

Proposed Site Plan Amendment for the Burlington Quarry
JART COMMENT SUMMARY TABLE – New Items Raised in the Review of the Proposed Site Plan Amendment

Please accept the following as feedback from the Burlington Quarry Joint Agency Review Team (JART). Fully addressing each comment below will help expedite the potential for resolutions of the consolidated issues raised by JART with the proposed site plan amendment. **Additional, new comments may be provided once a response has been prepared to the comments raised below and additional information provided.**

	JART Comments (December 8, 2021)	Reference	Source of Comment	Applicant Response	JART Response
Agricultural Impact					
1.	No information with respect to a revised Agricultural Impact Assessment has been provided as a result of the Site Plan Amendment Application. Mr. Zeman indicated that such a report would be available, but as yet, no additional information concerning a revised AIA has been received.	General	Ag Plan Limited		
2.	There is no summary, provided on a disciplinary basis, of changes relevant to the previous versus proposed Site Plan Amendment Application. The principal source of information used presently are 2 maps/drawings included with the application called respectively "Progressive & Final Rehabilitation Plan" and "Cross Sections".	General	Ag Plan Limited		
3.	The Final Rehabilitation Plan shows an area rehabilitated for an agricultural after use of approximately 14 ha where that area can only be accessed from one location given that it is surrounded by a proposed lake on 3 sides. Given the relative size and/or isolation of the southern agricultural lands being removed from production by the proposed pit expansion, there is nothing upon which I can base an understanding of the impact relative to size and isolation of the rehabilitated lands that may or may not have been predicted/described by MHBC.	General	Ag Plan Limited		
4.	The cross sections diagrams appear to show different side slopes at the edges of the agricultural rehabilitation area relative to the plan view (with contours presented) within the Amendment. Slopes can potentially change soil capability and there is no information about relative slope and capability of the 14 ha rehabilitated agricultural area presented by the consultants working on behalf of Nelson Aggregate.	General	Ag Plan Limited		
5.	The Amendment does not include a description of the soil materials used to form the "island" proposed as agricultural land. Neither does the amendment include reference to hydrogeology and hydrology likely to be present post-rehabilitation relative to the soil materials extant in the proposed southern expansion area. Therefore, probable soil drainage class, which affects soil capability for agriculture, cannot be ascertained.	General	Ag Plan Limited		
6.	Generally and/or specifically, the Amendment does not provide an indication of how that amendment addresses agricultural impacts relative to the southern and western components of the proposed Nelson Aggregate expansion.	General	Ag Plan Limited		
7.	Mr. Zeman, during the site field trip, suggested that OMAFRA had comments with respect to the proposed Nelson Aggregate expansion. OMAFRA's comments and/or suggestions have not been made available.	General	Ag Plan Limited		

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Hydrogeology					
1.	It has not been demonstrated that there will be no impacts to the Medad Valley by the excavation of the western extension. This concern has been raised through the JART process for the expansion proposal. The specifically concern is regarding groundwater flows to the valley, principally via springs along the base of the escarpment. The west face of the expansion would be within 200 to 400 m of the valley wall (if approved) greatly limiting the size of the aquifer currently feeding the springs.	General	Daryl Cowell		
2.	The computer model shows increased streamflow to nearby streams and drainage channels under RHB2 as illustrated in Figure 8.106 with the exception of the Tributary to Willoughby Creek and the West Arm of the West Branch of Grindstone Creek. It is most likely that the predicted increase in streamflow from RHB2 more closely resembles the conditions that existed prior to the excavation of the existing quarry. The decrease in streamflow is attributed to cessation in pumping of quarry discharge to the tributary to Willoughby Creek and the West Arm of the West Branch of grindstone Creek. It is not clear that the modelled streamflow to the Tributary to Willoughby Creek has accounted for the removal of the weir structure controlling flow to the Tributary to Willoughby Creek. The increase in predicted streamflow from RHB2 does not appear to have been considered as a net benefit with respect to the rehabilitation scenarios.	General	Norbert Woerns		
3.	The preferred rehabilitation scenarios include both the existing quarry operations and the proposed expansion areas. It however does not identify the impacts of the existing quarry as impacts or recognize cumulative impacts of both the existing quarry operations and the proposed expansion. This analysis has taken the existing conditions, which include the existing quarry impacts, as 'baseline condition' not recognizing the existing quarry impacts. No where in the documentation is there a discussion of existing quarry impacts or cumulative impacts. This is not consistent with Halton Region Official Plan (June 19, 2018) - Part III, Section 110 (8) (c.1) where the proposal to designate new or expanded Mineral Resource Extraction Areas is required to give consideration to 'cumulative impacts of the proposal and other extractive operations in the general area.'	General	Norbert Woerns		
4.	In addition, the proposed preferred rehabilitation Scenario RHB1 is not consistent with Halton Region Official Plan Policy 110, (7.2) (d)(C) ([i] 'Priority for restoration or enhancements to the Greenbelt and/or Regional Natural Heritage Systems through post-extraction rehabilitation shall be based upon the following in descending order of priority: [i] restoration to the original features and functions on the areas directly affected by the extractive operations,')	General	Norbert Woerns		
5.	The application for quarry expansion has not considered 'financial impact to Regional infrastructure', as per Halton Region Official Plan, Sections 110 (7.6), Sections 187(10)(q), and the 'risk of financial public liability during and after extraction where continuous active on-site management is required', Sections 110(8)(e). This is relevant, should the proposed mitigation measures for interference with private wells not be feasible and a municipal water system may be required. The application therefore cannot be considered to be complete.	General	Norbert Woerns		

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6.	The proposed final rehabilitation plan, Sheet 3 of 4, shows vertical quarry walls along the south side of the existing quarry adjacent to 2nd Sideroad directly opposite a portion of the proposed South Expansion area. The potential for enhanced seepage through the bedrock from the rehabilitated south quarry expansion rehabilitated lake and potential impacts for slope stability of the exposed quarry face and/or on the back sloped areas of the existing quarry face have not been addressed. This does not meet Halton Region Official Plan policy 110 (7.6) and 187(10)(n) 'slope stability'. The application is therefore incomplete.	General	Norbert Woerns		
7.	The requirement for ongoing pumping to maintain artificially low groundwater levels as part of the proposed rehabilitation plan RHB1, is contrary to Halton Region Official Plan policy 110 (8.2) which states ' Discourage the use of adaptive management plans or similar measures that will require continuous or perpetual active on-site management post rehabilitation'.	General	Norbert Woerns		
8.	A discussion is lacking with respect to the approved closure plan for the existing quarry and the rationale for the existing closure plan. As noted in comment 11, the benefits of increased stream flow and the higher groundwater levels to support stream discharge under RHB2 do not appear to have been considered in the selection of the preferred rehabilitation scenarios.	General	Norbert Woerns		
9.	As the issue of potential drinking water quality impacts on down-gradient wells has not been addressed, a complete assessment of maintenance requirements for the preferred rehabilitation scenario cannot be completed. This leaves the question of whether a financial burden on the public will result. See comment 11 and 21.	General	Norbert Woerns		
10.	<p>The revised rehabilitation plan raises some questions as follows:</p> <ul style="list-style-type: none"> - There are inconsistencies in the lake configuration between the After Use Vision, Figure 5, in the Progressive and Final Rehabilitation Monitoring Study by MHBC April 2020 and the revised site plans. Please clarify. - It should be confirmed that the dashed green line at the south end of Section C-C1 at the quarry excavation edge represents an interim surface and that the final grade will be vertical quarry face adjacent to 2nd Side Road as indicated on Sheet 3 of 4. - It is not clear why the existing overburden islands as shown on the cross-sections (Sheet 4 of 4) are essentially left in place with some grading rather than using these overburden materials for fill in the bottom of the excavation thus lessening the need for imported fill materials. This is contrary to Note 2 under Rehabilitation Notes on Sheet 3 of 4. 'Waste rock, overburden topsoil and any MECP approved excess soil will be used to develop suitable safe slope angles as shown. If insufficient overburden and topsoil exists on the site, the owner reserves the right to import excess soil from offsite sources. Clarification is required. - It is not clear how surplus storm water will be conveyed within the rehabilitated quarry and in particular, from the eastern most lakes to the sump areas. Clarification is required. <p>(con't)</p>	General	Norbert Woerns		

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	- The Sun Oil Pipeline, a significant potential source of contamination to inflowing quarry surface and groundwater, is not shown on Cross Section C-C1 Sheet 4 of 4. There is also no discussion of how to deal with a potential pipeline rupture and prevention of contamination of the northwest sump.				
11.	An analysis of the financial implications of maintaining the preferred rehabilitation scenario RHB1 has not been completed. Should this rehabilitation scenario be approved, there is no confirmation that there will be no financial burden on the public assuming that the lands will be transferred to a public agency as encouraged by Halton Region Official Plan, Section 110(7.2) (d)(E). See comment 11.	General	Norbert Woerns		
Progressive and Final Rehabilitation Plan					
1.	The proposed park and lake do not change the suitability of the site to support terrestrial ecology much from a terrestrial ecology perspective, as I understand that the terrestrial portion of the site would likely mainly be agricultural and manicured parkland.	General	North-South Environmental		
2.	The smaller, shallower proposed lake with a more gradual shoreline gradient could foster the development of wetland plants more than the deep lake would have, which would in turn result in more function for wildlife. However, this would depend on the water depth and clarity, among other factors. It is premature to be able to say what the final functions would be, but if there were the appropriate upland natural heritage features in the vicinity of the lake, the lake was well-vegetated, and there were other connections to suitable habitat, functions could include provision of habitat for birds, breeding amphibians and turtles.	General	North-South Environmental		
3.	The Progressive and Final Rehabilitation Plan (Drawing No. 3 of 4) included with this Site Plan Amendment application, shows the rehabilitation of the proposed west extension, and the review of this plan has still not been completed through the JART process. We also note inconsistencies between the Progressive and Final Rehabilitation Plan submitted with this Site Plan Amendment application and that included with the proposed Burlington Quarry expansion applications. Specifically, the site plan within this application does not show the infiltration ponds within the proposed west extension, it does not include recently updated wetland and woodland boundary staking limits, nor does it show a rehabilitation plan for the proposed south extension, amongst other inconsistencies.	Rehabilitation	Conservation Halton		
Transportation					
1.	Confirm that the revision of existing extractions limits and additional permissions identified in the proposed Site Plan Amendment will not modify the Quarry Traffic identified by the Burlington Quarry Extension Traffic Report prepared by Paradigm for existing and future conditions. If that is not the case, the Traffic Report should be modified in accordance.	General	CIMA Canada Inc.		
2.	Confirm that the new entrance/exit access ramp adjacent to No. 2 Sideroad to transport material from the south extension into the existing quarry is the same that the one identified by the Burlington Quarry Extension Traffic Report and reviewed by True North Safety Group. Any changes to the proposed location or number of accesses should be reflected in a revised Traffic Report and Safety Review.	General	CIMA Canada Inc.		

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Surface Water					
1.	Going from a deep lake to a shallow lake will change the planned water elevations – what are the impacts to the pumping regime (during filling, post filling)?	General	Wood Environment & Infrastructure Solutions		
2.	The dewatering in the shallow lake vs. the deep lake alternative will require pumping (of some form) in perpetuity – there needs to be an agreement and financial securities in place from Nelson to allow for this to carry on forever under a perpetual agreement.	General	Wood Environment & Infrastructure Solutions		
3.	In the event pumping fails and the adjacent lands are actively used parkland there could be damage to the area and any infrastructure (passive or active), hence provisions need to be made in the design for emergency operations	General	Wood Environment & Infrastructure Solutions		
4.	What information or details are available with respect to the proposed berms that will hold back lake/pond water in the final rehabilitated state?	General	Halton Region		
Rehabilitation Notes and Operational Items					
1.	The proposed amendment speaks to the integrated nature of the existing and proposed (if approved) operation. Various notes on the amended (current operation) site plan should reflect the integrated nature of the operation desired by the proponent. This includes, but not limited to, capping the maximum tonnage across all licences to the maximum sought by the proponent in the proposed application.	General	Halton Region		
2.	Hours of operation for the facility should be modernized. Operations including loading, shipping, and asphalt plant operation should not be permitted 24 hours a day.	General	Halton Region		
3.	With respect to the uses as listed in Rehabilitation Note 1(b), the identification of any of those uses needs to occur under the applicable land use planning regime. Additional approvals may be required to permit any proposed after-use.	Rehabilitation notes	Halton Region		
4.	On Rehabilitation Note 1(c), we are not aware of any specific commitment having been made, nor of any public authority which has agreed to take the transfer of the subject lands. Given that this note does not appear to be factually correct, it should be eliminated.	Rehabilitation notes	Halton Region		
5.	The wording of Rehabilitation Note 10 suggests that it is conditional on some future decision. Our understanding is that the proposed site plan amendment would require the site to be maintained in a dewatered state. This should be confirmed and any associated requirements should be mandatory and not conditional.	Rehabilitation notes	Halton Region		
Niagara Escarpment Plan					
1.	Any approval of an amendment to a Site Plan under the Aggregate Resources Act being contemplated would be premature as the lands are subject to NEC Development Control established by O.Reg 826/90, as amended. An NEC Development Permit Application will need to be processed: a Development Permit Application for the proposed Site Plan Amendment has not been received by the NEC.	General	NEC		

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2.	Should a Development Permit Application for the proposed Site Plan Amendment be received by the NEC, approval of this amendment to the Site Plan for the existing quarry would be viewed as being premature, given the proposed amendments are predicated on approval of the related application under the Aggregate Resources Act for a Class A, Category 2 (Quarry Below Water) License currently under review, and subject to separate Niagara Escarpment Plan Amendment and Development Permit applications.	General	NEC		
Conservation Halton					
1.	As Conservation Halton staff is still reviewing the proposed Burlington Quarry expansion applications through the JART process, for which licence permissions are still being sought, all detailed comments will be provided through that process. A decision should be made on the expansion applications before the Site Plan Amendment application is approved, so as to not predetermine or bias decisions on the expansion applications. Potential natural hazard, natural heritage and water-related impacts related to the existing operation and proposed integrated expansion areas have not been fully determined, nor has an updated adaptive management plan been finalized based on those impacts.	General	Conservation Halton		
2.	The Site Plan Amendment application may need to be further revised, based on the review of the proposed Burlington Quarry expansion applications. As such, we recommend that decision on this application be deferred until a decision has been made on the proposed expansion applications.	General	Conservation Halton		