontario Regulation 244/97, the quality, storage, and final placement of excess soils shall be done according to the advice of the qualified person.</p> <p>5) Excess soil imported to facilitate rehabilitation as described on this site plan shall be undertaken in accordance with Ontario Regulation 244/97 under the Aggregate Resources Act, as amended from time to time.</p> <p>6) The cumulative total amount of excess soil that may be imported to this site for rehabilitation purposes is [Insert amount] m³.</p>	
<p>66. Page 4 'Shallow Shoreline Area Habitat Creation' Note D2 - Please ensure language is revised to create enforceable commitments. For example, the placement of rubble along the shoreline to create basking areas is currently only recommended.</p>	<p>This has been updated as requested.</p>
<p>67. Page 4 'Shallow Shoreline Area Habitat Creation' Note D3 Bullet 1 - Please clarify that only native, non-invasive species that have started to regrow should be maintained.</p>	<p>This wording has been added. The detailed habitat creation notes have been re-written in consultation with the Region of Niagara Joint Agency Review Team.</p>
<p>68. Page 4 'Proposed Vegetation and Rehabilitated Features' Note D4 – This note commits to no alteration or soil disturbance within the archaeological sites for permanent exclusion but that continued agricultural activities are expected within these areas. To ensure that there are no conflicts between notes on the site plan nor with other legislation, please confirm, and clarify as necessary on the site plan, that disturbance from agricultural activities is permissible. Without further information on the type of agricultural activities occurring and what disturbance is expected, it is the Ministry's opinion that continued agricultural activities may make the commitments on the site plan difficult to enforce.</p>	<p>This has been clarified in the revised Archaeology and rehabilitation notes.</p>
<p>Cross Sections</p>	
<p>69. Page 5 Drawings - The 'Rehabilitated Conditions' cross sections require updating with consideration to the revisions requested in the Ministry's comments. Further, the depiction of the groundwater table in the unextracted portions should be reviewed for accuracy.</p>	<p>No changes to the limit of extraction have been made.</p> <p>The groundwater table elevation on the rehabilitated cross-sections has been updated</p>

<p>70. Page 5 Side Slope diagrams refer to numbered conditions (e.g. 'Side Slope Condition 1a') however, these do not appear to relate to notes elsewhere on the site plan. Additionally, the labelling for the final floor elevation should be removed from these diagrams so not to impact the enforceability of other notes on the site plan. Please revise as necessary.</p>	<p>The Side Slope diagrams on the cross-sections page relate to the Rehabilitation Plan. There is not enough room on the Rehabilitation Plan to include these side-slope diagrams. We have updated the labels on the diagrams and the Rehabilitation Plan drawing to make this more clear.</p> <p>The labelling of the final floor elevations on the diagrams correctly represents the pit floor elevations as shown on the site plans. Therefore, we do not foresee any enforceability issues.</p>
<p><u>Summary Statement</u></p>	
<p>71. The 'Planning Justification Report and ARA Summary Statement,' prepared by MHBC Planning, Urban Design & Landscape Architecture, and dated June 2022, has been reviewed in comparison to the Aggregate Resources of Ontario: Technical Reports and Information Standards and in consideration of relevant provincial legislation and policies and associated technical guidance material.</p> <p>Please provide written confirmation from OMAFRA that the area does not contain prime agriculture lands or their support for the rehabilitation approach to not revegetate back to prime agriculture outside of the pond area.</p> <p>Written confirmation from Township of Wainfleet and the Regional Municipality of Niagara for any necessary Official Plan and Zoning Amendments is required prior to issuance of a licence.</p>	<p>Written confirmation has been provided by OMAFRA indicating that the area is not considered a prime agricultural area and that they do not have any comments on the ARA Application. The email circulated to MHBC was provided to MNRF on January 27, 2023</p> <p>We are working with the Region of Niagara and the Township of Niagara to obtain the necessary Official Plan and Zoning Amendments. When adopted, a copy of the amendments will be provided to MNRF.</p>