

**APPENDIX 1: PLANNING JUSTIFICATION REPORT & ARA SUMMARY STATEMENT COMMENTS**

UPPER'S QUARRY

DATE: April 2024

	Comment	Responder	Applicant Response
<b>Appendix 1: Planning Justification Report &amp; ARA Summary Statement Comments, Regional and City planning staff</b>			
6.	<p>Section 4.0 – offsite lands owned by the applicant that are proposed to be used for restoration / enhancement should be designated and zoned as such in the Regional and Local planning documents. This is required to ensure long-term protection of these lands. <b>Comment not addressed. A mechanism to ensure the long-term protection for any off-site lands proposed for restoration/enhancement is required.</b></p>	MHBC / Stantec	<p>We have confirmed with MNRF that off-site mitigation is acceptable in this case given: (i) the proposed mitigation is in close proximity to the feature being mitigated, (ii) Walker owns the lands where mitigation is proposed and (iii) the associated Notes incorporated onto the ARA Site Plans. MNRF have not indicated any concern with off-site mitigation in their comments on the submission.</p> <p>Off-site mitigation can be regulated and enforced where it is required on the ARA Site Plans. Section 15 of the Aggregate Resources Act reads: “Every licensee shall operate the licensee’s pit or quarry in accordance with this Act, the regulations, the site plan and the conditions of the licence”. Accordingly, by incorporating the requirement for mitigation on lands outside of the licence, or any other component of the proposed quarry, through reference on the ARA Site Plans, the failure to comply or adhere has severe legally enforceable consequences to a licensee who fails to comply. Walker would not transfer ownership of land where mitigation is proposed if it would put at risk their licence and the ability to meet the obligations of the ARA Site Plan. The Ministry, under Sections 20 and 22 of the ARA, has the ability to revoke, for a specified period of time, or suspend, a licence for any contravention of the site plan or the site plan notes including notes for off-site mitigation. Furthermore, the Provincial Standards Manual (Regulation 244/97) requires that each operator file annual “Compliance Assessment Reports” by September 30 of each year, to document compliance on any matter, the operator must rectify the non compliance within 90 days.</p> <p>For example, this approach aligns with Walker’s Duntroon Quarry Expansion Site Plans which went through a very detailed and long hearing process before a Joint Board/Panel, where this was done and approved and which has lead to very successful ecological enhancement program which both Walker and Stantec have been involved in together since the quarry was approved. There are many examples that exist but this is particularly relevant given that Walker has been involved in this decision and off-site mitigation directly. In the Duntroon case, earlier versions of the application proposed by Walker had a larger licence footprint that included all of the mitigation lands and the MNRF requested that the licence boundary be reduced. It was MNRF’s preference to include the off-site mitigation notes on the Site Plans but keep the properties not being extracted outside of the licence boundary (which was ultimately approved).</p> <p>With that said, in order to address the Region’s comments relative to long-term protection, we have revised the proposed rehabilitation and have added notes to the Site Plans as part of our resubmission to address this comment further, including:</p> <ul style="list-style-type: none"> <li>i.) a revision to Drawing 3 of 6, Note B. Initial Site Preparation to add a new Note 1 and renumber remaining Notes stating: “A Conservation Easement shall be placed on the lands identified for mitigation plantings that are situated outside of the proposed licence area in perpetuity and such Easement shall be registered on the lands prior to the commencement of Phase 1 (1A and 1B) to secure protection of the lands for conservation purposes”; and</li> </ul>

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			<p>ii.) revisions have been made to Drawing 3 of 6 to provide more clarity that plantings of off-site mitigation will be undertaken as early as possible and any on-site mitigation will be undertaken in earlier phases to allow for reforestation and natural succession to be established before the licence is surrendered.</p> <p>See red-lined Aggregate Resource Act Site Plans enclosed for additional detail.</p>
7.	<p>Section 4.3 – in this section and throughout the report and other aspects of the application a distinction is attempted to be made between significant woodlands that meet ‘regional criteria’ and significant woodlands that meet ‘provincial criteria’. The Regional Official Plan does not make a distinction of this type. A woodland that meets the test of ‘significance’ is a ‘significant woodland’ and the policies of the Regional Official Plan apply. <b>Comment not addressed. This issue was discussed in significant details as part of a technical meeting that was held on October 27, 2023.</b></p>	MHBC / Stantec	<p>We are in agreement that the woodlot is considered ‘significant’ by the Regional Official Plan for the purpose of applying Regional Official Plan policies.</p> <p>Under the PPS 2020, the definition of ‘significant’ is as follows:</p> <p>Significant: means</p> <p>b) in regards to woodlands, an area which is ecologically important in terms of features such as species composition, age of trees and stand history; functionally important due to its contribution to the broader landscape because of its location, size or due to the amount of forest cover in the planning area; or economically important due to site quality, species composition, or past management history. These are to be identified using criteria established by the Ontario Ministry of Natural Resources and Forestry”;</p> <p>Therefore, for purposes of determining consistency with PPS policy, ‘significance’ relative to PPS policies is evaluated by applying criteria established by the MNRF. The criteria established by the MNRF is contained within the Natural Heritage Reference Manual. Based on Stantec’s evaluation of the criteria set out in the NHRM, the 2.0 ha woodlot would not be considered ‘significant’ by definition under the PPS.</p> <p>With that said, the proposal as revised would be consistent with the PPS even if the woodlot was considered ‘significant’ by definition under the PPS, as follows:</p> <ol style="list-style-type: none"> <li>1. We have revised the rehabilitation plans to initiate off-site mitigation plantings as early as possible and enhanced the amount and location of proposed mitigation to allow for additional ecological enhancement to compensate and mitigate the proposed removal of the 2.0 ha woodlot through rehabilitation (according to Policy 2.5.3.1 of the PPS).</li> <li>2. In the case of aggregate resource applications, Policy 2.5.3.1 of the PPS also needs to be considered in addition to Policy 2.1.5 as well as the definition of “significant”. Therefore, when considering ‘mitigation for negative impact’ in this case, the rehabilitation and the fact that the loss will be temporary is to be taken into account: “Whether the mitigation measure is called reforestation, afforestation, replacement, net gains or compensation (in this case) is not important. The PPS test is whether the mitigation activity being proposed has the ability to remove or ameliorate any negative impacts that ‘threatens the health and integrity of the natural features or ecological functions for which an area is identified and whether the mitigation measures will result in enhanced beneficial effects’”.</li> <li>3. Through the revised EIS, Stantec demonstrates that it meets this test through proposed off-site on on-site mitigation including the consideration of the timing and location of mitigation relative to the timing and location of removing the on-site feature. The updated EIS recommendations for enhanced mitigation have been incorporated onto the enclosed Site Plans.</li> </ol> <p>This approach is consistent with Policies 2.1.5.d), 2.1.8 and 2.5.3.1 of the PPS.</p> <p>*Office of Consolidated Hearings Decision, Case No. 08-094, pgs. 58 and 59</p>
30.	<p>Draft Regional Official Plan Amendment – offsite lands that are proposed for replacement / restoration should be re-designated as appropriate natural area designations to ensure their long-term protection. <b>Comment not addressed. A mechanism to ensure the long-term protection for any off-site lands proposed for restoration/enhancement is required.</b></p>	MHBC	<p>Long term protection of mitigation and restoration/enhancement proposed outside of the ARA licence boundary will be secured through the following mechanisms, which is further discussed in the above response to Comment No. 6:</p> <ul style="list-style-type: none"> <li>• Notes on the ARA Site Plans, which are regulated and enforced through the Aggregate Resources Act;</li> </ul>

	Comment	Responder	Applicant Response
31.	Local Official Plan Amendment - offsite lands that are proposed for replacement / restoration should be re-designated as appropriate natural area designations to ensure their long-term protection. <b>Comment not addressed. A mechanism to ensure the long-term protection for any off-site lands proposed for restoration/enhancement is required.</b>	MHBC	<ul style="list-style-type: none"> <li>A Conservation Easement will be required to be registered on title of the lands identified for mitigation plantings that are situated outside of the proposed licence area in perpetuity and such Easement shall be registered on the lands prior to the commencement of Phase 1 (1A and 1B).</li> <li>Plantings (outside of the licence boundary) will be undertaken as early as possible and any on-site mitigation will be undertaken at the same time as site preparation and prior to the removal of the on-site woodlot south of the unopened road allowance. This will allow for reforestation and natural succession to be well established before the licence is surrendered.</li> </ul> <p>An amendment to the NROP, City OP or City Zoning By-law is not necessary or appropriate to permit tree planting as a use. Plantings or ecological enhancements are typically addressed and secured through Site Plan Control, which in this case, is under the jurisdiction of the MNRF. The Conservation Easement requirement and required plantings are tied to phasing and the Site Plans which are subject to annual "Compliance Assessment Reports" and other requirements of the Aggregate Resources Act.</p>
32.	Local Zoning By-Law Amendment - offsite lands that are proposed for replacement / restoration should be re-zoned as appropriate natural area designations to ensure their long-term protection. <b>Comment not addressed. A mechanism to ensure the long-term protection for any off-site lands proposed for restoration/enhancement is required.</b>	MHBC	
<b>New Comment</b>			
1.	<b>It is recommended that the Planning Justification Report speak to relevant clauses in Part 2 of the Planning Act, in particular clause (s), the mitigation of gas emissions and adaptation to a changing climate.</b>	MHBC	A new Section has been added to the Planning Justification Report to address Section 2 of the Planning Act.
2.	<b>It is recommended that lands owned by the applicant in the City of Niagara Falls, and adjacent to the site, be used for off-site restoration/enhancement, to supplement or to replace lands in the City of Thorold. In particular, additional plantings on 5584 Beechwood Road may assist to screen residents from the quarry and extend to natural features on this site.</b>	MHBC / Stantec	<p>Stantec reviewed alternative locations to supplement or to replace off-site mitigation on lands in the City of Thorold.</p> <p>The proposed location for off-site mitigation has been altered to: (i) shift mitigation plantings towards the south end of Walker's property in the City of Thorold (on the west side of Thorold Townline Road) and (ii) provide for additional plantings on Walker's property immediately north of the proposed quarry (on the east side of Thorold Townline Road).</p> <p>These areas were selected for the following reasons:</p> <ul style="list-style-type: none"> <li>i) these areas are in close proximity to the 2.0 ha woodlot feature proposed to be removed, providing for a continuation of habitat;</li> <li>ii) greater linkage opportunity will be established with the watercourse realignment corridor;</li> <li>iii) given the size of the existing woodlot west of Thorold Townline Road, interior habitat can be established which does not exist today (by definition).</li> </ul> <p>With that said, we have reconfigured the proposed off-site mitigation on the employment lands in the City of Thorold so that plantings will be situated along the southerly portion of Walker's property in the City of Thorold, optimizing land availability for future employment development opportunities north of the Trans-Canada Pipeline corridor and adding a continual linkage between the future realignment corridor and the larger and expanded woodlot feature to the west.</p> <p>As identified in the VIA, additional large stock plantings are proposed along the west side of Beechwood Road within the setback and within the remnant triangular-shaped lands south of the hydro corridor.</p>

**JOINT AGENCY REVIEW TEAM COMMENTS (NOVEMBER 14, 2023) RE: 2nd SUBMISSION OF TECHNICAL MATERIALS**

**APPENDIX 2: AGGREGATE RESOURCE ACT SITE PLAN COMMENTS**

UPPER'S QUARRY

DATE: April 2024

	Comment	Responder	Applicant Response
<b>Appendix 2: Aggregate Resource Act Site Plan Comment, Member of JART and Aggregate Advisor</b>			
4.	G. Technical Reports - How does MNRF suggest that any revisions or addendums to the technical reports be reflected on the site plans? Perhaps a note would be helpful to indicate that the application submissions is based on these reports, but note "as revised through agency and peer reviews"? <b>Comment not addressed. The Site Plans currently reference the reports provided with the initial submission to MNRF. The suggestion/question from JART was whether the applicant would revise the reference to include a note acknowledging the revisions or updates to the reports through the peer review process.</b>	MHBC	As with the last submission, dates of reports (or new reports are added) together with revised recommendations and any changes prompted by those revised recommendations are updated with every resubmission (see red-lined Site Plans from last submission and this submission). For ease of reference, please see Drawing 1 of 6 for list of technical reports and Drawing 4 of 6 for Report Recommendations.
6.	The notes indicate that the asphalt plant will remain in Phase 1A through the life of the quarry, however, the sequence of operations and rehabilitation show that this area will be extracted and will be part of the final pond area. Can you provide further details on the asphalt plant area and the apparent inconsistency with the extraction and rehabilitation plans? Would the area around and under the plant be extracted as a final phase? Would the plant be relocated? Does it make more sense to have the plant in Phase 5? <b>Comment not addressed. During the JART planner's meeting, the applicant explained that the asphalt plant would be relocated through the course of the extraction so that below water excavation can occur in the location where the plant is shown on the drawing. Please include a note to indicate that the plant will be relocated.</b>	MHBC	That is not the case. The asphalt plant is brought onto the site after extraction is complete in Phase 1A/1B and after the processing plant is relocated to Phase 2A. The asphalt plant is in a fixed location on the quarry floor (approximately 30 m below grade) of Phase 1A until such time that all extraction is complete. The asphalt plant is then removed from the site prior to final rehabilitation. The proposed location of the asphalt plant, as shown on the Site Plans, provides the least potential impact on all surrounding sensitive receptors.  Please see: <ul style="list-style-type: none"> <li>• Drawing 2 of 6, I Equipment and Processing, Note 4</li> <li>• Drawings 2, 3 and 4 – illustrating "Asphalt Plant Area" in Phase 1A</li> <li>• Drawing 5 of 6, Final Rehabilitation, G. General, Note 1</li> </ul>
10.	Page 4 – Report Recommendations - Monitoring Program. Is it anticipated that the monitoring program will be developed prior to ARA or municipal approvals? If yes, suggest the Site Plans be updated to reflect the program that is developed through the review of the applications. <b>Response provided confirms that there may be additional revisions/additions to the Site Plan notes related to the monitoring program.</b>	MHBC	General monitoring parameters have been set out by the respective technical reports.  Detailed compliance and performance monitoring program requirements will be further developed in conjunction with MNRF together with all appropriate agencies once the Planning Act applications are approved and prior to the Aggregate Resource Act licence approval. At that point, Site Plan notes may be added or revised in order to implement or refer to any specific details of monitoring as determined through that process.
<b>New Comments</b>			
1.	<b>Site Plans 2 and 3: It is not clear why some existing natural features are shown, and others are not. For example, the existing watercourse is shown, but wooded features and Significant Wildlife Habitat are not shown. Please review and revise the drawings as appropriate.</b>	MHBC	The Key Natural Heritage Features Schematic on Drawing 1 of 6 (Existing Features) has been updated based on the revised EIS.
2.	<b>The NPCA has reviewed the updated ARA Site Plan drawings. It is requested that the following notes be added to the drawings as appropriate.</b>		

	Comment	Responder	Applicant Response
a)	The channel block for the realigned watercourse shall be designed to adequately convey the Regional Storm Event (as opposed to the proposed 100-year storm event).	Stantec / MHBC	<p>Please see Section 4.5 of Stantec's Natural Channel Design Report which states:</p> <ul style="list-style-type: none"> <li>A valley berm on the east side of the proposed new valley alignment has been designed to contain the 100-year flow. The results from the 100-year event show that proposed conditions flood elevations were contained within the designed floodplain; however, the valley berm will overtop into the quarry upstream of the unopened road allowance for approximately 100 m in the Regional flood (see DWG C-202 and C-203 in Appendix B). The culvert under the unopened road allowance has been sized to convey flows up to the 100-year event (see Section 4.5.1). During a Regional flood event, the road allowance culvert creates a backwater upstream of the culvert. The design accommodates this backwater by providing a protected overtopping area between the valley berm and the quarry. During quarry operation any flow introduced into the quarry at the overtopping location by a Regional event will be pumped, treated, and returned to the creek. Upon quarry closure, any flow that overtops the valley berm at the overtopping location will discharge into the quarry lake. The quarry lake will ultimately have an outlet at the downstream end of the site and will discharge the overtopped Regional flows back into the creek.</li> </ul> <p>The shear stresses are highest at the downstream end of the culverts and on the side of the valley berm facing into the quarry. To limit scour and erosion in these areas, culvert substrate and berm protection has been sized based on these velocities and shear stresses (see section 4.7).</p>
b)	Sediment/Erosion Control: Sediment and erosion control measures shall be implemented prior to and during construction. This may include the use of silt fencing, check dams, straw bales, rip-rap and/or other techniques as required depending on scope, nature and location.	Stantec / MHBC	<p>Please see: (i) Drawing 2 of 6, D. Drainage and Siltation Control, Note 1 and (ii) Drawing 4 of 6, E. Natural Heritage, 1. General, Note c.</p> <p>The EIS recommendations have been revised and Drawing 4 of 6, E. Natural Heritage 1. General Note c. has been revised to provide for the additional wording / requirements requested by NPCA, as follows:</p> <p>1. <b>Prior to construction, silt fencing and sediment control measures shall be installed and implemented prior to and during construction at the easterly limit of Phases 1A and 2A where field drainage enters the existing watercourse. This may include the use of silt fencing, check dams, straw bales, rip-rap and/or other techniques as required depending on scope, nature and location.</b> Silt fencing will serve to demarcate the limit of protected area until the watercourse is diverted.</p>
c)	Wetland Monitoring Program be implemented to monitor the reconfigured wetland features to accurately monitor any changes in the wetland community over time and to measure the success of the re-configuration/restoration and management actions. Long-term monitoring plots and/or monitoring transects shall be established to include a count of the number of stems and percent cover for all plant species present. Monitoring shall be conducted annually at a similar time of year (i.e., late July) for the duration of Phase 1C and Phase 3A.	Stantec / MHBC	<p>The EIS recommendations have been revised and Drawing 4 of 6, E. Natural Heritage 8. Monitoring Program new Note c. has been added to provide for the additional wording / requirements requested by NPCA, as follows:</p> <p><b>c. A Wetland Monitoring Program shall be prepared in consultation with regulatory agencies and shall be implemented to monitor the reconfigured wetland features to accurately monitor any changes in the wetland community over time and to measure the success of the re-configuration / restoration and management actions. Long-term monitoring plots and/or monitoring transects shall be established to include a count of the number of stems and percent cover for all plant species present. Monitoring shall be conducted annually at a similar time of year (i.e., late July) for the duration of Phase 1C and Phase 3A.</b></p>
d)	All plants identified as part of Wetland Monitoring Program shall be categorized by the wetness index based on the Floristic Quality Assessment System for Southern Ontario.	Stantec / MHBC	<p><b>All plants identified as part of Wetland Monitoring Program shall be categorized by the wetness index based on the Floristic Quality Assessment System for Southern Ontario.</b></p>
e)	The results of the Wetland Monitoring Program will be a submitted to NPCA annually prior to December 31 until the re-alignment and rehabilitation is complete. It is recommended that at a minimum, a 5-year monitoring plan upon completion of the wetland re-configuration plantings be undertaken.	Stantec / MHBC	<p><b>The results of the Wetland Monitoring Program will be a submitted to MNRF and all appropriate agencies as determined by MNRF annually prior to December 31 until the re-alignment and rehabilitation is complete. It is recommended that at a minimum, a 5-year monitoring plan upon completion of the wetland re-configuration plantings be undertaken.</b></p>

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f)	All rehabilitated side slopes are to be vegetated with a seed mixture capable of rapid germination and growth to assist in controlling erosion.	Stantec / MHBC	Please see: Drawing 5 of 6, D. Seeding and Planting, Note 1 The EIS recommendations have been revised and Drawing 5 of 6, D. Seeding and Planting, Note 1 has been revised to provide for the additional wording / requirements requested by NPCA, as follows: 1. Side slopes steeper than 3:1 shall be seeded with a naturalizing mix of native, non-invasive wildflowers and grasses <b>capable of rapid germination and growth</b> to stabilize slopes and minimize mowing and maintenance.
g)	During the ongoing extraction of the site and during the progressive rehabilitation phase, the Licensee will continue to monitor and maintain all site vegetation (including recreated areas), and if any die off occurs, it will be replaced immediately (during the proper planting season).	Stantec / MHBC	The EIS recommendations have been revised and Drawing 4 of 6, E. Natural Heritage 8. Monitoring Program, Note b has been revised to specifically address all plantings (on-site and off-site), as follows: b. A monitoring program of <b>all berm plantings, rehabilitation plantings and</b> compensation plantings shall be prepared in consultation with regulatory authorities <b>to address replacement plantings if die off occurs and</b> to confirm stable conditions have been established.
3.	City of Niagara Falls Planning staff have reviewed the updated ARA Site Plan drawings. It is requested that the following notes be added to the drawings as appropriate. (note – this section is not included in red text to allow the requested revisions to be shown in addition to the redline version of the Site Plan notes)		
6.A	<p>Drawing 2</p> <p>Part A: Request the following be added:</p> <p>Road widening with a width of 2.94 metres along the entire length of frontage of the subject lands along Beechwood Road is to be dedicated to the City of Niagara Falls. In addition, daylight triangles with 7 metre by 7 metre legs at the intersection of Beechwood Road and Uppers Lane is to be dedicated to the City of Niagara Falls. In addition, A road widening of 6 metres on either side of Uppers Lane is to be dedicated to the City of Niagara Falls.</p> <p>Road widenings are to be dedicated prior to the commencement of quarry operations.</p> <p>Notwithstanding the above, only the road widening along Beechwood Road is required to be dedicated to the City of Niagara Falls should the Uppers Lane Right of Way be acquired by the licensee.</p>		<p>Please see: Drawing 2 of 6, A. General, new Note 2 added ( and remaining notes renumbered) as follows:</p> <p><b>2. Prior to the commencement of extraction operations, the licence holder shall enter into an agreement with the appropriate road authority to ensure that the following is completed and/or secured to the satisfaction of the appropriate road authority:</b></p> <ul style="list-style-type: none"> <li>• <b>City of Niagara Falls:</b> <ul style="list-style-type: none"> <li>○ <b>Road widening with a width of 2.94 metres along the entire length of frontage of the subject lands along Beechwood Road is to be dedicated to the City of Niagara Falls. In addition, daylight triangles with 7 metre by 7 metre legs at the intersection of Beechwood Road and Uppers Lane is to be dedicated to the City of Niagara Falls. In addition, A road widening of 6 metres on either side of Uppers Lane is to be dedicated to the City of Niagara Falls.</b></li> <li>○ <b>Road widenings are to be dedicated prior to the commencement of quarry operations.</b></li> <li>○ <b>Notwithstanding the above, only the road widening along Beechwood Road is required to be dedicated to the City of Niagara Falls should the Uppers Lane Right of Way be acquired by the licensee.</b></li> </ul> </li> <li>• <b>Niagara Region and City of Niagara Falls:</b> <ul style="list-style-type: none"> <li>○ <b>the required entrance improvements, road improvements, and dedication of road widenings (to Thorold Townline Road, Beechwood Road and Uppers Lane) shall be completed to the satisfaction of the applicable road authorities the Regional Municipality of Niagara and the City of Niagara Falls and in part in general accordance with the figures titled "Uppers Lane Conceptual Intersection Design" and "Uppers Lane Vehicle Movement Diagram" provided on Drawing 4 of 6</b></li> </ul> </li> </ul>
	<p>Part B</p> <p>Add the following to the end of Section 1.</p> <p>Notwithstanding the proposed hours above, operating hours shall be adjusted to conform to the City of Niagara Falls Noise By-law (By-law No. 2004-105 as amended, or any successor By-law)</p>	RWDI / MHBC / Walker	<p>The City of Niagara Falls Noise By-law is addressed in Note A.7 (a) on page 4 of 6 of the Site Plans, which states:</p> <p>a. "Construction will be limited to time periods allowed by the City's applicable by-laws. If construction activities are required outside of these hours, the licensee will seek permits / exemptions directly from the City in advance."</p>

	Comment	Responder	Applicant Response
	<p>Add the following clause:</p> <p>4 All quarry traffic will be directed to the haul route utilizing Thorold Townline Road only</p>		<p>Walker will conform to the City's current Noise By-law No. 2004-105 for any construction activity. However, Walker cannot agree to future changes of a By-law that are beyond the scope of appeal. Operations beyond construction activity will be ultimately regulated by the MNRF in accordance with the Site Plans to ensure provincial standards are met.</p> <p>The following Note H.8 has been added to Drawing 2 of 6 which is similar to what has been requested:</p> <ul style="list-style-type: none"> <li>• <b>All highway trucks shall be directed to the haul route utilizing Thorold Townline Road from Upper's Lane and not directed to Beechwood Road from Upper's Lane.</b></li> </ul>
4.	<p>Part I</p> <p>Amend Section 4 to read as follows:</p> <p>Once processing has progressed to Phase 2A, a hot mix asphalt (HMA) batch plant facility shall be established on the quarry floor (in the location shown on the plan view) in Phase 1A. <b>The HMA batch plant shall be set back a minimum of 600 metres from the east lot line and 350 metres from the south lot line of the licensed area (distnaces are recommended to be confirmed).</b> The HMA batch plant shall remain in the location shown on the plan view for the life of the quarry <b>until extraction is complete and shall be removed during progressive rehabilitation.</b></p>	MHBC	<p>Please see Drawing 3 of 6, Note H.2 which was revised as part of the August 2023 submission. Under the heading H. Final Phase, this Note makes it clear that the hot mix asphalt plant will be removed prior to final rehabilitation of the quarry:</p> <ul style="list-style-type: none"> <li>• "As part of the final operations of the site, remove office/scale house and scales, asphalt plant, recycled asphalt material and any other equipment and scrap from the site".</li> </ul>
e.	<p>Add the following to Clause 1 of Part L</p> <p>The licensee provide the City of Niagara Falls Fire Services Department a written copy of the contingency plan. The location of on site fire routes as well as any other emergency operation plans for the quarry.</p>	MHBC	<p>Given the nature of the comment, we believe it is is being made with respect to the Spills Contingency Plan. Accordingly, we have updated Drawing 2, Note K.4 as follows:</p> <ul style="list-style-type: none"> <li>• "A Spills Contingency Plan shall be prepared and implemented prior to site preparation. The Spills Contingency Plan shall be available on site, <b>submitted to the City of Niagara Falls Fire Services Department</b> and all employees and contractors shall be informed and required to comply with this Plan. <b>The location of on site fire routes as well as any other emergency operation plans for the quarry will be included in this Plan</b>".</li> </ul>
1.	<p>Add the following Part:</p> <p>P&gt; Community Communication</p> <p>1. That a written protocol, for reporting suspected property damage from blasting activities, be provided to the City and published on the licensee's website.</p>	MHBC	<p>With each claim being unique, it is appropriate for Walker to determine how they wish to proceed and respond to each investigation. Furthermore, given that contact numbers and/or damage investigation processes are subject to change, this information will not be explicitly stated on the ARA site plan. With that said, Walker provides a contact number and email address for a quarry representative for each of their operations on their website. Walker's website will be updated to include contact information for a representative of Upper's Quarry if approved. Alternatively, complaints can be made to the MNRF if there is concern that provincial standards for blasting is not being met.</p>
1.	<p>Drawing 4</p> <p>Part F – Traffic</p> <p>Amend Section 1 to read as follows:</p> <p>Prior to commencement of extraction operations, the required entrance improvements, road improvements, and <b>dedication of</b> road widenings (to Thorold Townline Road, Beechwood Road and Uppers Lane) shall be completed to the satisfaction of <del>the applicable road authorities</del> <b>the Regional Municipality of Niagara and the City of Niagara Falls</b> and <b>in part</b> in general accordance with the</p>	MHBC	Amended as requested.

	Comment	Responder	Applicant Response
	figures titled "Uppers Lane Conceptual Intersection Design" and "Uppers Lane Vehicle Movement Diagram" provided on this drawing.		
1.	<p><b>Part G Visual</b></p> <p><b>Add the following to Section 2:</b></p> <p>Notwithstanding the above, a <b>minimum 4.5 metre (but of sufficient height to effectively screen the view of any stationary quarry equipment) acoustic berms shall be constructed along Beechwood Road where the berm abuts Beechwood Road. The berm may be constructed in combination with the 3 metre acoustic berm required under Section A on this drawing. The landscape buffer is to be adjusted in width to accommodate the visual berm at a maximum 3:1 slope. Where a berm is adjacent to a public street, the height of the berm will be measured from the paved surface of the nearest part of the public street</b></p>	MHBC (Visual)	<p>Similar to our Response in Comment 1 in Appendix 11:</p> <p>With respect to the requested 4.5 berm, it is our professional opinion that the current 3.0M berm will be sufficient for multiple reasons.</p> <p>Firstly, as shown on the Cross Section drawings, a 3m berm blocks possible views from the public right of way. While a possible view from the second story of the Bible Baptist Church is noted, we have previously stated that the Church has entered into an agreement with Walker with regard to the Quarry and further vegetation screening will be provided as part of the Landscape Plan found in Appendix B.</p> <p>In addition, as noted on the Mitigation Plan, Planting will be provided at grade in front of the Berms along Beechwood Road, and along the berm adjacent to the Hydro Corridor. This planting will extend above the proposed height of the berms, providing further mitigation above and beyond what is required to screen views.</p>
3.	<p><b>Amend Section 3 to read as follows:</b></p> <p>Within the "Extended Planting Areas" (as shown on this drawing), trees shall be planted at a spacing of 5 to 10 metres on centre, depending on species. Where possible, plantings shall be randomly spaced and staggered up on the berm up to one third of its maximum height to appear more natural. Plantings shall also extend a minimum of 3 metres out from the berm towards the road where available space permits. All vegetation shall be selected for wind and salt tolerance and hardiness. Native <b>non-invasive and drought tolerant species</b> that complement the existing surroundings shall be utilized.</p> <p>Where "Large Planting Stock" is indicated (see plan view and "Typical Visual Berm Detail" on this drawing), this area shall be planted with deciduous trees of minimum 40 millimetres caliper, coniferous trees of minimum <del>1.0</del> <b>1.5 metres</b> in height, and shrub species of minimum 40 centimetres height.</p> <p>Where "Small Planting Stock" is indicated (see plan view and "Typical Visual Berm Detail" on this drawing), this area shall be planted with deciduous tree whips of minimum 1.2 metres in height, coniferous trees of minimum <del>0.6</del> <b>1.2 metres</b> in height, and shrub species of minimum 20 centimetres height (or bare root stock when in season).</p> <p>Planting shall occur for 40 metre stretches on either side of Upper's Lane and the unopened road allowance facing Thorold Town Line Road. The large planting stock shall be planted 3 metres beyond the berm and small planting stock shall extend from the toe of the berm to 2 metres up the berm.</p>	MHBC (Visual)	<p>Similar to our Response in Comment 4 in Appendix 11:</p> <ul style="list-style-type: none"> <li><b>a) Drought tolerance has been noted as a selection requirement for plant material under point C) of the Recommendations section 9.0.</b></li> <li><b>c) The proposed large planting stock for the coniferous tree planting stock has been increased to 1.5m as noted in the Recommendations section and planting figure.</b></li> <li><b>d) The proposed small planting stock for the coniferous tree planting stock has been increase to 1.2m as noted in the Recommendations section and planting figure.</b> A typical layout figure for planted berms and at grade planting has been provided in the recommendations section showing how plant material is to be typically laid out.</li> </ul>
	Amend Sections 5 and 6 to read as follows:		
5.	<p>During the first year, planted trees <b>and shrubs</b> shall be watered and monitored until established. After the first year and up to five years, trees shall be inspected biannually (<del>end of Year 1, beginning of Year 3 and end of Year 4</del>)-<b>annually</b>. Trees which are in poor condition at the time shall be fertilized, watered and monitored to improve their health and vigor. Dead plants will be replaced <b>annually</b>.</p>	MHBC (Visual)	<p>Similar to our Response in Comment 4 in Appendix 11:</p> <ul style="list-style-type: none"> <li><b>f) Shrubs have been noted to be part of the monitoring period. Within the warranty period, 100% of all dead trees will be replaced. Within the subsequent maintenance period, it is expected that there may be a mortality</b></li> </ul>



	Comment	Responder	Applicant Response
6.	<p>A mortality rate of up to 15% of all trees planted over the course of the five year maintenance period is expected. Trees that die exceeding this percentage shall be replaced yearly, preferably in the spring or late summer. All dead trees and shrubs will be replaced on an annual basis.</p>		<p><b>rate of up to 15 % of all trees planted over the course of the five year maintenance period due to factors such as adjacent plant growth and natural succession. Trees that die exceeding this percentage shall be replaced yearly.</b></p>
5.	<p><a href="#">Drawing 5</a></p> <p>Add the following to Section G</p> <p>Should the quarry be abandoned without completing extraction, the licensee or successor shall be responsible for full rehabilitation of the extraction area and any disturbed areas and shall resubmit revised rehabilitation plans for consideration.</p>	MHBC / Walker	<p>First of all, Walker has never abandoned a quarry without completing its obligations to complete full rehabilitation.</p> <p>With that said, the quarry is designed to provide for progressive rehabilitation. Walker is responsible for submitting Annual Compliance Reports to MNRF and the licence is also subject to site inspections by qualified staff at MNRF.</p> <p>Throughout the life of the quarry, a percentage of the aggregate production levy goes to The Ontario Aggregate Resources Corporation (TOARC) who act as a trustee of the Aggregate Resource Trust, a trust created under the authority of the Aggregate Resources Act and pursuant to a trust indenture between the Corporation and the MNRF. TOARC manages the rehabilitation of legacy sites (i.e. abandoned pits and quarries). More often legacy sites exist due to less rigorous licence requirements in history and prior to the Aggregate Resources Act coming into effect and the requirement for phasing and progressive rehabilitation requirements now on ARA Site Plans. However, in the unforeseen scenario of the quarry being abandoned without completing extraction, TOARC could utilize funds from its reserve (of collected levies) to complete any remaining rehabilitation requirements.</p>

**APPENDIX 3: ALTERNATIVE SITE ANALYSIS COMMENTS**

UPPER'S QUARRY

DATE: April 2024

	Comment	Responder	Applicant Response
<b>Appendix 3: Alternative Site Analysis Comments, Regional Staff</b>			
	New Comment		
1.	It is requested that if the results of borehole testing referred to in the report are available, they be provided.		<p>Walker has experience from decades of extraction in the eastern part of the existing Walker Brothers Quarry. The bedrock quality in the east of the current quarry is well documented and because the rock beds are flat lying, their extent and thickness is predictable. The high shale content severely limits the potential products that can be processed from this rock. In addition, the bedrock resource thins due to the natural erosional surface near the escarpment brow which results in a low resource yield per acre. Therefore, due to the known quality concerns and limited reserves, the land within Area 2 is considered unsuitable for future quarrying purposes. For these reasons, Walker has not drilled exploratory boreholes east of Garner Road.</p> <p>The wording in the Alternative Site Analysis on page 13 has been updated to describe this more clearly.</p>

**APPENDIX 4: LEVEL 1 & 2 WATER STUDY REPORT COMMENTS**

UPPER'S QUARRY

DATE: April 2024

	Comment	Responder	Applicant Response
<b>Appendix 4: Level 1 &amp; 2 Water Study Report Comments, Terra-Dynamics Consulting Inc. and NPCA staff</b>			
17.	<p>Section 5.4 Discharge Trigger Mechanism and Contingency Plan:</p> <p>b) Staff recommend that the trigger mechanism for total phosphorus be added. The trigger concentration should be that the quarry discharge concentration be less than the concentration in the watercourse upstream of the quarry. <b>Comment not addressed – NPCA continues to recommend that a trigger for phosphorous be added.</b></p>	WSP	<p>There is no evidence that the Lockport Formation aquifer is a source of total phosphorous (TP) based on either site-specific hydrogeologic work or from any historic published groundwater quality information from the NPCA in the Niagara Peninsula. Further, there is no evidence of phosphorus impacts to water resources from any Ontario aggregate operations, and we know of no other quarry operation that has TP limits for effluent as part of an Environmental Compliance Approval for discharge.</p> <p>Accordingly, it is not necessary or appropriate to have a trigger mechanism for total phosphorous tied to the proposed application. For example, if a TP level is triggered through monitoring, there would be no 'mitigation' available to Walker given the proposed quarry would not be the cause of a higher TP level. With that said, TP can be included in future ECA sampling if NPCA continues to think gathering this information should be a requirement but it should be clear that the proposed quarry would not be causing a higher TP level.</p>

APPENDIX 5: LEVEL 1 & 2 NATURAL ENVIRONMENT IMPACT STUDY COMMENTS

UPPER'S QUARRY

DATE: April 2024

	Comment	Responder	Applicant Response
<b>Appendix 5: Level 1 &amp; 2 Natural Environment and Environmental Impact Study Comments, Regional and NPCA staff, Dougan &amp; Associates</b>			
1.	Site Investigation Methodologies - Clarification is required for various methodologies employed for site investigations and evaluation of significance. <b>Comment partially addressed. Although new information has been provided, some gaps remain hampering the ability to evaluate whether the conclusions are valid. Additional details describing the gaps are provided in the Specific Comments section below.</b>	Stantec	Addressed in specific comments below
3.	Evaluation of Significant Wildlife Habitat - Clarification is required regarding the assessment of significance for Significant Wildlife Habitat (e.g., given presence of turtle species and habitat for species of conservation concern). <b>Comment partially addressed. See the additional information provided in the Specific Comments section below.</b>	Stantec	Addressed in specific comments below
4.	<p>Fish Habitat</p> <p>a. The watercourse that crosses the property, which it is proposed to realign, provides spawning and nursery habitat for Northern Pike (<i>Esox lucius</i>). Adult Northern Pike migrate to the stream to spawn in the spring and then migrate back to downstream habitats. It is not known if Northern Pike migrate upstream past the subject property to spawn farther upstream, but the presence of young-of-the-year individuals in the entire length of the watercourse within the subject property (AECOM, 2010) suggests this may occur. <b>Comment not addressed. No response provided.</b></p> <p>b. The regional significance of Northern Pike spawning in the watercourse that crosses the property has not been assessed but clearly the spawning habitat has significance that extends beyond the immediate study area. The watercourse is accessible to fish from an extensive area of aquatic habitat that is suitable for adult Northern Pike. Investigations to determine the number of Northern Pike that enter this watercourse to spawn and to determine if Northern Pike from the downstream habitats spawn in other locations could provide regional context and allow the scale of potential effects to be assessed. <b>Comment partially addressed. The response does not specifically address the abundance of Northern Pike that spawn within the watercourse that it is proposed to be moved or the abundance of Northern Pike spawning habitat elsewhere. The response indicates that Northern Pike habitat will be more abundant, and that the habitat will be more productive for Northern Pike after the watercourse realignment.</b></p>	Stantec	<p>4 a.) The comment is acknowledged. It is confirmed that Northern Pike migrate upstream past the Subject Property to spawn farther upstream, as no observational data upstream of the Subject Property were collected; however, it is presumed that Northern Pike do move through the Subject Property and to reaches upstream of the Subject Property when spring flows are adequate to allow migration. It has also been assumed that Northern Pike may be spawning upstream of the Subject Property. We agree that the presence of young-of-the-year individuals in the entire length of the watercourse within the subject property (AECOM, 2010) suggests this may occur.</p> <p>4 b.) No continuous monitoring involving daily counts of Northern Pike entering and spawning within the watercourse were undertaken, so the actual abundance of Northern Pike is unknown. Observations of Northern Pike spawning behaviour were recorded and the locations of observed activity were identified. Results of previous surveys including the noting of Northern Pike young-of-the year in the existing watercourse were shared in the reporting. The presence of Northern Pike and their reproductive success on the Subject Property has been acknowledged in all reporting to date.</p> <p>With respect to regional context and the abundance of spawning habitat elsewhere we refer again to Response 6 in the June 9, 2022 letter to Britney Fricke (Re: Information Request for Upper Quarry Natural Environment Report Received from Dougan &amp; Associates March 31, 2022). that described spawning habitat elsewhere as follows: <i>The lacustrine-like lower reaches of Shriener's Creek and Beaverdams Creek are connected to each other via a wide cut extending south to north along the west side of Davis Road (Highway 58) and would provide more substantial and permanent holding water than the many tributaries that feed into both creek systems. The general area features a number of smaller, shallow marshy channels or channel sections that comprise habitat conditions in the upper reaches of these systems or that discharge into either creek at various points along their lengths. The habitat productivity in these shallow marshy habitat systems may be limited by the flashiness of the flow regime that varies on annual basis depending on snow melt and spring precipitation and the onset of intermittent flow conditions. Shallow wetland habitat is available in abundance along the margins of the lower reaches of both Beaverdams and Shriener's Creeks and likely</i></p>

	Comment	Responder	Applicant Response
			<p><i>provides a more stable habitat environment on an annual basis given the backwater influence provided by the water levels in the Welland Canal.</i></p> <p>The proposed channel realignment has been designed to provide habitat elements specific to the life cycle processes for Northern Pike including an increase in available spawning habitat, improved rearing and refuge habitat provided by a greater number of deeper pools. A net gain in overall fish habitat will be achieved through the habitat design of the new channel and the habitat elements incorporated specifically for Northern Pike are expected to result in a net gain in habitat productivity for the species. The watercourse realignment plan will be reviewed by Fisheries and Oceans Canada (DFO) and a final decision on the acceptability of the design, as well as monitoring requirements to measure productivity will be determined through ongoing consultation with DFO as the authorization process progresses.</p>
	Detailed Peer Review (Dougan & Associates) Comments:		
5.	<p>Section 3.2 (FIELD SURVEY METHODS) pg. 3.1 - It is noted in Table 3.1 that no dedicated Turtle surveys were conducted either on the Subject Lands or within the RAA. Given the proximity of larger wetlands to the north and the ability of turtles to move through the landscape while moving from wetland to wetland or in search of nesting habitat, please explain why no surveys were conducted, especially as it relates to potential Species at Risk and the identification of Significant Wildlife Habitat. It is noted that during the technical meeting held on March 30th, 2022, the applicant's consultant confirmed that turtles were observed along the watercourse on the subject property. These records have not been included in the Natural Environment Technical Report and Environmental Impact Study. Please address. <b>Comment partially addressed. Although discussion regarding turtle surveys was inadvertently omitted from the original NETR report, additional information was provided in the August 2023 update. As per Section 3.2.5.1, turtle basking surveys were completed on site on April 4, May 3, May 9, May 17 and May 30, 2017. It is also noted in Section 3.2.5.2 that following receipt of JART/agency comments, six turtle nesting surveys were completed in late June 2023. However, neither section indicated what areas received survey coverage and why, limiting the ability to assess the robustness of the findings. Similarly, neither section included a description of how the surveys were actually completed, but rather indicated that the surveys followed the Blanding's Turtle Nest and Nesting Survey Guidelines (MNRF, 2016). At a minimum, a condensed version of how the surveys were carried out, that is specific to the study area, should be provided to ensure that the protocol was appropriately interpreted and applied. Finally, Table 3-1 continues to omit any mention of the turtle basking surveys. The missing information should be provided for review and completeness. Please address.</b></p>	Stantec	EIS S. 3.2.5.1 and 3.2.5.2 updated with additional methodology details. Table 3-1 updated with basking survey dates.
10.	<p>Section 3.2.5.3. (Bat Exit Surveys) pg. 3.9: Please indicate why some of the other buildings were not surveyed? <b>Additional clarification requested. Recognizing that the buildings at one of the three locations described below have since been torn down, please confirm why the buildings at 5872 Thorold Townline Road, 10273 Upper's Lane and 5205 Beechwood Road were not surveyed? As indicated in the response matrix, were they assessed as not being suitable for bat roosts?</b></p>	Stantec	The buildings were taken down in 2016 and 2019 in accordance with demolition permits issued by the City of Niagara Falls. There was some screening by Stantec as part of overall site visits and at the time there was a lack of general bat activity in the area of the homes observed in the dusk hours. Also, the exterior seemed secure based on reconnaissance of the homes.
13.	Section 3.2.7 Headwater Drainage Feature Assessment pg. 3.10 - Please provide a reference for the headwater drainage features (HDF) guidelines that the timing of site visits is stated to be	Stantec	Stantec is in agreement that the June 22, 2017 visit deviates from the timing of late April -May identified as the typical assessment period in Table 4 of <i>The Evaluation, Classification and Management of Headwater Features Guidelines</i> (CVC and

	Comment	Responder	Applicant Response
	<p>consistent with. If the reference is to the CVC and TRCA guidelines (finalized in 2014), which are referred to in Section 3.3.5, please explain how the timing of the site visits was consistent with the timing recommended by the HDF guidelines. <b>Comment partially addressed. It is agreed that site visits on April 14, 2017, and April 9, 2021, are consistent with Site Visit 1 of the guidelines. The site visit on June 22, 2017, does not conform with the guideline for Site Visit 2, which is described in the guidelines as typically occurring from late April to mid-May. The primary purpose of the second site visit is to determine if flow or standing water is present at that time and, if either is, fish sampling is recommended to determine if there is seasonal fish use of the feature. The hydrological condition during the second visit is key to determining whether a feature that is dry during the third site visit is ephemeral or intermittent, which affects its classification. As the guidelines state, ephemeral features which provide contributing functions "are typically dry or surface-damp by mid-May". With no observations between early April and June 22, it is not possible to make that determination. Please address.</b></p>		<p>TRCA, TRCA Approval July 2013; finalized January 2014). Stantec observed, based on other site visits that took place in May 2017 for wildlife (snake coverboard checks, specifically), that the fields were dry by May with no signs of water in the fields through which the majority of the HDFs are mapped. Unfortunately, those May visits were not recorded as official headwater drainage feature assessment visits. The June visit, while beyond the window, was undertaken while vegetation still had not obscured visibility of the features recorded in April, and it was clear they had been dry for some time. Had water been present, a third visit would have taken place, and the hydrology classification would have been elevated to valued or contributing. Hypothetically, if a dedicated HDFA visit had been undertaken in May and found water, a third visit would have been scheduled and the hydrology classification would have been similarly elevated. Even with a hydrology classification elevated to valued or contributing, the majority of the features would have received a management recommendation of Mitigation.</p> <p>In Table 5-5 of the Level 1&amp;2 report, all of the features (1-13) that were examined by Stantec in 2017 were assigned a hydrological classification of contributing (or valued) regardless, and the classification would not change with observance of water in May. These features all garnered a management recommendation of mitigation in accordance with the guidelines. The features identified as limited hydrology (14-25) were all examined by Stantec on April 9 2021 and exhibited no flow at the time.</p> <p>While the timing of the second visit deviates from that prescribed in the guidelines, the classifications of hydrology would not change with a hypothetical assumption of water presence in May and ultimately, the management recommendations would remain the same.</p>
15.	<p>Section 4.1 Landscape Context pg. 3.18 - The description could be broader and include additional information other than a description of the most common tree species. The Great Lakes Conservation Blueprint for 7E-5 provides a good summary. <b>Comment conditionally addressed. A few facts were incorporated from the Great Lakes Conservation Blueprint for Terrestrial Biodiversity (Volume 1). Considerably more ecological statistics regarding Ecodistrict 7E-5 could have been pulled from Volume 2, i.e., the Ecodistrict Summaries. Also please note that "Big Picture Cores" represents 12.74% of the Ecodistrict 7E-5, not 5.20% reported. Similarly, "Big Picture Corridors" represents 14.16% of the Ecodistrict 7E-5, not 9.55%. Please correct.</b></p>	Stantec	<p>Added context from Great Lakes Conservation Blueprint Volume 2 to EIS S.4.1 and amended incorrect statistics.</p>
18.	<p>Section 5.8 Headwater Drainage Feature Assessments pg. 5.11:</p> <p>b. Headwater drainage feature classification, as presented in CVC and TRCA (2014) and Section 3.3.5 of this EIS, is based on up to three site visits with the first typically occurring in late March to early April. A second visit is made during late April to early May if necessary, and a third visit is made during the July-mid-September period if necessary. Please explain how data from a site visit in early April (in two years) and a site visit in late June provides the information required to determine the classifications. <b>Comment not addressed. A June 22 site visit is not consistent with the recommended late-April – mid-May timing for the second site visit. Please address.</b></p> <p>c. Please provide the raw field observations, and their date(s), that were utilized to determine the classifications presented in Table 5.5. For example, the hydrology class is based on flow status (flow, standing water, or dry), the feature's physical form, and whether or not there is a wetland upstream. <b>Comment partially addressed. It is stated that field notes can be provided, however to the best of our knowledge they have not been. Providing the hydrology condition and channel form during the first site visit in Table 5-5 or an ancillary</b></p>	Stantec	<p>18 b.) – Please see the response to Comment 13.</p> <p>18 c.) – Stantec will provide the field notes and summarize their content with respect to observations of hydrology and channel form in a table accompanied by photos of the features under separate cover. Specifically, a copy of the downloaded Arc GIS information (field notes and photos) in a format that is clear and understandable for Dougan's peer review will be provided <u>by April 15, 2024</u>.</p> <p>18 d.) – Please see the response to Item 13, specifically, "Stantec observed, based on other site visits that took place in May 2017 for wildlife (snake coverboard checks, specifically), that the fields were dry by May with no signs of water in the fields through which the majority of the HDFs are mapped. Unfortunately, those May visits were not recorded as official headwater drainage feature assessment visits."</p> <p>With respect to the woodlot, it will be eliminated to facilitate quarrying and eventually, the realignment of the channel. The portion of the channel that is coincident with the area of the woodlot will be planted to create forest habitat, that will then be contiguous with an upland forest block in the southwest corner of the Subject Property. HDF#11 will continue to convey flow from west of Thorold Townline Road and will enter the new channel in a wooded corridor. The hydrological, riparian and terrestrial functions for HDF #11 will be replicated for the new natural system.</p>

	Comment	Responder	Applicant Response
	<p>table would facilitate a review of the classification, to the extent that this is possible without late-April – mid-May field investigations. Please address.</p> <p>d. It is not unusual for headwater drainage feature classifications to differ among reaches of an HDF. The classifications of upstream reaches can influence the classification of reaches downstream. Please consider whether this is relevant to any of the HDFs in the study area, including feature 11 and features 7, 12, 24 and 25. Comment partially addressed. Response partially accepted. The response states that HDF #11 “is dry by May, as noted in 2017 and 2019 field work.” The site visits to assess HDFs, listed in Table 3-11, occurred on April 4, 2017, June 22, 2017, and April 9, 2021. The source of the May observation is unclear. It appears that the woodlot that HDF #11 is associated with provides a linkage but will be eliminated, not rehabilitated as the response indicates, by the proposed natural channel.</p>		
19.	<p>Section 5.9 Fish and Aquatic Habitat – Existing Watercourse pg. 5.14:</p> <p>c) The report states “The seasonal nature and lack of sustained flow, absence of adequate refuge pool habitat and inability to support perennial conditions favourable to fish all reduce the habitat quality of the tributary to a low rating.” It should be recognized that Northern Pike often spawn on vegetation that is flooded in the spring in areas that are dry later in the year. It should further be recognized that, although those spawning areas may not be high quality fish habitat in the traditional sense, but they are critical for the Northern Pike populations that spawn there. The AECOM (2010) memorandum describing the 2010 field investigations states “Ultimately, the sensitivity of the fish and fish habitat present can be considered Moderately Sensitive due to the presence of spawning habitat for Northern Pike.” Please address the significance of the Northern Pike spawning habitat in this watercourse to downstream fish communities and Northern Pike populations. Comment partially addressed. The response does not directly acknowledge the significance of the Northern Pike spawning habitat to downstream fish communities and Northern Pike populations. Given that the watercourse is Northern Pike spawning and nursery habitat, the validity of describing it as being of low habitat quality is questionable. This comment is somewhat related to comment #28. The response to Comment #28 indicates that the wording of the natural channel design report should reflect that the fish habitat is of moderate sensitivity, rather than marginal. Please address.</p>	Stantec	<p>As previously noted, the low rating is primarily predicated on the lack of sustained baseflow and limited refuge habitat opportunities when flow conditions become intermittent. It is recognized that the Northern Pike spawning habitat is likely the highest value habitat within the existing watercourse. The text of the Level 1&amp;2 report does qualify the low rating by indicating “The seasonal nature and lack of sustained flow, absence of adequate refuge pool habitat and inability to support perennial conditions favourable to fish all reduce the habitat quality of the tributary to a low rating”.</p> <p>Perhaps additional text should have been provided to indicate that, in comparison to watercourses that provide perennial flow and permanent, rather than seasonal fish habitat, the habitat quality would be given a low rating. The habitat function related to spawning and nursery habitat for Northern Pike certainly elevates its value. Moderate sensitivity would achieve an averaging of the quality that shifts from seasonal to intermittent states.</p> <p>Regardless of the rating, under the federal <i>Fisheries Act</i>, fish habitat is fish habitat and the removal of the existing channel and construction of a new, realigned channel will be reviewed by DFO and will require an authorization for approval to proceed. The proposed channel realignment has specifically focused on increasing the amount of potential Northern Pike spawning habitat so that an overall net gain in habitat is achieved. The design also increases the amount of deeper pool habitat to act as refuge during intermittent flow periods. The adequacy of the design will be assessed by DFO and ultimately, any design elements, as well as monitoring requirements, will be requirements of the Project to obtain authorization.</p>
21.	<p>Section 6.2.2 Assessment Based on Regional Criteria pg. 6.7:</p> <p>a) According to the analysis presented in Table 6.3, “the woodland on the Subject Property along Thorold Townline Road would be considered a Significant Woodland from a policy perspective and would become a regional Environmental Conservation Area, per Policy 7.B.1.4 of the Region of Niagara Official Plan.” However, given this status, additional clarification is required to rationalize the recommendation for removal and habitat replacement of this feature. Additional discussion warranted. Although additional information was provided in the Response matrix explaining why the removal and replacement of the woodland as proposed would represent an overall net ecological benefit, removal and replacement warrants additional discussion in the context of negative impacts to the feature and its functions, including Significant Wildlife Habitat. Specific details regarding all species occurring within the woodland should be clearly</p>	Stantec	<p>See Woodland Assessment in Revised NETR report that offers additional details.</p> <p>The assessment includes a review of the policy and the Aggregate section of the PPS along with a comprehensive rehabilitation and mitigation and enhancement plan involving, to the extent possible, in situ replacement and increase in forest cover with a priority on creating ecological linkage in the otherwise isolated parcels of woodland.</p>

	Comment	Responder	Applicant Response
	documented – please provide the raw data for vegetation surveys, ELC, and any wildlife observations.		
22.	<p>Section 6.6 Fish Habitat pg. 5.14 - This section describes conditions but does not provide an assessment of the significance of the existing watercourse from a fish habitat perspective. Based on the reported field observations, this watercourse provides spawning and nursery habitat for Northern Pike. Adult Northern Pike migrate into this watercourse to spawn in the spring and presumably migrate back downstream after they have spawned. No investigations were conducted to determine the number of adults moving into the watercourse to spawn or the number of young-of-the-year that move downstream after they hatch. The fact that adults migrate into the watercourse from downstream to spawn indicates that the significance of the watercourse extends beyond the study area. Its significance at a regional scale will depend, in part, on the proportion of regional pike spawning habitat that this watercourse provides. <b>Comment partially addressed. The response indicates that collecting additional data is not necessary (emphasis ours) because it might inadvertently affect spawning activities or young of the year and because of the limited effectiveness of methods available. In the absence of any information regarding numbers of spawning fish, numbers of young-of-the-year produced, or the availability of other spawning areas, it is not possible to know how significant this watercourse is to the regional fish community and pike population(s). Furthermore, in the absence of baseline data it will not be possible to assess the effectiveness of the proposed habitat creation, except in qualitative terms. The response seems to imply that there is no need for this knowledge because Northern Pike spawning and nursery habitat will be improved and that, based on pre-consultation, Fisheries and Oceans Canada supports the proposed design. Documentation of pre-consultation with Fisheries and Oceans Canada has not been provided. Please provide.</b></p> <p>The response to Comment #38, which pertains to the Natural Channel Design, states, in part, “The pike spawning habitat is recognized as important in the watershed and sensitive including its contribution to the diversity of Beaverdam’s creek.” That statement addresses significance and Section 6.6 would benefit from its inclusion. Please address.</p>	Stantec	<p>It has been acknowledged that the design of the new channel will be reviewed by, and ultimately subject to approval by, DFO. As part of that review process, we expect ongoing dialogue with DFO biologists regarding the condition of the existing channel, including discussions on Northern Pike spawning and recruitment. It may be that DFO will require additional baseline data to be collected to provide for comparison of productivity that will be monitored in the new channel. Should DFO request the collection of additional data during spring migration and spawning activities to complement baseline data, it will be at their assessment of risk associated with inadvertently affecting spawning activities, emergence of young-of-the-year and potentially, year class recruitment. If DFO has a level of comfort with this additional data collection, it will be undertaken. The approach to monitoring as either a qualitative, quantitative, or combination thereof will be a condition of the ultimate authorization, and is at the discretion of DFO.</p> <p>Text similar to “The pike spawning habitat is recognized as important in the watershed and sensitive including its contribution to the diversity of Beaverdam’s creek.” along with text from our June 9, 2022 letter to Britney Fricke will be incorporated into the EIS to addresses significance.</p>
23.	<p>Section 6.7 Significant Wildlife Habitat pg. 6.10 - According to text, Table B-2, Appendix B provides a detailed assessment using the Significant Wildlife Habitat Criteria Schedules for Ecoregion 7E.</p> <p>a. Re: the discussion about the Turtle Nesting Areas SWH type, it states “Suitable habitat for turtle nesting is present on the road shoulders and in agricultural fields, however anthropogenic features do not qualify as significant wildlife habitat.” However, the statement regarding agricultural fields is incorrect. There is no such exemption for agricultural fields. Therefore, given the close proximity of the agricultural fields to the watercourse bisecting the Subject property, and the fact that no turtle nesting surveys were conducted in support of the application, it is premature to conclude that Turtle Nesting Habitat SWH is absent. Please address. <b>Comment partially addressed. Please see the September 2023 comment for Specific Comment #1. Until additional information is provided for review that indicates how the turtle nesting surveys were carried out, the conclusion that Turtle Nesting Habitat SWH is absent may not be justified. Furthermore, the statement that “The agricultural field is not considered preferred nesting habitat due to the high density of vegetation cover (i.e. winter wheat) during peak breeding season</b></p>	Stantec	<p>23 a.) Additional details on methodology have been provided in S. 5.2.3 (see comment 5). Added “Evidence of turtle nesting was observed on Upper’s Lane but not in or adjacent to agricultural fields.” To Appendix B-2. Based on survey results and known characteristics of preferred nesting sites for turtles (for example, see the Ontario Reptile and Amphibian Atlas 2009-2019 (Ontario nature, 2023) for preferred nesting habitat characteristics for species such as Blanding’s Turtle “Females dig their nests in open habitat with high sun exposure...” and Midland Painted Turtle “Females nest in organic, sandy, or gravelly soils in open habitats with high sun exposure...”. It is the opinion of Stantec that habitat characteristics should be considered in conjunction with general category (i.e., agriculture field), and that this meets the intent of the PPS and associated criteria schedules.</p> <p>The Ontario Reptile and Amphibian Atlas can be accessed at: <a href="https://view.publitas.com/on-nature/ontario-reptile-and-amphibian-atlas/page/1">https://view.publitas.com/on-nature/ontario-reptile-and-amphibian-atlas/page/1</a></p> <p>The comment is correct that the Ecoregion criteria does not specifically distinguish between preferred and non preferred habitats. However the <i>Significant Wildlife Habitat Mitigation Support Tool Version 2014</i> does provide more information as well as the <b>Significant Wildlife Habitat Technical Guide</b>.</p>



	Comment	Responder	Applicant Response
	<p>and the likelihood for nest disturbance and loss by agricultural equipment.” unnecessarily diminishes its significance as nesting habitat on the subject lands since the Significant Wildlife Habitat Criteria Schedules for Ecoregion 7E does not distinguish between preferred and non-preferred nesting habitat. Turtles are opportunists, often using whatever suitable habitat is available. It is also worth noting that according to Section 5.3.2: “In 2019, agricultural fields on the Subject Property were planted with soy.” Therefore, the reference to winter wheat doesn’t appear to make sense. Also, soy tends to allow more sunlight to penetrate to the ground than winter wheat, increasing the likelihood that the agricultural fields would be used for turtle nesting. Please address and revise the affected text.</p> <p>b. Re: Eastern Milksnake (Species of Conservation Concern), the assessment is based on cover board surveys conducted in 2017 “and other field investigations in 2012 and 2019”. Please indicate whether the 2012 field investigations are referring to incidental observations? According to Table 3.1 no dedicated field surveys were carried out prior to 2017. <b>Comment partially addressed.</b> The response included in the response matrix still does not indicate whether the fieldwork, now acknowledged to have been conducted in 2011, was incidental in nature. Similarly, no mention is made of the 2019 field investigations. Please provide clarification and ensure that the text in Table B-2 (Appendix B) is updated accordingly.</p> <p>c. Re: Snapping Turtle (Species of Conservation Concern), please indicate if any dedicated surveys to document this species along the creek were conducted or whether the statement that “...the species was not observed during the 2017 or 2019 field investigations” was based on incidental observations only. Table 3.1 does not indicate that any dedicated surveys were conducted. <b>Comment partially addressed.</b> New information was provided in the updated NETR indicating that turtle basking surveys were completed on site in the spring of 2017. However, text in Section 3.2.5.1 does not indicate what areas received survey coverage, limiting the ability to assess the robustness of the findings and the conclusion that Snapping Turtle SWH is absent. It is also noted that the Snapping Turtle text in Table B-2 has not been updated to reflect the fact that the 2019 field investigations were incidental in nature, thereby limiting their value, or that additional turtle nesting surveys were conducted in 2023 that documented evidence of nesting along the road shoulders. Even though turtle nesting along municipal road shoulders is not considered SWH, it does confirm the overall presence of turtles within the subject lands. Finally, the NETR does not acknowledge the turtle observations that were made along the watercourse on the subject property. These were noted during the March 30th, 2022 technical meeting. Additional information regarding the extent of the turtle basking turtle surveys conducted in 2017 is requested, as well as a full accounting of the turtle observations made along the watercourse.</p> <p>d. Re: Common Nighthawk (Species of Conservation Concern), please provide additional justification why suitable nesting habitat is absent in the Study Area. The nesting habitat description provided is misleading. According to Sandilands (2007), in Cadman et al., (2007), “In the agricultural south, it has nested in grasslands, agricultural fields, gravel pits, prairies, and alvars and airports.” <b>Comment partially addressed.</b> According to the response provided in the response matrix: “Uppers quarry area is mainly agricultural land and the</p>		<p>Many of Ontario’s turtles build nests along shoreline beaches. They use these areas because they are located near water and are able to dig out nests in the light sand and gravel. These areas also afford good exposure to sun and allow faster development of eggs (Carr 1952; Froom 1971, 1976; Cook 1984; Gilhen 1984; Lamond 1994).</p> <p>Sand and gravel beaches located near good turtle habitat (undisturbed shallow weedy areas of marshes, lakes, and rivers) are most frequently used. Some beach strips are used by many turtles from the surrounding area each year (Carr 1952; Froom 1971, 1976; Cook 1984; Gilhen 1984; Lamond 1994). In areas where sand or gravel beach is in limited supply, isolated beaches become highly significant for the maintenance of viable turtle populations. Certain turtles may also nest at stream crossings and interfaces between creeks and marshes. The exposed sand and gravel on beaches (or roadsides, railways, etc.) absorb heat from sunlight warming the substrate. This heat helps incubate the eggs, allowing them to hatch more quickly, leading to higher survival rates of young turtles.</p> <p><b>For an area to function as a turtle nesting area, it must provide sand and gravel that turtles are able to dig in along with appropriate exposure to sun in areas that are free of vegetation and have good drainage.</b> The beach must be wide and elevated enough that high water does not inundate nests. Predators like striped skunks, raccoons and others will dig out and eat eggs. Large wide beaches provide more nesting area and consequently reduce the odds that nests will be found by predators. <b>Beaches adjacent to permanent water are preferred.</b> When turtles must cross roads to nest or reach water, there is often high mortality.</p> <p>The earlier Significant Wildlife Habitat technical guide (MNRF 2000) is also reviewed and considered as it provides valuable information that is not available in the newer Ecoregion criteria, it states:  <i>In spring and early summer, turtles lay their eggs in areas that may be used year after year. Preferred nesting habitats are usually on relatively soft substrates such as sand or fine gravel that allow turtles to easily dig their nests, and are located in open, sunny areas (enhancing development). In general, the best nesting habitats are close to water and away from roads (less mortality of adults and hatchlings) and sites less prone to loss of eggs by predation from skunks, raccoons, and other animals. AND</i></p> <p><u>Turtle nesting habitat</u></p> <p><i>Few turtle nesting sites have been identified. It is common to see turtles along roadsides attempting to lay eggs in the gravel shoulders of the roads. Obviously, these are not preferred sites. There is considerable risk to females and young as they cross roads. Turtle eggs suffer high mortality due to predation by raccoon and skunk. In some areas, virtually all eggs are lost each year. This problem becomes worse as turtles are forced to concentrate in fewer and fewer sites. Greatest significance should be assigned to sites that are natural, least disturbed and are closest to their habitat. The most significant sites should have safe movement corridors between the nesting and aquatic habitat.</i></p> <p>In addition the site condition indicate that the surface soils at Uppers quarry consist of clay loam and silty clay loam that can be very hard under dry conditions, perhaps not the best condition for turtle digging and may be a reason why turtles nesting was not observed in the edges of the agricultural lands and they seem to be attracted to the available substrate of fine gravel on the roadside shoulder.</p> <p>23 b.) Per EIS S.3.1:</p> <p>Walker Industries previously initiated the application process for a Category 2, Class “A” Quarry License on the Subject Property. In addition to the abovementioned resources, several ecological studies that were undertaken in support of this application were reviewed:</p>

	Comment	Responder	Applicant Response
	<p>presence of nighthawk in the peripheral type habitats would not be considered SOCC. This agricultural type of habitat is widely distributed and abundant in the study area and in the Region of Niagara as such these fields would not be considered SWH.”</p> <p>However, according to the “Special Concern and Rare Wildlife Species” SWH criterion (OMNRF, 2015), no Candidate ELC Ecosites are excluded from consideration, nor are any given preferential treatment due to their abundance in the landscape. As such, agricultural habitats should not be automatically discounted or worse yet, excluded from surveys. Nevertheless, and despite the above description of which habitat types qualify for consideration, it is Sandilands’ (2010) opinion that “In southern, off-Shield Ontario, the Common Nighthawk appears to have almost abandoned nesting in natural forest clearings and rural areas; most nesting occurs in cities or communities where there are flat roofs.” As such, it is acknowledged that the likelihood of Common Nighthawks nesting in the agricultural fields on the subject lands is likely low, and the absence of dedicated surveys conducted in search of the species can be ignored, if suitable nesting habitat for the species can be provided on site, during and post quarry operation.</p> <p>e. Re: Woodland Vole (Species of Conservation Concern), please provide other justification why suitable habitat is absent in the Study Area. The statement that “There are no records of Woodland Vole in the vicinity of the Study Area” is not satisfactory since “Woodland Voles are an often overlooked member of the fauna, as they are secretive and rarely appear above ground during daylight” (Naughton, 2012). <b>Comment partially addressed. References in the response matrix to the questionable quality of habitat due to the absence of deep leaf litter and dense herbaceous layer preferred by the species are acceptable responses. However, the text in Table B-2 (Appendix B) as it relates to “Results of Desktop Habitat Assessment” should be revised. The sole reason why the species is likely absent should not be based on the fact that there are no records of Woodland Vole in the vicinity of the Study Area. Please address.</b></p>		<ul style="list-style-type: none"> <li>• AECOM conducted a fisheries assessment, environmental constraints analysis and wetland assessment on the property in 2008. The results of these assessments were outlined in two memos (AECOM 2009; AECOM 2010) and one report (AECOM 2008).</li> <li>• Savanta Inc. conducted an insect survey and preliminary baseline conditions assessment in 2010. The results of these assessments were presented in two reports (Savanta Inc. 2010a; Savanta Inc. 2010b).</li> <li>• Stantec conducted a bee, dragonfly and butterfly study; a salamander egg mass survey; a botanical inventory; an ELC habitat assessment; a breeding bird survey; an American badger survey; a winter wildlife survey; and a snake coverboard survey in 2012. The results of these surveys are presented in eight memos (Stantec 2012a-2012h).</li> </ul> <p>In other words, all documents listed above are considered part of the background review, and are not described as part of the current study. For full details on each, the corresponding publication can be reviewed. S.4.6.2 also provides a summary of the conclusions put forth by the 2012 memorandum, which is referenced so that it may be reviewed as required. No targeted snake surveys were conducted in 2019, per S.3.0 and table 3.1.</p> <p>23 c.) Please see response to comment 5, above.</p> <p>Stantec agrees, the fields are not SWH. As suggested, the NCD Planting Plan includes many pond areas for basking a number of nesting mounds in the vicinity new creek alignment as part of an overall ecological benefit to the local landscape and in support of adding a significant number of nesting opportunities for all turtle species.</p> <p>23 d.) Common Nighthawk habitat is effectively added to the Natural Channel Design in the riparian / meadow grasslands proposed.</p> <p>23 e.) Table B-2 revised with the following text to reflect habitat considerations: “The project area is at the far northern extent of the species’ limit. There is a small area of potentially suitable habitat adjacent to the roadway, but this habitat is considered low quality due to the absence of a deep leaf litter and dense herbaceous layer.”</p>
24.	<p>Section 6.7 Significant Wildlife Habitat pg. 6.10 - Text on page 6.11 or Table B-2 (Appendix B) does not adequately justify why breeding habitat for Eastern Wood-Pewee is absent on the Subject Property. An Eastern Wood-Pewee was recorded in the woodland along Thorold Townline Road on June 14, 2019, when bat acoustic monitors were deployed but not on June 25, 2019, when monitors were collected. Given that (1) this woodlot was not monitored for breeding birds in 2019, (2) wind speeds exceeded the recommended maximum to document breeding birds for the majority of June 25, 2019, and (3) less time was spent within the woodlot removing the monitoring equipment that setting it up, it is reasonable to assume that the habitat was suitable for breeding. This is consistent with the conservative approach applied to the Breeding Bird Survey methodology (see Section 3.2.3 on page 3.5). Please provide justification to support the position that the woodland along Thorold Townline Road did not provide suitable breeding habitat for Eastern Wood-Pewee in 2019. <b>Comment partially addressed. Additional justification was provided. It is acknowledged that Eastern Wood-Pewee was not documented from the woodland along Thorold Townline Road during the 2017 breeding bird surveys. However, that does not discount the fact that it was documented there more recently in 2019, which at the very least suggests that it is suitable habitat. Furthermore, given the significance of the observation, please explain why</b></p>	Stantec	<p><b>Habitat for species of conservation concern:</b> The species was not detected during three rounds, (June 12, 2017 June 22, 2017 and July 5, 2017) focused breeding birds surveys in the woodland. It was recorded as an incidental observation in June 2019 (when bat acoustic monitors were deployed). Breeding habitat for Eastern Wood-Pewee is deciduous or mixed woods, often near forest edges or clearings (Cadman et al. 2007). Stantec is of the opinion that the breeding bird surveys completed specifically to assess breeding bird presence are useful and valid for this purpose.</p>

	Comment	Responder	Applicant Response
	<p>additional breeding bird survey visits to the woodland were not carried out in 2023 to help confirm whether the bird was present. In absence of additional breeding bird surveys having been conducted, it is assumed that the woodland provides suitable habitat and is SWH for Eastern Wood-Pewee</p>		
28.	<p>Appendix E Proposed Upper's Quarry, Natural Channel Design Report – Section 3.4 Aquatic Habitat pg. 3.5-3.6:</p> <p>a. The Natural Channel Design Report states "Habitat conditions for potential usage by spawning Northern Pike were noted to be of marginal quality during that [the March 26, 2010] survey." We were unable to find a statement to this effect in the memorandum by AECOM (2010) describing that survey. Please clarify. <b>Comment partially addressed. The response indicates "the Natural Channel Design [report] wording should reflect that fish habitat is of moderate sensitivity". The Natural Channel Design report has not been revised. If the Natural Channel Design report is not revised, the change to the sensitivity should be documented somewhere in a preface or addendum or list of errata appended to that report. Please address.</b></p> <p>b. The Natural Channel Design Report states "While spring freshet typically creates conditions that allow for movement of Northern Pike into potential spawning areas, as flows recede and conditions become intermittent, habitat conditions are generally too poor to support various life stages of fish. As the system dries up, refuge pool habitat becomes limiting except for the pool associated with the Upper's Lane culvert. The seasonal nature and lack of sustained flow, absence of adequate refuge pool habitat and inability to support perennial conditions favourable to fish reduce the habitat quality of the tributary to a low rating." It should be recognized that Northern Pike often spawn on vegetation that is flooded in the spring, in areas that are dry later in the year. It should be recognized that, although those spawning areas may not be high quality fish habitat in the traditional sense, but they are critical for the Northern Pike populations that spawn there. The AECOM (2010) memorandum states "Ultimately, the sensitivity of the fish and fish habitat present can be considered Moderately Sensitive due to the presence of spawning habitat for Northern Pike."</p> <p><b>Comment partially addressed. The response states "The pike spawning habitat is recognized as important in the watershed and sensitive including its contribution to the diversity of Beaverdam's creek. This understanding is best demonstrated in the level of effort and the considerations incorporated into the restoration plan including design elements, sequence of construction, and review and monitoring of the inundation capacity of the spawning habitat." Section 6.6 of the Natural Environment report and Section 3.4 of the Natural Channel Design report would benefit from inclusion of the first sentence of the preceding quote. Please address.</b></p> <p><b>The response further states "Pike are noted to be a course [sic] fish with a strong resiliency and adaptable to a variety of conditions and changes." It is incorrect to refer to Northern Pike as a "course" [sic] fish. Northern Pike is a sports fish in Ontario, with catch limits described in the Ontario Fishing Regulations.</b></p>	Stantec	<p>a. The reference to marginal quality has been removed from the Natural Channel Design Report and replaced with a discussion of habitat quality that reflects the wording from the 2010 AECOM memo.</p> <p>b. Wording is added to the Level 1&amp;2 report to reflect the importance of Northern Pike spawning habitat in the existing watercourse and its contribution to the Beaverdams Creek system. Wording has also been added to Section 3.4 of the Natural Channel Design Report to reflect this importance.</p> <p>The closing paragraph of the previous response was a summary statement and did not reflect wording in the Level 1&amp;2 report. It was not accurate to refer to pike as a coarse fish.</p> <p>As a starting point to the review of references regarding the resiliency and adaptability of pike, the reviewer is referred to Harvey, B. 2009. A Biological Synopsis of Northern Pike (<i>Esox lucius</i>). Can. Manuscr. Rep. Fish. Aquat. Sci. 2885: v + 31 p.</p> <p>With respect to references citing the creation of pike spawning habitat, there is a relative scarcity of scientific papers available on the subject. One reference that does stand out is:</p> <p>Cott, P.A. 2004. Northern pike (<i>Esox Lucius</i>) habitat enhancement in the Northwest Territories. Canadian Technical Report of Fisheries and Aquatic Sciences 2528: vii+32p.</p> <p>The majority of projects that are readily available for review through an internet search are carried out by agencies and non-governmental organizations (NGOs) and are not generally reported in the scientific literature. The following list provides examples of these types of reports:</p> <p>Rideau Valley Conservation Authority – Jebbs Creek Wetland Embayment Creation Project. <a href="https://www.rvca.ca/jebbs-creek-wetland-embayment-creation-project">https://www.rvca.ca/jebbs-creek-wetland-embayment-creation-project</a></p> <p>Embayment C Pike Spawning Habitat Creation, described in <i>Tommy Thompson Park Public Urban Wilderness Habitat Creation and Enhancement Projects 1995-2000</i>. <a href="https://tommythompsonpark.ca/app/uploads/2017/10/TTPHabitatProjects1995_2000.pdf">https://tommythompsonpark.ca/app/uploads/2017/10/TTPHabitatProjects1995_2000.pdf</a></p> <p><i>Start of Construction of Wetland Enhancement Project at Lakeview Wildlife Management Area, Lake Ontario</i>. Article by Audubon Staff at <a href="https://ny.audubon.org/news/start-construction-wetland-enhancement-project-lakeview-wildlife-management-area-lake-ontario">https://ny.audubon.org/news/start-construction-wetland-enhancement-project-lakeview-wildlife-management-area-lake-ontario</a> The article pertains to this project, which is about habitat restoration in a Priority Coastal Area identified by the Great Lakes Commission <a href="https://www.glc.org/work/priorityareas/lakeview">https://www.glc.org/work/priorityareas/lakeview</a></p> <p>The Green Bay, Wisconsin area has the greatest number of articles, news reports, etc. associated with various pike habitat creation projects. The Fox River Trustee Council is an NGO that is very active in habitat projects, particularly for Northern Pike. This website maps their project locations and provides fact sheets on a number of habitat creation/restoration initiatives. <a href="https://www.foxrivernrda.org/visit-nrda-project-sites/">https://www.foxrivernrda.org/visit-nrda-project-sites/</a></p>

	Comment	Responder	Applicant Response
	<p>Please provide references supporting the assertions that Northern Pike have a strong resiliency and are adaptable to a variety of conditions and changes.</p> <p>Please also provide supporting references for the statement "Creation of Pike spawning habitat has been successful completed throughout North America in the range of where Pike are distributed in warm water systems."</p>		<p>A number of articles, information pieces and web pages are available featuring these initiatives, some of which include:</p> <p><i>Pathways to Pike Reproduction: Restoring Northern Pike Spawning Habitat in the Fox River Basin.</i> Fact Sheet contained in the 2021 Restoration Progress Report for the Lower Fox River and Green Bay Natural Resource Damage Assessment, Fox River/Green Bay Natural Resource Trustees. June 30, 2012 through December 31, 2018. Published April, 2021 by the Fox River Trustee Council. The fact sheet speaks to the following projects:</p> <ul style="list-style-type: none"> <li>• Enhancing Northern Pike Spawning in the Tributaries of the Fox and East Rivers</li> <li>• Improving Northern Pike Spawning in Oconto County</li> <li>• Creating Paths for Pike Along Spring Brook Creek</li> </ul> <p>Northern Pike Habitat Restoration in the Suamico / Little Suamico Waterheds <a href="https://www.foxrivernrda.org/nrda-projects/northern-pike-habitat-restoration-in-the-suamicolittle-suamico-watershed/">https://www.foxrivernrda.org/nrda-projects/northern-pike-habitat-restoration-in-the-suamicolittle-suamico-watershed/</a></p> <p>Fox-Wolf Watershed Alliance – <i>Northern Pike Habitat Restoration</i> <a href="https://fwwa.org/2017/03/20/northern-pike-habitat-restoration/">https://fwwa.org/2017/03/20/northern-pike-habitat-restoration/</a></p> <p>Little Menomonee River Habitat Restoration Project, Ozaukee County, Wisconsin <a href="https://www.co.ozaukee.wi.us/2731/Little-Menomonee-River">https://www.co.ozaukee.wi.us/2731/Little-Menomonee-River</a></p>
	New Comments		
1.	Section 5.8 Incidental Wildlife Observation pg. 5.11 During the technical meeting held on March 30th, 2022, the applicant's consultant confirmed that turtles were observed along the watercourse on the subject property. These observations have not been included in the Natural Environment Technical Report and Environmental Impact Study to date. Please address.	Stantec	<p>As noted in the response this was not the case and we believe it was suggested at the time that this comment was subject to confirmation, and it has now been confirmed that no observations were recorded of basking turtles.</p> <p>The additional survey information concerning nesting surveys have been added to the report. These surveys do record observations of nesting turtles at primarily roadside locations as documented in the report.</p>
2.	Section 6.7 Significant Wildlife Habitat pg. 6.11 Under the Seasonal Concentration Areas heading, the text indicated that the woodland on the east side of Thorold Townline Road was considered Significant Wildlife Habitat (SWH) as a Deer Winter Concentration Area. However, there is no mention of Bat Maternity Colony SWH, yet the text in Table 6-3 (Section 6.2.2) state "The woodland contains Significant Wildlife Habitat for Bat Maternity Colony and Deer Winter Concentration Area." The data included in Table 5-4 (Section 6.2.2) for Big Brown Bat and Silverhaired Bat appears to support that conclusion. Please include acknowledgement of this in this section as well as Section 8.5. In addition, please correct the conclusion for Bat Maternity Colonies in Table B-2 (Appendix B). Instead of "Absent" it should read "Present".	Stantec	<p>Comment is acknowledge that clarification is required, and the report will be revised to include additional deer usage information, and clarify that the feature on the adjacent lands should be more appropriately consider as 'candidate' non Sar bat habitat based closer review of acoustic recording and timing of recording relative to sun rise as recommended by MECF on a technical call January 18 2024 . It will be revised in the report to reflect this further assessment and clarification.</p>
3.	Section 8.5 Significant Wildlife Habitat [Assessment of Impacts] pg. 6.21 Section 8.5.1 is titled Potential Impact. However, given that the woodland on the east side of Thorold Townline Road, acknowledged to support provincially Significant Wildlife Habitat, is proposed for removal, the heading is inappropriate. Rather the removal of the woodland would represent a direct and permanent impact. Section 2.1.5 of the Provincial Policy Statement (PPS) also states:	Stantec	<p>The report has been revised to more concisely address this matter with regard to the woodland assessment and the PPS which must be read in its entirety. The development is assessed, as documented in the report, with respect to individual policies and matters and their integration as a whole, to offer a means of protecting the natural heritage system (NHS) and to move toward significantly enhancing the natural heritage attributes found on the landscape.</p>

	Comment	Responder	Applicant Response
	<p>“Development and site alteration shall not be permitted in: ... d) significant wildlife habitat ...unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.” Furthermore, Section 8.5.2.1 (Mitigation Recommendations for Woodland SWH) states: “As described in Section 8.2.2, woodland compensation1 planting will occur on 4 ha of land west of Thorold Townline Road and adjacent to an existing 14 ha woodland of similar species composition and structure.” Despite the section heading (i.e., Mitigation Recommendations for Woodland SWH), what is being proposed is not mitigation, but rather compensation (i.e., replacement of damaged habitat). However, compensation is not an accepted option available in the PPS when it comes to reducing or eliminating negative impacts. Not only is compensation is not mentioned in the PPS, but it is also only mentioned once in the Natural Heritage Reference Manual2 , and specifically in relation to a HADD (i.e., the harmful alteration, disruption or destruction of fish habitat). Please revise the text/tables/figures in this section and all other applicable sections as appropriate, to reflect the discussion above and its implications to the proposed extraction scenarios.</p>		
	<p>Detailed Comments from NPCA Technical Staff:</p>		
<p>29.</p>	<p>Wetlands: To accommodate the proposed development on site, approximately 7.04 ha of non-Provincially Significant Wetland are proposed to be removed and approximately 11ha of wetland are proposed to be created. While the general idea of Wetland Reconfiguration is consistent with Section 8.2.2.8 of NPCA policy, further details are required to confirm that all criteria has been met to the NPCA’s satisfaction.</p> <p>b. The impact assessment completed for wetlands within the study area has focused on the potential for decrease in hydroperiod as a result of the proposed quarry, however as identified in Section 8.4.1.4 dewatering of the quarry may result in increased hydroperiod to the watercourse. Please revise the impact assessment to account for a potential increase in hydroperiod for wetlands W1A and W1C. <b>Comment not addressed.</b></p> <p>d. NPCA staff understand that in order to facilitate the construction of the proposed quarry approximately 7.04 ha of wetland is required to be removed. To compensate this loss, it is understood that approximately 11 ha of wetlands will be created within the realigned watercourse area and the southwestern portion of the site.</p> <p>(i) Additional planting details (proposed density, layout etc...) are required for the proposed creation of the thicket swamp, meadow marsh and deciduous swamp proposed in the southwestern portion of the site. <b>Comment not addressed.</b></p> <p>(ii) Please identify how wetland hydrology will be maintained and monitored within the proposed swamp features to the satisfaction of NPCA staff. <b>Comment not addressed.</b></p> <p>Section 12.2 of the EIS identifies that an additional 4 ha of deciduous woodland (swamp) and visual screens along setbacks on the Subject Property are to be created. NPCA staff are unclear how</p>	<p>Stantec</p>	<p>b) In the interim before the channel realignment is in place and the new wetland riparian areas are in place, there will be temporary increase in the hydroperiod of the adjacent marsh meadows and a thicket community. There are few considerations that support the conclusion of no negative impact to the feature or its ecological function. The wetland communities have a greater range of hydroperiod than other wetland communities such as some swamps , they generally remain as wetlands features when hydroperiods are increased with a potential shift for one to another wetland plant, and generally the extent of the wetland within the wetted zone may increase. These elements are further detail in the revised NETR report. Overall, the scenario could result in more wetlands along the margins of the creek until the area is realignment to the proposed NCD.</p> <p>D (i) a planting plan has been developed for regulatory review and comment</p> <p>ii) a lowland deciduous dominated woodland has been design in favour of the swamp community and is present on the NCD planting plan. It is detailed in the NCD package drawings for the Planting Plan L-460 to L463 and L-500 to L-503.</p>

	Comment	Responder	Applicant Response
	swamps will be established and maintained in the long term. Please provide additional details regarding the proposed enhancement of these areas. <b>Comment not addressed.</b>		
30.	<p>Watercourses: The main tributary to Beaver Dams Creek is proposed to be relocated to accommodate the proposed development. This channel is impacted by the Regional Storm Flood hazard. While the NPCA is supportive of this idea in principle, the NPCA will require that the channel block be designed to adequately convey the Regional Storm floodplain hazard. In addition: <b>Comment not addressed. The Regulatory floodplain for this watershed is the regional storm</b></p> <p>c) NPCA staff note that the outlet from the quarry lake to the realigned watercourse has not been identified on any of the proposed drawings. Please provide a preliminary design and demonstrate that natural channel design principles have been incorporated into the design to the extent practicable. <b>Comment not addressed.</b></p>	Stantec	Text has been added to the NCD report to address this comment more concisely and clarify how this flood volume is include in the design considerations.
32.	<p>Ecological Monitoring: A comprehensive monitoring plan is required to ensure that the realigned watercourse and relocated wetlands function as designed. Section 11.0 of the EIS states that details of the monitoring plan will be developed in consultation with the MNRF and documented in a supplementary Upper's Quarry Monitoring Plan. NPCA staff are supportive of the development of a standalone Monitoring Plan and request to be consulted to ensure that NPCA interests are addressed within this plan. <b>Comment not addressed.</b></p>	Stantec	Added "in consultation with MNRF <b>and NPCA</b> " to EIS S.11
	<b>New Comments</b>		
1.	<p><b>NPCA Requested Plans: In order to ensure the proposed watercourse realignment and wetland compensation are completed appropriately and as per NPCA planning policy, the NPCA requests the following detailed plans be submitted for further review and approval:</b></p> <p>a) <b>Detailed Sequencing Plan for watercourse realignment and wetland compensation and rehabilitation;</b>  b) <b>Detailed Sediment and Erosion Control Plan;</b>  c) <b>Comprehensive Watercourse and Wetland Monitoring Plans; and d. Landscape and Planting Plans</b></p> <p><b>It is recommended that NPCA's Planning and Permit Procedural Manual (including Appendix K: Landscape Plan Guidelines and Appendix L: Channel Modification Checklist and Submission requirements) is referred to when completing certain Plans.</b></p>	Stantec	<p>Detailed sequencing and refinements to the plan, including Erosion and Sediment Control are add to the Site Plan notes and will be further refined in consultation with he MNRF.</p> <p>Ecological monitoring of wetlands will be complimentary to the water resource monitoring recommended in the Water Resource Report (WSP 2024). The monitoring will be developed in consultation with MNRF. The monitoring will include bot the newly created riparian wetland along the realignment and the control wetland.</p> <p>Plots and transect will be established in the wetlands. The corners of each plot will be marked with wood stakes and flagged with orange flagging tape. The corners of the plots will be recorded using a high accuracy sub-metre GPS unit and added to mapping.</p> <p>In each monitoring plot, several observations will be recorded to accurately characterize the conditions. A detailed list of the canopy trees (for treed features), understory or shrub-layer species and herbaceous ground layer species will be recorded for each plot, including the percent cover of each species within the plot. The general health of mature trees (greater than 10 cm diameter at breast height) within 5 m of each plot and standing water depth will be recorded.</p> <p>Data for each plot will be collected in sufficient detail to establish benchmarks for percent invasive species, average Coefficient of Wetness (CW), average Coefficient of Conservatism (CC) and Floristic Quality index (FQI), so that changes in floral composition can be identified.</p>

**APPENDIX 6: ACOUSTIC ASSESSMENT REPORT COMMENTS**

UPPER'S QUARRY

DATE: April 2024

	Comment	Responder	Applicant Response
<b>Appendix 6: Acoustic Assessment Report Comments, Regional and City planning staff, Englobe</b>			
	Detailed Peer Review (Englobe) Comments:		
4.	<p>An 8-metre noise barrier is listed as part of the noise control recommendations in Section 6 and is shown on Figures 2f, 2g, 2i, and 3k to 3n. However, the Report is unclear as to why the barrier is necessary, as there are no noise level predictions showing non-compliance in a scenario which does not include the 8-metre barrier. It is recommended that the report be updated to increase clarity regarding how or why this 8-metre noise barrier has been recommended, which could include CadnaA noise level predictions for a no-barrier condition. <b>RWDI response in the JART Comment Response Matrix (dated August 25, 2023) addresses this concern. In short, it is understood that the 8-metre noise barrier is required in order for the processing plant to meet the applicable overall sound level criteria. RWDI offers a justification regarding why unmitigated values are not presented as part of the AAR, which is acceptable in Englobe's opinion. However, Section 6, Item 3 of the AAR, as well as Drawing 4 of the Updated ARA Site Plans prepared by MHBC, dated August 2023, are not consistent with RWDI's modelling results in Figures 3m and 3n of the AAR, since there is only mention of an 8-metre barrier being required for Phase 4. Figures 3m and 3n of the AAR represent Phase 5, and include the 8-metre tall barrier. <b>Englobe recommends updating Drawing 4, Item A.5 to also include Phase 5.</b></b></p>	RWDI / MHBC	<p>Drawing 4, Note A.5 is wording exactly the same as the AAR recommendation in Section 6, Item 3.</p> <p>The AAR recommendation states: "While processing in Phase 4, the licensee shall maintain an 8 m tall barrier at a radius of 40 m to the southeast of the processing plant secondary crushers as shown in <b>Figures 2f and 2g</b>. The barrier can be material stockpiles, noise walls, or a combination of both. The barrier shall extend long enough to shield R4 and R5 from the secondary crushers". The two Figures 2f and 2g illustrate the 8 m Berm for the Processing Plant in the same location in Phase 4 as what is shown on the ARA Site Plans.</p> <p>To clarify, material extracted from Phase 5 is to be processed in Phase 4. Therefore, the recommendation and the Note are consistent. The recommendation and the Note do not indicate that the 8 metre tall barrier is only required for Phase 4 but "while processing in Phase 4". This includes processing of material extracted in Phase 5.</p> <p>We hope this provides the clarity needed and, therefore, no change is required to Drawing 4, Item A.5.</p>
5.	<p>Section 6 of the Report indicates that the 8-metre noise barrier (mentioned above) "shall extend long enough to shield R4 and R5 from the secondary crushers." It is recommended that the Report be updated such that the 8-metre barrier location and dimensions be given precisely, or that RWDI confirm that WAI's proposed barrier geometry will shield R4 and R5 from noise as modeled in CadnaA. <b>RWDI response in the JART Comment Response Matrix (dated August 25, 2023) addresses this concern. In short, specific dimensions were not provided in order to provide some flexibility for the site operations. As such, the barrier geometry is described using qualitative means only: "the barrier shall be long enough to shield receptors R4 and R5 from the secondary crushers". <b>Englobe recommends adding additional language to both the AAR and Drawing 4 of the Updated ARA Site Plans prepared by MHBC to ensure that the distance between the processing plant secondary crushers and the 8- metre barrier is maintained at a radius of 40m.</b></b></p>	RWDI / MHBC	<p>At this time, the plant specifications and exact location are not known. Therefore, the current wording of the recommendation and Note on the Site Plan ensures that the shield length is enough to shield receptors R4 and R5. Language has been added to the report to note that in the event the plant shifts, the barrier must shift as such that receptors R4 and R5 are shielded.</p>

**APPENDIX 7: AIR QUALITY ASSESSMENT REPORT COMMENTS**

UPPER'S QUARRY

DATE: April 2024

	Comment	Responder	Applicant Response
<b>Appendix 7: Air Quality Assessment Report Comments, Regional and City planning staff and Englobe</b>			
	Detailed Peer Review (Englobe) Comments:		
	<p>S. 5.1 INTRODUCTION</p> <p>a. As the main purpose of the AQA report is to present dispersion modelling results, a short introduction to dispersion modelling would be welcome, including atmospheric processes, modeling objectives and options related to the project. <b>Comment addressed. The information provided in Section 1 is sufficient as long as more information is available in other sections. There appears to be an issue with cross-referencing in the document "Section 0" should likely be replaced by "Section 18" in Section 1.</b></p>	RWDI	Comment noted. Cross reference updated.
2.	<p>S. 5.2 SITE DESCRIPTION &amp; OPERATIONS:</p> <p>b. Detail the surrounding lands and building types and explain the potential effect of the quarry operations on those areas. <b>Comment not addressed. The selection process of the closest discrete receptors around the site is detailed in Section 5. See 5.5.a, 5.5.b, and 5.5.c. However, there is still no mention of a close residential area located east of the proposed extension, only a few hundred meters away.</b></p>	RWDI	<p>Receptors are reviewed for proximity to the source of emissions, meteorological conditions and overall sensitivity. In most cases, as in this one, the closer the receptors are to the sources of emissions, the higher the predicted concentrations are at the receptor location.</p> <p>Receptors in all cardinal direction were considered prior to identifying locations to include in the report for a summary of the results. RWDI completed additional analysis to review that the findings, as presented, do illustrate the worst-case receptors. A summary of the additional analysis is provided below:</p> <ul style="list-style-type: none"> <li>• A new receptor was added at 649790.00 mE, 4772650.00 mN, and elevation of 185.00 masl, which reflects the house in the residential area closest to the proposed Upper's Quarry.</li> <li>• Receptor R05, located at 649609.10 mE, 4772690.07 mN, and elevation of 185.00 masl is located between this new receptor and the proposed Uppers Quarry.</li> <li>• Previously, the maximum predicted concentration of TSP at receptor R05 was 41.0 µg/m<sup>3</sup> (85.0 µg/m<sup>3</sup> with ambient background added), which occurred during operations in modelling Scenario 3.</li> <li>• The same scenario shows a concentration of 31.6 µg/m<sup>3</sup> (75.6 µg/m<sup>3</sup> with ambient background added) at the new receptor, significantly lower than at receptor R05.</li> </ul> <p>To examine emissions associated with the asphalt plant, which has a tall stack, discharging vertically and at elevated temperatures, predicted emissions of benzo(a)pyrene were also modelled. At receptor R05, the predicted annual concentration was previously 2.01x10<sup>-07</sup> µg/m<sup>3</sup> (2.14x10<sup>-05</sup> µg/m<sup>33</sup> with ambient background added) for all scenarios modelled. In comparison, predicted concentrations at the new receptor are 1.54x10<sup>-07</sup> µg/m<sup>3</sup> (2.13x10<sup>-05</sup> µg/m<sup>3</sup> with ambient background added). Once again, predicted impacts at the new receptor are significantly lower at receptor R05, especially when looking at the project's direct contribution.</p>



	Comment	Responder	Applicant Response
			<p>The additional receptor analysis demonstrates that the further away from the proposed Upper's Quarry results in no changes to the assessment nor the proposed mitigation measures.</p> <p>No further model runs were conducted,</p> <p>Comment addressed.</p>
4.	<p>S. 5.4 OPERATING SCENARIO - This section is too vague and therefore requires clarification:</p> <p>b. Explain what "conservative" means in the context of the AQA study. <b>Comment not addressed. Specifying that "conservative" corresponds to an "upper range emission scenario" would add clarity and is an important part of the analysis.</b></p>	RWDI	<p>The report text now states:</p> <p>The maximum operating scenario examined in the assessment reflects the maximum production and shipping operations at the site during multiple phases in both the Proposed Operating Scenario. This scenario is meant to provide a conservative estimate of potential emissions, <b>also known as an upper range emission scenario</b>, as well as the location of operations. In all cases, it is expected that operations would realistically occur at levels below these levels over most of the life of the quarry.</p> <p>Comment addressed.</p>
8.	<p>S. 5.8 EMISSION ESTIMATION:</p> <p>b. Provide a reference for the silica content. Is a silica/PM10 ratio of 10% used to estimate silica concentrations from the PM10 concentrations modeled with AERMOD? <b>Comment partially addressed. The reference for Silica has been added to Section 8. Silica as a "% of PM10" appears in the tables but should also appear in Section 8 for clarity.</b></p>	RWDI	<p>The report text now states:</p> <p>"Emissions of crystalline silica were estimated using a very conservative silica content in the resource of 10% <b>in PM<sub>10</sub></b>. As this resource is comprised of dolostone, 10% reflects an upper bound, with values closer to 2% being the norm in this deposit."</p> <p>During review, it was noted by RWDI that the silica value used in Appendix D had not been updated to reflect the value of 10%. This oversight has been addressed, and the dispersion modelling results updated accordingly. As Appendix D only provides predicted emissions for fugitive dust from roads, the overall effect on the dispersion modelling results is not proportional to the change in predicted silica emissions in road dust.</p> <p>It must once again be emphasized that not only is 10% a highly conservative value for the silica content of dolostone, but it is even more so with respect to PM<sub>10</sub> associated with dolostone. Crystalline silica is a far harder mineral than dolostone, and therefore abrades into smaller particles at a lower rate than dolostone. As the particle size decreases, the relative percentage of silica in the particle decreases as well. This has been demonstrated in the literature, as well as measurements conducted by RWDI. Therefore, the predicted concentrations provide a conservative overestimate.</p> <p>There are no changes to the conclusions, nor the recommendations.</p> <p>Comment addressed.</p>
9.	<p>S. 5.9 DISPERSION MODELLING:</p> <p>d. The wind rose shown below indicates that the prevailing wind direction is mostly between the southwest and the northwest, but it has also a strong component from the east. <b>Comment not addressed. The report should include a short description of the wind directions used in this AQ assessment since the wind direction is the key parameter driving the atmospheric dispersion of the fugitive dust in the vicinity of the project site.</b></p>	RWDI	<p>Wind directions are integral to running the AERMOD dispersion model. Air Quality Assessments do not normally include a description of the wind directions used in the analysis because over 40,000 hourly wind speeds and directions are included in the analysis (in this case, 41,868 hours) , as stated in the AERMOD output file:</p> <p>A Total of 43848 Hours Were Processed</p> <p>A Total of 0 Calm Hours Identified</p> <p>A Total of 1980 Missing Hours Identified (4.52 Percent)</p> <p>Describing the winds in written form in the report text is not material to the analysis.</p> <p>Comment addressed.</p>
11.	S. 5.11 BACKGROUND AIR QUALITY:	RWDI	The report now states:

	Comment	Responder	Applicant Response
	<p>a. "Background values were estimated." Confirm this is PM2.5 background data.</p> <p>b. "Nearest" is too vague. It's better to specify the distance between the project site and the closest MECP monitoring station, such as: "St. Catharine's ambient air monitoring station (43°9'36"N, 79°14'5"W) is located 9 km from the proposed Upper's Quarry site". This AQ station is considered an urban site. In general, PM and NO2 levels are expected to be higher at an urban site than in a rural area where Upper's Quarry would be located.</p> <p>Comment a-b partially addressed. Please specify: "PM2.5 background concentration values were estimated using data from the nearest MECP monitoring station (MECP Station ID 27067) ...".</p>		<p>The cumulative effect assessment considered the impact of the project's emissions in combination with background contaminant levels from other sources in the surrounding area. Background values of PM<sub>2.5</sub>, NO<sub>2</sub>, and O<sub>3</sub> and were estimated using data from the nearest MECP monitoring station (MECP Station 27067 in St. Catharines. As per the Air Quality in Ontario Reports, published by the MECP, the St. Catharines monitoring station is located at latitude 43°09'36.2" and longitude -79°14'05.1". The street address is 62 Argyle Crescent, St. Catharines. It is located approximately 8.5 km from the subject site. This AQ station is considered an urban site. In general, PM and NO2 levels are expected to be higher at an urban site than in a rural area where Upper's Quarry would be located.</p> <p>TSP and PM<sub>10</sub> were estimated from the station measured PM<sub>2.5</sub> data using factors derived from analysis of extensive monitoring data from other sites, as presented by the 2004 report by Lall et. al. Silica was estimated using published data for cities in the northeast US (U.S. EPA, 1996).</p> <p>Comment addressed.</p>
13.	<p>S. 5.13 UNCERTAINTIES:</p> <p>b. "... to estimate impacts under worst-case weather." Explain what "worst-case" means here.</p> <p>Comment not addressed. Please provide examples such maximum wind speed considered, absence of rainfall in the simulations that could naturally mitigate the dust issue.</p>	RWDI	<p>It is not possible to provide "examples such maximum wind speed considered, absence of rainfall in the simulations that could naturally mitigate the dust issue."</p> <p>Rainfall is not considered by AERMOD unless the wet depletion algorithms are invoked, which is not permitted by the MECP when conducting air quality assessments in Ontario without prior authorization and consultation (which was neither sought nor obtained). Rainfall is therefore not considered in the analysis.</p> <p>"Worst-case weather" refers to the combination of 13 individual meteorological parameters used by the AERMOD model to predict pollutant transport (when run without wet or dry depletion algorithms) that results in the highest predicted concentrations for the sources and terrain modelled. All particulate concentrations are 24-hour average values, therefore there are 24 separate combinations of those 13 meteorological parameters that lead to the worst-case predicted impacts (e.g., worst-case weather). The 13 parameters are listed below:</p> <ul style="list-style-type: none"> <li>• Sensible Heat Flux</li> <li>• Surface Friction Velocity</li> <li>• Convective Velocity Scale</li> <li>• Vertical Potential Temperature Gradient above planetary boundary layer</li> <li>• Height of Convectively-Generated Boundary Layer – Planetary Boundary Layer</li> <li>• Height of Mechanically-Generated Boundary Layer – Surface Boundary Layer</li> <li>• Monin-Obukhov Length</li> <li>• Surface Roughness Length</li> <li>• Bowen Ratio</li> <li>• Albedo</li> <li>• Wind Speed</li> <li>• Wind Direction</li> <li>• Temperature</li> </ul> <p>Precipitation, humidity, surface pressure and cloud cover parameters are not included in MECP meteorological data files and have no influence on predicted concentrations as neither the wet nor dry depletion algorithms were used.</p> <p>To provide an example, the table appended to this response (below) provides the meteorological conditions that result in the maximum predicted concentration for total suspended particulate, which occurs under Scenario 2, at Receptor R08, on date code 971209 in the MECP data set.</p> <p>Comment addressed.</p>

YY	MM	DD	Julian Day	HH	Sensible Heat Flux (W/m2)	Surface Friction Velocity (m/s)	Convective Velocity Scale (m/s)	Vertical Potential Temperature Gradient above PBL	Height of Convectively-Generated Boundary Layer - PBL (m)	Height of Mechanically-Generated Boundary Layer - SBL (m)	Monin-Obukhov Length (m)	Surface Roughness Length (m)	Bowen Ratio	Albedo	Wind Speed (m/s)	Wind Direction (degrees)	Reference Height for Wind Speed and Direction (m)	Temperature (K)	Reference Height for Temp (m)	Precipitation Code (0-45)	Precipitation Rate (mm/hr)	Relative Humidity (%)	Surface Pressure (mb)	Cloud Cover (tenths)	Wind Data Flag *	Data Substitution
97	12	9	343	1	-3.4	0.082	-9	-9	-999	56	14	0.097	0.5	1	1	93	10	270.9	2	0	-9	999	980	10	NAD-SFC	NoSubs
97	12	9	343	2	-7.3	0.117	-9	-9	-999	96	19.2	0.097	0.5	1	1.5	62	10	271.4	2	0	-9	999	980	10	NAD-SFC	NoSubs
97	12	9	343	3	-7.3	0.117	-9	-9	-999	96	19.2	0.097	0.5	1	1.5	62	10	271.4	2	0	-9	999	980	10	NAD-SFC	NoSubs
97	12	9	343	4	-7.3	0.117	-9	-9	-999	96	19.2	0.097	0.5	1	1.5	71	10	271.4	2	0	-9	999	980	10	NAD-SFC	NoSubs
97	12	9	343	5	-14.8	0.168	-9	-9	-999	166	31.2	0.097	0.5	1	2.1	64	10	271.4	2	0	-9	999	980	10	NAD-SFC	NoSubs
97	12	9	343	6	-14.8	0.168	-9	-9	-999	166	31.2	0.097	0.5	1	2.1	47	10	271.4	2	0	-9	999	980	10	NAD-SFC	NoSubs
97	12	9	343	7	-14.8	0.168	-9	-9	-999	166	31.2	0.097	0.5	1	2.1	46	10	271.4	2	0	-9	999	980	10	NAD-SFC	NoSubs
97	12	9	343	8	-7.3	0.117	-9	-9	-999	97	19.2	0.097	0.5	1	1.5	59	10	272	2	0	-9	999	980	10	NAD-SFC	NoSubs
97	12	9	343	9	-14.3	0.169	-9	-9	-999	167	31.4	0.097	0.5	0.79	2.1	61	10	272	2	0	-9	999	980	10	NAD-SFC	NoSubs
97	12	9	343	10	-14.4	0.214	-9	-9	-999	237	59.3	0.097	0.5	0.68	2.6	62	10	272.5	2	0	-9	999	980	10	NAD-SFC	NoSubs
97	12	9	343	11	-9.7	0.305	-9	-9	-999	404	254	0.097	0.5	0.63	3.6	70	10	273.1	2	0	-9	999	980	10	NAD-SFC	NoSubs
97	12	9	343	12	6.3	0.401	0.354	0.011	243	608	-886.7	0.097	0.5	0.62	4.6	69	10	273.1	2	0	-9	999	980	9	NAD-SFC	NoSubs
97	12	9	343	13	0.1	0.311	0.095	0.009	244	421	-8888	0.097	0.5	0.62	3.6	81	10	273.1	2	0	-9	999	980	10	NAD-SFC	NoSubs
97	12	9	343	14	-3.2	0.221	-9	-9	-999	253	293.5	0.097	0.5	0.62	2.6	75	10	273.1	2	0	-9	999	980	10	NAD-SFC	NoSubs
97	12	9	343	15	-9.9	0.215	-9	-9	-999	240	87.9	0.097	0.5	0.65	2.6	75	10	273.8	2	0	-9	999	980	10	NAD-SFC	NoSubs
97	12	9	343	16	-24	0.299	-9	-9	-999	392	98.2	0.097	0.5	0.71	3.6	63	10	273.1	2	0	-9	999	980	10	NAD-SFC	NoSubs
97	12	9	343	17	-7.3	0.117	-9	-9	-999	131	19.2	0.097	0.5	0.89	1.5	72	10	273.1	2	0	-9	999	980	10	NAD-SFC	NoSubs
97	12	9	343	18	-7.3	0.117	-9	-9	-999	96	19.2	0.097	0.5	1	1.5	84	10	273.1	2	0	-9	999	980	9	NAD-SFC	NoSubs
97	12	9	343	19	-14.7	0.168	-9	-9	-999	166	31.2	0.097	0.5	1	2.1	64	10	273.1	2	0	-9	999	980	10	NAD-SFC	NoSubs
97	12	9	343	20	-7.3	0.117	-9	-9	-999	97	19.2	0.097	0.5	1	1.5	64	10	272.5	2	0	-9	999	980	10	NAD-SFC	NoSubs
97	12	9	343	21	-21.3	0.212	-9	-9	-999	234	49.3	0.097	0.5	1	2.6	91	10	273.1	2	0	-9	999	980	10	NAD-SFC	NoSubs
97	12	9	343	22	-7.3	0.117	-9	-9	-999	100	19.2	0.097	0.5	1	1.5	65	10	273.1	2	0	-9	999	980	10	NAD-SFC	NoSubs
97	12	9	343	23	-21.3	0.212	-9	-9	-999	234	49.3	0.097	0.5	1	2.6	77	10	273.1	2	0	-9	999	980	9	NAD-SFC	NoSubs
97	12	9	343	24	-21.3	0.212	-9	-9	-999	234	49.3	0.097	0.5	1	2.6	87	10	273.1	2	0	-9	999	980	10	NAD-SFC	NoSubs

**APPENDIX 8: BLASTING IMPACT ASSESSMENT COMMENTS**

UPPER'S QUARRY

DATE: April 2024

	Comment	Responder	Applicant Response
<b>Appendix 8: Blasting Impact Assessment Comments, Regional and City planning staff and Englobe</b>			
	New Comments		
1.	It is recommended that a written protocol be provided to the City and Region and posted on the Walker website advising residents of the process should property damage from blasting be suspected. This protocol should be referenced on the ARA Site Plan drawings as appropriate.	Walker/Explotech	With each claim being unique, it is appropriate for Walker to determine how they wish to proceed and respond to each investigation. Furthermore, given that contact numbers and/or damage investigation processes are subject to change, this information will not be explicitly stated on the ARA site plan. With that said, Walker provides a contact number and email address for a quarry representative for each of their operations on their website. Walker's website will be updated to include contact information for a representative of Upper's Quarry if approved. Alternatively, complaints can be made to the MNR if there is concern that provincial standards for blasting is not being met.

**APPENDIX 9: TRAFFIC IMPACT STUDY COMMENTS**

UPPER'S QUARRY

DATE: April 2024

	Comment	Responder	Applicant Response
<b>Appendix 9: Traffic Impact Study Comments, Regional and City Transportation Staff</b>			
	<p><b>New Comment</b></p> <p>Based on the revised submission the following is provided. <b>These comments are advisory, and will need to be addressed through a future detailed design process.</b></p>		Noted. No response required at this time.
1.	<p>Regional Road, Entrance and Permits. Comments with regard to the proposed entrance are as follows:</p> <ul style="list-style-type: none"> <li>a. The conceptual designs have been updated. TYLin conducted a sightline analysis and determined that both trucks and passenger vehicles have acceptable sightlines and can enter the northbound stream of traffic without a northbound acceleration lane.</li> <li>b. Regarding the conceptual road design (Figure CD1), Option 1 is the preferred solution by Regional transportation staff, with both northbound and southbound deceleration lanes. Given the volume of trucks, northbound and southbound deceleration is preferred.</li> <li>c. Detailed Engineering drawings for the road improvements will need to be submitted for review and approval by Regional transportation staff with the following planning application or prior to the application for an entrance/construction encroachment permit.</li> <li>d. An illumination warrant is to be completed</li> </ul> <p>The functional drawing hasn't shown the opposite existing access for DMZ Paintball, which will be affected by their proposed widening on the west. Future engineering drawings submission should include existing accesses</p>	TYLin/Walker	Noted.
2.	<p>Due to the operations at the quarry the Region will require that the Region and Owner enter a maintenance agreement for Townline Road which will address requirements as such:</p> <ul style="list-style-type: none"> <li>a. Street sweeping as required at the responsible of the Quarry</li> </ul> <p>Once the quarry has been closed – review of the road design will be reviewed and if modifications are required the reconstruction of the road will be the responsibility of the Quarry/owner</p>	TYLin/Walker	Noted.
3.	<p>REGIONAL CONSTRUCTION ENCROACHMENT PERMIT - Prior to any construction/work taking place within the Regional road allowance, a Regional Construction, Encroachment, and entrance Permit must be obtained from the Transportation Services Division, Public Works Department.</p>	TYLin/Walker	Noted.
4.	<p>REGIONAL SIGN PERMIT - Please note that the placement of any sign, notice or advertising device within 20m of the centerline of Ontario Street will require a Regional Sign permit. Permit applications can be made through the following link: <a href="http://niagararegion.ca/living/roads/permits/default.aspx">http://niagararegion.ca/living/roads/permits/default.aspx</a></p>	TYLin/Walker	Noted.

**APPENDIX 10: CULTURAL HERITAGE COMMENTS**

UPPER'S QUARRY

DATE: April 2024

	Comment	Responder	Applicant Response
<b>Appendix 10: Cultural Heritage Comments, City Planning Staff and City's Municipal Heritage Committee</b>			
2.	City Planning Staff are continuing to consult with Indigenous groups regarding the assessment. Further comments may be provided at a future date following comments received from the Indigenous groups. <b>Consultation with Indigenous groups is ongoing. JART will provide any additional comments or information as it becomes available.</b>		Agreed. No response required.

**APPENDIX 11: VISUAL IMPACT STUDY COMMENTS**

UPPER'S QUARRY

DATE: April 2024

	Comment	Responder	Applicant Response
<b>Appendix 11: Visual Impact Study Comments, City Landscape Architecture</b>			
1.	<p>The Operational Plan (drawing 2 of 6) shows a Typical Berm – Adjacent to Beechwood Road Detail that is 3 metres in height. This will screen the view of the quarry from pedestrians and those travelling in vehicles. <b>A height of 4.5 metres is requested to provide enhanced visual screening.</b></p>	MHBC (Visual)	<p>With respect to the requested 4.5 berm, it is our professional opinion that the current 3.0M berm will be sufficient for multiple reasons.</p> <p>Firstly, as shown on the Cross Section drawings, a 3m berm blocks possible views from the public right of way. While a possible view from the second story of the Bible Baptist Church is noted, we have previously stated that the Church has entered into an agreement with Walker with regards to the Quarry and further vegetation screening will be provided as part of the Landscape Plan found in Appendix B.</p> <p>In addition, as noted on the Mitigation Plan, Planting will be provided at grade in front of the Berms along Beechwood Road, and along the berm adjacent to the Hydro Corridor. This planting will extend above the proposed height of the berms, providing further mitigation above and beyond what is required to screen views.</p>
2.	<p>The Report Recommendations Plan (drawing 4 of 6) shows a Typical Visual Berm Detail that is 2.4 metres in height. This will screen the view of the quarry from pedestrians and those travelling in vehicles.</p>	MHBC (Visual)	Comment noted.
3.	<p>The Report Recommendations Plan (drawing 5 of 6) Typical Visual berm Detail that is 2.4 metres in height. This plan also shows 3 enlargements of Extended Planting areas 1, 2 and 3. These area include a visual berm, large planting stock, small planting sock and a 6 metres wide planting area at grade.</p>	MHBC (Visual)	Comment noted.
4.	<p>This page also provides written specifications on the proposed berms and plant material, under Item G: Visual. (clauses added to conditions where applicable)</p> <p>a) Item #3 (Plant Material)</p> <p>i. Native, non-invasive species which are also wind and salt tolerant are proposed. <b>Please include the term “drought tolerant”.</b></p> <p>b) Extended Planting Areas</p> <p>i. Trees will be spaced from 5-10 metres on centre, which is acceptable.</p> <p>ii. <b>Please provide a typical layout plan or describe in words the spacing of the plant material.</b></p> <p>c) Large Planting Stock</p> <p>i. The 40 mm caliper for deciduous trees is acceptable.</p>	MHBC (Visual)	<p>a) Drought tolerance has been noted as a selection requirement for plant material under point C) of the Recommendations section 9.0.</p> <p>b) A typical layout figure for planted berms and at grade planting has been provided in the recommendations section showing how plant material is to be typically laid out.</p> <p>c) The proposed large planting stock for the coniferous tree planting stock has been increased to 1.5m as noted in the Recommendations section and planting figure.</p> <p>d) The proposed small planting stock for the coniferous tree planting stock has been increase to 1.2m as noted in the Recommendations section and planting figure. A typical layout figure for planted berms and at grade planting has been provided in the recommendations section showing how plant material is to be typically laid out.</p> <p>e) The White pine typo has been corrected. Eastern Hemlock and American Larch have been added as additional coniferous species. With regards to drought tolerant species, we note that no species proposed require a consistent presence of moist soil to thrive outside of establishment. We note it is typical to see species such as dogwood and cedars along roadside conditions and are confidence that reflecting these conditions will achieve similar establishment success.</p>

	Comment	Responder	Applicant Response
	<p>ii. <b>The 1 meter height for coniferous trees is undersized. It is recommended to increase the height to at least 1.5 metres. A 1 metre high conifer will take a long me to increase in height and to contribute to the intended visual screen.</b></p> <p>iii. Shrub species are proposed at 40 cm in height, which is acceptable.</p> <p>iv. There is insufficient information to analyze the amount and spacing of proposed plant material. Please provide a typical layout plan or describe in words the spacing of the plant material.</p> <p>d) Small Planting Stock</p> <p>i. The 1.2 metre high tree whips for deciduous trees is acceptable.</p> <p>ii. <b>The 0.6 metre height for coniferous trees is undersized. It is recommended to increase the height of the coniferous trees to 1.2 metre. A 0.6 metre height will struggle to compete with the proposed wildflower and naturalization groundcover mixes.</b></p> <p>iii. Shrub species are proposed at 20 cm in height, which is acceptable.</p> <p>iv. <b>There is insufficient information to analyze the amount and spacing of proposed plant material. Please provide a typical layout plan or describe in words the spacing of the plant material.</b></p> <p>e) Plant List</p> <p>i. White Pine is mentioned twice and White Spruce is mentioned twice <b>(please revise).</b></p> <p>ii. A total of 3 coniferous tree species are proposed. <b>Please see comment above and provide 2 additional coniferous tree species.</b></p> <p>iii. A total of 8 deciduous tree species are proposed.</p> <p>iv. A total of 6 deciduous shrub species are proposed.</p> <p>v. As this is a proposed naturalized type of planting to be located on berms and roadways, it is assumed that the plant species will need to be drought tolerant. <b>Please verify that all species will be drought resistant/ do not require most soil conditions (e.g. dogwood, white cedar, etc).</b></p> <p>f) Monitoring</p> <p>i. Item #5 proposes to water and monitor the planted trees for the first year. <b>This should care should also be extended to the proposed shrubs.</b></p> <p>ii. After the first year, the monitoring is proposed to occur bi-annually (every other year). <b>It is recommended that the plant material is monitored with dead plant material being replaced annually.</b></p> <p>Item #6 notes that a mortality rate of 15% is expected over the 5 year maintenance period and that only dead trees above this percentage will be replaced. <b>This is not a best practice in landscape architecture. All dead trees and shrubs should be replaced (i.e. no acceptable mortality rate).</b></p>		<p>f) Shrubs have been noted to be part of the monitoring period. Within the warranty period, 100% of all dead trees will be replaced. Within the subsequent maintenance period, it is expected that there may be a mortality rate of up to 15 % of all trees planted over the course of the five year maintenance period due to factors such as adjacent plant growth and natural succession. Trees that die exceeding this percentage shall be replaced yearly</p>



APPENDIX 12: ECONOMIC BENEFITS ANALYSIS COMMENTS

UPPER'S QUARRY

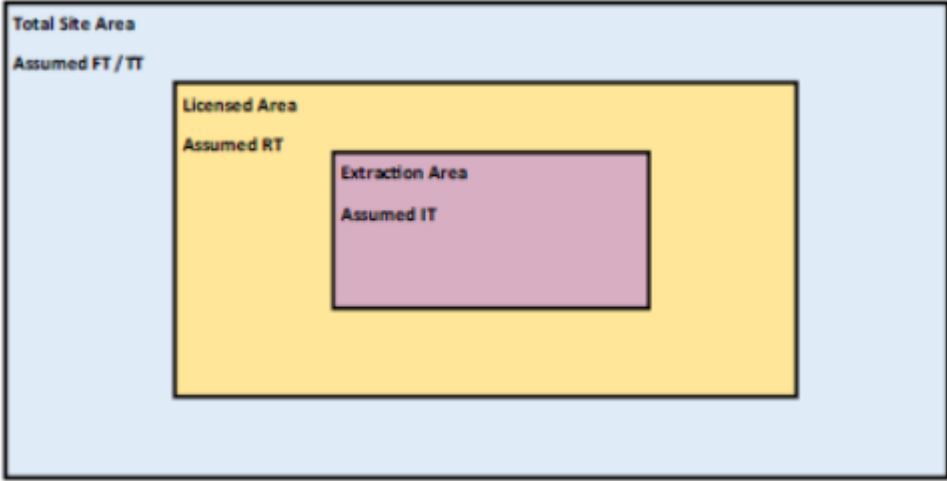
DATE: April 2024

	Comment	Responder	Applicant Response
<b>Appendix 12: Economic Benefits Analysis Comments, Regional and City staff and Watson &amp; Associates</b>			
1.	<p>In general, the report focusses on revenues the municipalities will receive (e.g. property taxes, TOARC fees, etc.). With respect to municipal expenditures, no identification of operating or capital costs have been included. Although this was not explicitly included in the terms of reference submitted as part of the pre-consultation process, consideration should be given to addressing this information to support the decision-making process.</p> <p>Consideration should be given to Regional Official Plan 14.D.5 which states "...Where an Amendment is proposed to the Regional Official Plan, the Region shall consider the following criteria in evaluating the Amendment...viii. The effect of the proposed change on the financial, health, safety, and economic sustainability of the Region..." as well as City of Niagara Falls Official Plan policy</p> <p>Part 4 Section 2.6 "When considering an amendment to the Official Plan, Council shall consider the following matters. ...2.6.7 The financial implications of the proposed development..."</p> <p><i>No additional information on impacts to operating costs were provided. The Planning Justification Report, Page 5 states the following:</i></p> <p><i>For the past 17 years, Walker has acquired land in the City of Niagara Falls, Region of Niagara where high quality bedrock is situated for the purpose of establishing a new quarry. The proposed quarry is located just over 2 kms south of Walker's other quarry in the City of Niagara Falls which is nearing depletion.</i></p> <p><i>For this purpose, Walker is applying for amendments to the Niagara Region Official Plan, the City of Niagara Falls Official Plan, and the City of Niagara Falls Zoning By-law under the Planning Act to permit the mineral aggregate quarry operation on the "proposed quarry site" or "subject lands"...</i></p> <p><i>As stated, this quarry is being proposed as a continuation of existing operations. This was further reflected in the February 17, 2022 meeting with the applicant's consultants. As such, if there is no incremental employment arising from the site (i.e. the same number of employees at the other site work at this site), and no additional capital costs are required, then assuming no incremental operating costs would be a fair assumption. This should be noted in the analysis.</i></p>	Prism/MHBC	<p>The project is not proposed as a continuation of existing operations but as a separate operation on a separate property and should be considered on its own merits. Walker owns numerous properties and operations in the Region with one operation not necessarily dependent on the other but are instead dependent on the finite underlying resource that they extract in that location. The nearest Walker property to the site is not depleted and is expected to continue operations for approximately five (5) years after this site, if approved, enters production.</p> <p>Since the project is a separate operation and not a continuation, it is not the case that no operating and capital costs will exist for the project. Rather, any potential costs that have been identified are not be imposed on the City and Region. If the proposed applications and licence are approved, Walker is committed to, for example:</p> <ul style="list-style-type: none"> <li>all necessary capital upgrades required for the sole purpose of the quarry and to accommodate quarry traffic including upgrades at the intersection of Upper's Lane and Thorold Townline Road will be at Walker's expense. Walker is committed to enter into a legal agreement with the Region and/or City to cover the necessary costs associated with these capital upgrades.</li> <li>any relocation of existing utilities and /or the introduction of new utilities required to serve or accommodate the quarry will be at the expense of Walker and Walker is committed to enter into any necessary agreements with utility providers.</li> <li>all mitigation and monitoring requirements set out on the ARA Site Plans and are associated with the proposed quarry on and where agreed to by other landowners off site will be the responsibility of Walker.</li> </ul> <p>The policy test that triggered the JART's request for the Economic Study in the first place was in the City OP as follows:</p> <p>"Policy 7.4 Uses of land and the creation of lots not related to agricultural uses are not permitted in the Good General Agriculture Area. However, Council may consider a site specific amendment to this Plan to remove lands from the Good General Agriculture designation for non-agricultural use where it has been demonstrated that the use cannot be accommodated in a non-agricultural designation. In addition, the siting of a non-agricultural use shall be supported by qualified evidence demonstrating matters of need for the proposed use over the next 20 years, poor soil capability and suitability of the site for the proposed development, no disruption of natural areas,</p>

	Comment	Responder	Applicant Response
			<p>effects on adjacent properties and financial impact on the City. The requirements of the Provincial Policy Statement and the Regional Niagara Policy Plan also shall be satisfied.</p> <p>All non-agricultural uses satisfying these policy requirements shall be subject to site plan review to regulate the extent of the use and mitigate any impact the use may have on adjacent lands.</p> <p>This Policy generally applies to any amendment to the Official Plan that proposes non-agricultural uses in the Good General Agriculture Area.</p> <p>It is anticipated that the proposed quarry will provide economic benefits to the Region and City and will have a net positive impact on the Region and City's finances. The proposed quarry uses are not anticipated to have any impact on the Region's or City's capital programs.</p>
2.	<p>With respect to the anticipated tonnage of aggregate to be extracted, the study provides that a maximum of 1.8 million tonnes may be extracted annually, whereas on average the production may equate to 1.3 million tonnes annually. However, through initial conversations, it appears this site may act as a replacement of existing quarry operations at another site owned by the applicant. As a result, it should be identified if the amount to be extracted from the new site is in addition to existing amounts or will replace current levels of extraction.</p> <p><i>As noted in Watson's response to item number 1, the Planning Justification Report and the conversations with the applicant's consultants confirm this site is being proposed as a result of the depletion of the existing quarry. The purpose of the Economic Benefits Study is to assist the municipalities in determining the additional revenues and economic benefits received. As this appears to be a continuation of existing quarry activities at another site, this should be clarified with respect to the average extraction from the other site. That is, if the average extraction from this site is 1.3 million tonnes of aggregate and the previous site was 1.0 million tonnes of aggregate, then the incremental benefit to the municipalities is 0.3 million tonnes of aggregate. This figure could then be used as the incremental tonnage upon which the economic benefits would be assessed. Otherwise, if the extraction level is the same, this should be noted to provide the municipalities with full information.</i></p>	Prism	The project is not proposed as a continuation of existing operations but as a separate operation on a separate property and should be considered on its own merits.
3.	<p>With respect to the economic impacts, the employment and salary information appears to have been undertaken appropriately using the Statistics Canada input-output multipliers. However, the calculations should be provided in further detail to allow the JART to review the specifics.</p> <p><i>In Watson's opinion, the purpose of this exercise is for the applicant to show the municipalities the Economic Benefits of the application. As such, the details of the calculations should be provided to substantiate the results.</i></p>	Prism	The calculations rely on proprietary data and are not available for distribution.
4.	Additionally, as the new proposed site is located on the border of Niagara Falls and Thorold, the study should includes financial and economic benefits for the City of Thorold as well as the	Prism	The calculations rely on proprietary data and are not available for distribution.

	Comment	Responder	Applicant Response
	<p>City of Niagara Falls and the Region as per the comments included in the pre-consultation agreement.</p> <p>The updated report includes economic benefits for the City of Thorold. As there is no property located in the City of Thorold, there is no change to assessment or tax revenue. As such, this comment has been addressed in the study.</p> <p>Note, however, that as per item 3 above, the detailed calculations were not provided.</p>		
5.	<p>S. 3.1.1 Aggregate Production - The report provides that the maximum annual extraction limit is 1.8 million tonnes of aggregate, with an anticipated average extraction amount of 1.3 million tonnes annually. However, through initial discussions with the applicant, it appears this new quarry site may be replacing the existing quarry site which is approximately 2.5 km away. As a result, the report should identify if the development of this quarry is a continuation of existing operations or would result in 1.3 million tonnes of aggregate in addition to the current site.</p> <p>As noted in Watson's response to item number 1, the Planning Justification Report and the conversations with the applicant's consultants confirm this site is being proposed as a direct result of the depletion of the existing quarry. The purpose of the Economic Benefits Study is to assist the municipalities in determining the additional revenues and economic benefits received. As this appears to be a continuation of existing quarry activities at another site, this should be clarified with respect to the average extraction from the other site. That is, if the average extraction from this site is 1.3 million tonnes of aggregate and the previous site was 1.0 million tonnes of aggregate, then the incremental benefit to the municipalities is 0.3 million tonnes of aggregate. This figure could then be used as the incremental tonnage upon which the economic benefits would be assessed. Otherwise, if the extraction level is the same, this should be noted to provide the municipalities with full information.</p>	Prism	<p>As set out under Section 2.5.2.1 of the PPS, any type of supply/demand analysis is not a requirement for long-term resource supply notwithstanding the availability, designation or licensing for extraction of mineral aggregate resources and therefore, a net impact analysis would not be appropriate in this case and is, accordingly, beyond the Terms of Reference approved for the proposed applications.</p> <p>The project is a separate operation on a separate property. If approved, there will be at least approximately five (5) years where the two quarries will be operating at the same time. However, if the resource is depleted, there will be no revenue or benefit to the City and Region from the WBQ once it is depleted. If resource is not available close to market as proposed by the Upper's Quarry applications, it will alternatively need to be trucked in from a longer distance at a higher cost to offset higher haulage fees.</p>
6.	<p>S. 3.1.2 Employment Impacts:</p> <p>a) The report notes the use of the Statistics Canada Input-Output multipliers. This approach is consistent with best practices in this field. However, the assumptions and approach to the calculations have not been identified. The anticipated construction price for the initial employment impacts has been identified at \$23 million, however, the assumption of ongoing revenues has not been provided.</p> <p>Further, if this site will be a replacement for the current site, the report should identify that these operations are a continuation of existing employment levels, with the addition of direct and indirect employment related to construction of the site.</p> <p>The report states the following:</p> <p><i>Economic multipliers calculated from Statistics Canada's Supply-Use tables were applied to revenue projections, to provide estimates for employment and wages. Those multipliers calculate Provincial impacts; a base analysis was further performed on the impact estimate at the 4-digit NAICS level in order to define the size of regional capture of those effects.</i></p>	Prism	<p>As discussed, the project is not proposed as a continuation of existing operations but as a separate operation on a separate property and should be considered on its own merits. I</p>

	Comment	Responder	Applicant Response																														
	<p>However, without the details of the calculations, it is not possible for JART to review the assumptions to confirm accuracy and/or provide comment.</p> <p>Additionally, with respect to Watson's response to item number 1. The additional employment should be identified relative to the existing operations this quarry will replace.</p>																																
7.	<p>S. 3.2.2 Assessment Assumptions - In estimating the assessment to be generated from the expansion of the quarry, Prism notes that they used the Income Approach in estimating the assessment, however, no calculations have been provided. Detailed calculations on the Income Approach estimate should be provided to allow the JART to undertake a review of the calculations. Based on the report, the total assessed value is \$44.6 million. When applied to the total acres of the property (262.67 acres), the total assessed value per acre is \$170,000. This estimate appears exceedingly high. The following provides for a comparison of quarries in various areas of Southern Ontario:</p> <table border="1" data-bbox="202 758 1299 1030"> <thead> <tr> <th>Municipality</th> <th>Address</th> <th>Total Assessed Value</th> <th>Total Acres</th> <th>Assessed Value per Acre</th> </tr> </thead> <tbody> <tr> <td>Niagara Falls</td> <td>2841 Garner Road</td> <td>4,161,000</td> <td>406.77</td> <td>10,229</td> </tr> <tr> <td>Port Colborne</td> <td>Concession Road 2</td> <td>1,204,000</td> <td>180.83</td> <td>6,658</td> </tr> <tr> <td>Lincoln</td> <td>3614 Victoria Ave</td> <td>2,548,000</td> <td>250.66</td> <td>10,165</td> </tr> <tr> <td>Hamilton</td> <td>834 Brock Road</td> <td>6,061,000</td> <td>666.35</td> <td>9,096</td> </tr> <tr> <td>Burlington</td> <td>1775 King Road</td> <td>1,652,000</td> <td>111.16</td> <td>14,861</td> </tr> </tbody> </table> <p>Source: MPAC PropertyLine Database</p> <p>As noted in the above sample of quarry properties, the assessed values per acre range from a low of \$6,658 to a high of \$14,861. Therefore the assessed value of \$44,600,000 (or \$170,000 per acre) is significantly higher.</p> <p>Rather than taking the Income Approach, in Watson's opinion, it would be more appropriate to undertake a survey of assessed values of quarries. Further, it is most appropriate to review the assessed value of quarry properties in the Region, rather than quarries in other regions. As part of the Assessment Act, section 44 (3) (b) notes that land valuation will have reference to the value of similar lands in the vicinity and make adjustments to maintain equity with these lands. As a result, a survey of quarry properties in the Region should be undertaken in estimating the assessed value. Note that if the assessed value per acre was based on the 2841 Garner Road property (currently owned by the applicant), then the total assessed value would be approximately \$1.1 million.</p> <p>Additionally, MPAC provides assessment adjustments to residential properties abutting and within 1km of quarries. The proposed quarry may reduce assessed values of residential properties in the area, thus reducing tax revenues. This should be included in the analysis.</p> <p>Finally, the loss of existing assessment and tax revenue should be included in the report.</p> <p>The revised report states that the Industrial land value is estimated based on an average of comparable sites in Southern Ontario. This value is \$11,088 per acre. There is no listing of the</p>	Municipality	Address	Total Assessed Value	Total Acres	Assessed Value per Acre	Niagara Falls	2841 Garner Road	4,161,000	406.77	10,229	Port Colborne	Concession Road 2	1,204,000	180.83	6,658	Lincoln	3614 Victoria Ave	2,548,000	250.66	10,165	Hamilton	834 Brock Road	6,061,000	666.35	9,096	Burlington	1775 King Road	1,652,000	111.16	14,861	Prism	No incremental operating or capital costs have been identified for this project that will be borne by the City and Region to include in the analysis.
Municipality	Address	Total Assessed Value	Total Acres	Assessed Value per Acre																													
Niagara Falls	2841 Garner Road	4,161,000	406.77	10,229																													
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	Comment	Responder	Applicant Response								
	<p>applicable sites used to determine this value. However, it is noted that this amount is within the range that Watson provided in the initial response.</p> <p>Adjustments to residential properties related to proximity to the quarry site have been addressed.</p> <p>The loss of existing assessment and tax revenue has not been identified.</p>										
8.	<p>S. 3.2.3 Tax Class Assumptions - The analysis assumes that the proposed quarry will be assessed as 100% industrial. This includes the licensed area, extraction area, and remaining areas. In our experience and based on the regulations to the Assessment Act, the industrial assessment (IT) applies to the extraction area, residential assessment (RT) would generally apply to the remaining licensed area, and any remaining lands may be assessed as farmland (FT) and/or managed forests (TT). This is provided in the following diagram:</p>  <p>We would note that this would be a fair assumption as the actual assessment class would depend on the use of the land as per the Assessment Act. For example, use is farming by a bona-fide registered tenant farmer then it might be FT otherwise, if farmed it could be RT at farmland assessment rates. The same would apply for the Managed Forest portions if the owner applies to the Ministry of Natural Resources and Forestry for the TT tax class consideration. The report only provides the total site area and does not identify the licensed area or extraction area. As a result of assuming industrial assessment only, the tax revenue has been overestimated since the tax rate for industrial properties is higher than that of residential and farm/managed forests. This should be recalculated to align with the Assessment Act.</p> <p>Based on the figures in the Planning and Justification report, the overall calculation estimates appear to provide a reasonable range of tax revenue.</p> <p>There is no reduction for the existing property tax revenue generated from the properties listed in Figure 2 of the Planning and Justification Report. This should be provided based on the properties identified.</p>	Prism	<p>Taxes from the baseline scenario (where the property is not developed) is relatively small. Using the same analytical approach (that is, keeping tax rates and property valuations contemporaneous with the existing assessment) has the values as the following:</p> <table border="1" data-bbox="1622 586 2862 923"> <thead> <tr> <th>Recipient of Fee</th> <th>Baseline Tax Amount</th> </tr> </thead> <tbody> <tr> <td>City of Niagara Falls</td> <td>\$ 3,879</td> </tr> <tr> <td>Niagara Region</td> <td>\$ 4,808</td> </tr> <tr> <td>Education</td> <td>\$ 1,114</td> </tr> </tbody> </table> <p>These values are significantly less than the difference between the high and low-impact scenarios.</p> <p>As requested, enclosed is an updated Report providing the reduction for the existing property tax revenue generated from the properties listed in Figure 2 of the Planning Justification Report.</p>	Recipient of Fee	Baseline Tax Amount	City of Niagara Falls	\$ 3,879	Niagara Region	\$ 4,808	Education	\$ 1,114
Recipient of Fee	Baseline Tax Amount										
City of Niagara Falls	\$ 3,879										
Niagara Region	\$ 4,808										
Education	\$ 1,114										

	Comment	Responder	Applicant Response																								
9.	<p>S. 3.2.4 Annual Aggregate Levy Fees - The report does not provide the details of the calculations for the aggregate licensing fee and is unclear. The aggregate licensing fee identified in the text is the 2020 rate and the percentage allocation to the City of Niagara Falls is incorrect. However, applying the correct percentages and 2022 rates, provides a similar result to that shown in Table 4 of the report.</p> <p>The Government of Ontario website provides the following breakdown of how the fees are allocated:</p> <ul style="list-style-type: none"> <li>Aggregate Resources Trust – 3%</li> <li>Local Municipality (City of Niagara Falls) – 61%</li> <li>Upper-tier Municipality (Niagara Region) – 15%</li> <li>Crown (Province of Ontario) – 21% Based on the assumption that there will be 1.3 million tonnes extracted annually, the revenues would be as follows (based on 2021 and 2022 rates):</li> </ul> <table border="1" data-bbox="180 796 1345 1064"> <thead> <tr> <th>Aggregate Levy Calculations</th> <th>Percentage Allocation</th> <th>2021 Fee/tonne \$0.208</th> <th>2022 Fee/tonne \$0.213</th> </tr> </thead> <tbody> <tr> <td>Aggregate Resources Trust</td> <td>3%</td> <td>\$8,112</td> <td>\$8,307</td> </tr> <tr> <td>Niagara Falls</td> <td>61%</td> <td>\$164,944</td> <td>\$168,909</td> </tr> <tr> <td>Niagara Region</td> <td>15%</td> <td>\$40,560</td> <td>\$41,535</td> </tr> <tr> <td>Ontario</td> <td>21%</td> <td>\$56,784</td> <td>\$58,149</td> </tr> <tr> <td><b>Total</b></td> <td></td> <td><b>\$270,400</b></td> <td><b>\$276,900</b></td> </tr> </tbody> </table> <p>Further, as the report is unclear if the extraction amounts from this site will be in addition to, or a continuation of, aggregate tonnages currently extracted, it is unclear if this revenue is in addition to the current revenue received or a continuation of revenues already received. This should be clarified in the report.</p> <p>Due to rounding, these numbers are slightly different than those calculated with 1.3 million tonnes of aggregate. These rounded numbers are reasonable estimates. As noted in item 1, the analysis should note that this is a replacement of existing revenues and not additional incremental revenue as compared to current revenues received.</p>	Aggregate Levy Calculations	Percentage Allocation	2021 Fee/tonne \$0.208	2022 Fee/tonne \$0.213	Aggregate Resources Trust	3%	\$8,112	\$8,307	Niagara Falls	61%	\$164,944	\$168,909	Niagara Region	15%	\$40,560	\$41,535	Ontario	21%	\$56,784	\$58,149	<b>Total</b>		<b>\$270,400</b>	<b>\$276,900</b>	Prism	No comment.
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10.	<p>City Staff request confirmation if property assessment are adjusted by MPAC in proximity to a quarry, and if so, the impact on property taxation.</p> <p>As noted above, this has been addressed as the buffer ensures no residential properties are abutting the quarry property.</p>	Prism	No comment.																								

**APPENDIX 13: CITY OF NIAGARA FALLS BUILDING DEPARTMENT COMMENTS**

UPPER'S QUARRY

DATE: April 2024

	Comment	Responder	Applicant Response
<b>Appendix 10: Cultural Heritage Comments, City Planning Staff and City's Municipal Heritage Committee</b>			
1.	All required Building Permits and Demolition Permits (not excluding any federal/provincial/regional/municipal, heritage approval, site-plan control, hydro-corridor, etc...) to be obtained prior to commencement of any construction/demolition/application-submission in accordance with the Ontario Building Act –Applicable Law, to the satisfaction of the Building Services Division and the Fire Prevention Division. <b>Comment addressed. An additional note has been added to the ARA Site Plan drawings.</b>		Agreed. No response required.
2.	City, Regional and Education Development Charges (not excluding Parkland Dedication Fee, if applicable) will be assessed during the review of the Building permit(s) application submission. <b>Comment was provided for information. No action required at this time.</b>		Agreed. No response required.
3.	Fire Prevention Division requires assessing the site proposal as it relates to on-site fire-fighting practices, i.e. private fire-route accesses, fire-hydrant locations (private and/or public), fire-department connection(s), etc.... <b>Comment addressed. An additional note has been added to the ARA Site Plan drawings.</b>		Agreed. No response required.
4.	Building application submission, spatial-separation fire-protection review shall be conducted. <b>Comment was provided for information. No action required at this time.</b>		Agreed. No response required.
5.	Geotechnical Report (not excluding any seismic data/recommendation/groundwater) shall be provided at building application submission. <b>Comment was provided for information. No action required at this time.</b>		Agreed. No response required.
6.	Please be advised, signage may require sign permits. Please telephone Building Services Division – Permit Application Technicians/Technologists at 905-356-7521, Extensions 4213 or 4344. <b>Comment was provided for information. No action required at this time.</b>		Agreed. No response required.

**APPENDIX 14: TRANSCANADA PIPELINE COMMENTS**

UPPER'S QUARRY

DATE: April 2024

	Comment	Responder	Applicant Response
<b>Appendix 14: TransCanada Pipeline Comments</b>			
	<p><i>*Note: TransCanda Pipeline Limited (TCPL) was circulated the notice of complete application and provided the comments below. <b>JART notes that it appears that the ARA drawings were updated to include the requirements of TCPL and that there is an additional provision that will need to be included the proposed zoning by-law amendment. The revised drawings were circulated to TCPL to confirm that the changes were acceptable – to date JART has received no response. We will communicate any response from TCPL as soon as it is received.</b></i></p>	MHBC	See TCPL letter dated November 17, 2023 – comments and responses further below.
	TransCanda Pipeline (TCPL) has provided the following comments to the JART upon receipt of the notice of application. These comments should be addressed in the resubmission package as appropriate.		
1.	TCPL requires notification for blasting within 300 metres of their right-of-way (easement). No blasting shall occur until written consent is obtained from TCPL.		
2.	Any other work (other than blasting) within 30 metres of TCPL’s right-of-way requires written consent.		
3.	Crossing of the TCPL right-of-way with vehicles is not permitted without written consent.		
4.	<p>No material extraction shall be permitted within 40 metres of TCPL’s right-of-way without written consent from the Canada Energy Regulator (CER, formerly NEB or National Energy Board)</p> <ul style="list-style-type: none"> <li>a. TCPL does not have the authority to consent to mining within 40 metres of their right-of-way.</li> <li>b. Please refer to: <a href="https://www.cer-rec.gc.ca/en/safety-environment/damage-prevention/ground-disturbance/index.html">https://www.cer-rec.gc.ca/en/safety-environment/damage-prevention/ground-disturbance/index.html</a></li> </ul>		
5.	No buildings or structures shall be installed anywhere on TCPL’s right-of-way. Permanent buildings and structures are to be located a minimum of 7 metres from the edge of the right-of-way. Temporary or accessory buildings are to be located a minimum of 3 metres from the edge of the right-of-way.		
6.	A minimum setback of 7 metres from the nearest portion of a TCPL pipeline right-of-way shall also apply to any parking area or loading area, including any parking spaces, loading spaces, stacking spaces, bicycle parking spaces, and any associated drive aisle or driveway.		



	Comment	Responder	Applicant Response
7.	TCPL is requesting the following setbacks be implemented through the ARA site plans and Zoning By-law Amendment:  No building, structure, parking or loading spaces, or related aisles or driveways may be located closer than 7.0m to the TransCanada pipeline right of way except accessory buildings which may not be located any closer than 3.0 m to the TransCanada pipeline right-of-way.		
	<b>TCPL letter dated November 17, 2023</b>		
	<b>TCPL request that Drawing 2 of 6 be updated as follows:</b> <b>Red strikethrough = deletion    Green underline = addition</b>	MHBC	The Site Plans have been updated to incorporate these changes.
1.	The licensee shall notify TCPL if it intends to blast within 300 metres of their right-of-way (easement). No blasting shall occur until written consent is obtained from TCPL.		
2.	Any other work (other than blasting) within 30 metres of TCPL's right-of-way requires written consent from TCPL.		
3.	Crossing of the TCPL right-of-way with vehicles is not permitted without written consent from TCPL.		
4.	No material extraction shall be permitted within <del>40</del> <u>30</u> metres of TCPL's right-of-way without written consent from the Canada Energy Regulator (CER), <del>formerly NEB or National Energy Board</del> .		
5.	No buildings or structures shall be constructed anywhere on TCPL's right-of-way. Permanent buildings and structures shall be located a minimum of 7 metres from the edge of the TCPL right-of-way. Temporary or accessory buildings <u>and structures</u> shall be located a minimum of 3 metres from the edge of the right-of-way.		
6.	A minimum setback of 7 metres from the nearest portion of a TCPL pipeline right-of-way shall also apply to any parking area or loading area, including any parking spaces, loading spaces, stacking spaces, bicycle parking spaces, and any associated drive aisle or driveway.		
	<b>For greater clarity of TCPL's setback requirements, we request that the Zoning By-law Amendment text be updated with the following provisions:</b>		The Zoning By-law Amendment text has been updated to include these provisions and is included as an appendix of the updated Planning Justification Report.
a.	A minimum setback of 7.0 m shall be required from any part of a permanent building or structure from the edge of the TransCanada pipeline right-of-way.		
b.	A minimum setback of 3.0 m shall be required from any part of a temporary or accessory building or structure from the edge of the TransCanada pipeline right-of-way.		
c.	A minimum setback of 7.0 m from the nearest portion of a TransCanada pipeline right-of-way shall also apply to any parking area or loading area, including any parking spaces, loading spaces, stacking spaces, bicycle parking spaces, and any associated aisle or driveway.		

**APPENDIX 15: CITY OF THOROLD COMMENTS**

UPPER'S QUARRY

DATE: April 2024

	Comment	Responder	Applicant Response
<b>Appendix 15: City of Thorold Comments, City of Thorold Planning Department</b>			
<b>9811V – Uppers Quarry – Site Plan – Redlined (August 2023)</b>			
1.	Within the Existing Features – Drawing 1 of 6, it appears that the zoning categories within City of Thorold, are referenced from the City of Thorold Comprehensive Zoning By-law 2140 (97), however no reference is provided. As of March 16, 2021, City of Thorold Comprehensive Zoning By-law No. 60-2019 came into effect, excluding Part 6: Residential Zones which are currently under appeal. Please update the existing features map, and references accordingly.	MHBC	<p>The following documents have been updated to reflect the City of Thorold Comprehensive Zoning By-law No. 60-2019:</p> <ul style="list-style-type: none"> <li>• Planning Justification Report Figures</li> <li>• Alternative Site Analysis Figures</li> <li>• Acoustic Impact Assessment Figures</li> <li>• Aggregate Resource Act Site Plans</li> </ul> <p>The changes that resulted in Comprehensive Zoning By-law 60-2019 coming into effect have been considered and there are no changes to the recommendations of these Reports as a result of By-law 60-2019 coming into effect.</p>
2.	Regarding the area identified for offsite Woodland Compensation Area, west of Thorold Townline Road within Drawing 4 of 6, it is noted that these lands are within the City of Thorold Urban Area, designated 'Employment – Light Industrial' and 'Employment – Prestige Industrial' within the City of Thorold Official Plan, Neighbourhoods of Rolling Meadows Secondary Plan. Additionally, these lands are zoned as "Other Zones – Future Development", within the City of Thorold Comprehensive Zoning By-law No. 60-2019. While it is understood that Walker Industries Holdings Ltd. owns the lands where compensation is proposed, the proposed compensation area should not inhibit the future development of these lands as set out by the City of Thorold's Official Plan and Zoning By-law 60-2019.	MHBC / Stantec	<p>In response to City of Thorold Staff's comments, the proposed location for off-site mitigation has been altered to: (i) shift mitigation plantings towards the south end of Walker's property in the City of Thorold (on the west side of Thorold Townline Road) and (ii) provide for additional plantings on Walker's property immediately north of the proposed quarry (on the east side of Thorold Townline Road).</p> <p>While future employment uses are important, this must be balanced with all policies set out in the Provincial Policy Statement. Walker owns a number of properties in the City of Thorold along Thorold Townline Road that can accommodate future employment uses where mitigation is not proposed. Furthermore, the property owned by Walker in the City of Thorold where mitigation is proposed was selected for the following reasons:</p> <ol style="list-style-type: none"> <li>i) this area is in close proximity to the 2.0 ha woodlot feature proposed to be removed, providing for a continuation of habitat;</li> <li>ii) greater linkage opportunity will be established with the watercourse realignment corridor;</li> <li>iii) given the size of the existing woodlot west of Thorold Townline Road, interior habitat can be established which does not exist today (by definition).</li> </ol> <p>With that said, we have reconfigured the proposed off-site mitigation on the employment lands in the City of Thorold so that plantings will be situated along the southerly portion of Walker's property in the City of Thorold. This reconfiguration optimizes land availability for future employment development opportunities north of the Trans-Canada Pipeline corridor on that specific property. By focusing mitigation plantings in the south portion of the property, additional interior habitat is provided and a continual linkage between the future realignment corridor and the larger and expanded woodlot feature to the west.</p>
<b>Planning Justification Report &amp; ARA Summary Statement, MHBC (August 2023)</b>			

	Comment	Responder	Applicant Response
3.	<p>It is agreed that the intent of the “Aggregate Impact Area” identified within The Neighbourhoods of Rolling Meadows Secondary Plan, and specifically Section B.1.8.12.3 of the Official Plan, as referenced within the report, is to ensure that future aggregate extraction will not be precluded or hindered and to achieve land use compatibility. It is also agreed that according to Section B.1.8.12.3 of the Official Plan, “mitigation measures shall be determined through appropriate studies prepared by the developer”. However, this section also states, “Once the proponent has prepared the appropriate studies and the necessary mitigation is incorporated into the proposed development, if necessary, the utilization of such mitigation measures does not relieve the new mineral aggregate operation from providing appropriate setbacks and mitigation measures in order to achieve land use compatibility”.</p>	MHBC / RWDI	<p>Agreed and the following is noted in response.</p> <p>Walker was actively involved in Thorold’s Rolling Meadows Secondary Plan dating back to 2005. That process identified the high quality aggregate resources that could be sterilized within the Secondary Plan area and potentially on the east side of Thorold Townline Road in the City of Niagara Falls if policy was not established to protect this resource. Accordingly, the Region modified the Secondary Plan to include Policy B.1.8.12.3 in the Rolling Meadows Secondary Plan, in order to ensure that PPS 2.5.2.5 would be properly implemented and that important aggregate reserves on the east side of Thorold Townline Road would be protected from the encroachment of sensitive land uses that had the potential to preclude or hinder the ability to access these resources.</p> <p>As clearly set out in Policy B1.8.12.3 and of PPS Policy 2.5.2.5, it is the obligation of the residential developer to provide for any additional mitigation necessary for any future sensitive land uses proposed within the Aggregate Resource Protection Area and not the other way around. Accordingly, Walker’s submission, including all technical reports, has taken into consideration and incorporates mitigation for all existing sensitive land use receptors and/or lands zoned which permit sensitive land uses as-of-right, for which it is obligated to do and in accordance with technical guidelines established by the Province.</p>
	<p><b>Upper’s Quarry, Niagara: Level 1 and Level 2 Natural Environment Technical Report and Environmental Impact Study, Stantec (August 2023)</b></p>		
4.	<p>Regarding the area identified for offsite Woodland Compensation Area west of Thorold Townline Road, it is noted that these lands are within the City of Thorold Urban Area, designated ‘Employment – Light Industrial’ and ‘Employment – Prestige Industrial’ within the City of Thorold Official Plan, Neighbourhoods of Rolling Meadows Secondary Plan. Additionally, these lands are zoned as “Other Zones – Future Development”, within the City of Thorold Comprehensive Zoning By-law No. 60-2019. While it is understood that Walker Industries Holdings Ltd. owns the lands where compensation is proposed, the proposed compensation area should not inhibit the future development of these lands as set out by the City of Thorold’s Official Plan and Zoning By-law 60-2019.</p>	MHBC / Stantec	See response to Comment No. 2 above.
	<p><b>Upper’s Quarry: Acoustic Assessment Report, RWDI (August 2023)</b></p>		
5.	<p>Appendix A - Zoning Information, includes the zoning categories within City of Thorold, from the City of Thorold Comprehensive Zoning By-law 2140 (97). As of March 16, 2021, City of Thorold Comprehensive Zoning By-law No. 60-2019 took effect, excluding Part 6: Residential Zones which are currently under appeal. Please update the review of Surrounding Noise sensitive Land Uses in Section 4.1, and Appendix A accordingly.</p>	RWDI	<p>As indicated in Comment No. 1, the Acoustic Assessment has been updated to reference the new Zoning By-law 60-2019 which came into effect on March 16, 2021. The changes that resulted in Comprehensive Zoning By-law 60-2019 coming into effect have been considered and there are no changes to the recommendations of this Assessment as a result of By-law 60-2019 coming into effect.</p>
6.	<p>It is agreed that the intent of the “Aggregate Impact Area” identified within The Neighbourhoods of Rolling Meadows Secondary Plan, and specifically Section B.1.8.12.3 of the Plan, as referenced within the report, is to ensure that future aggregate extraction will not be precluded or hindered and to achieve land use compatibility. It is also agreed that according to Section B.1.8.12.3 of the Plan, “mitigation measures shall be determined through appropriate studies prepared by the developer”. However, this section also states, “Once the proponent has prepared the appropriate studies and the necessary mitigation is incorporated into the proposed development, if necessary, the utilization of such mitigation measures does not relieve the new mineral aggregate operation</p>	MHBC / RWDI	See response to Comment No. 3 above.

	Comment	Responder	Applicant Response
	from providing appropriate setbacks and mitigation measures in order to achieve land use compatibility".		
	<b>Air Quality Assessment for the Proposed Upper's Quarry, RWDI (July 2023)</b>		
7.	It is noted that the lands within the City of Thorold (west of Thorold Townline Road), as shown within Figure 1 – Receptor Locations, are within the City of Thorold Urban Area, and include lands that are designated 'Employment – Light Industrial' "Residential" and 'Employment – Prestige Industrial' within the City of Thorold Official Plan Neighbourhoods of Rolling Meadows Secondary Plan, and zoned as "Other Zones – Future Development", within the City of Thorold Comprehensive Zoning By-law No. 60-2019.	RWDI	It is noted that the Air Quality Assessment does not reference any Zoning By-law relative to the City of Thorold (or City of Niagara Falls) in the Figures or text.
	<b>Blasting Impact Assessment – Upper's Quarry, Explotech (August 2023)</b>		
8.	The existing conditions section of this report characterize the lands as being largely agricultural. Please note that the lands are within the City of Thorold Urban Area, and include lands designated 'Employment – Light Industrial' and 'Employment – Prestige Industrial' within the City of Thorold Official Plan Neighbourhoods of Rolling Meadows Secondary Plan, and are zoned as "Other Zones – Future Development", within the City of Thorold Comprehensive Zoning By-law No. 60-2019.	Explotech	Understood. However, in addition to the response to Comment No. 3 above, the Blasting Impact Assessment is required to consider existing sensitive receptors and is not required to take into account vacant lands.
	<b>Traffic Impact Study – Upper's Quarry, TMIG (October 2021)</b>		
9.	Regarding the preferred haul route identified within TMIG's Traffic Impact Study (2021), it is noted that the preferred Haul Route (Haul Route #1), complies with the City of Thorold Neighbourhoods of Rolling Meadows Secondary Plan which states "the haul route shall be restricted from the future extraction operation entrance southerly to Highway 20".		Noted. No response required.
	<b>Visual Impact Study, MHBC (October 2021) &amp; Response to JART Comments Received, MHBC (February 2023)</b>		
10.	It is agreed that the intent of the "Aggregate Impact Area" identified within The Neighbourhoods of Rolling Meadows Secondary Plan, and specifically Section B.1.8.12.3 of the Plan, as referenced within the report, is to ensure that future aggregate extraction will not be precluded or hindered and to achieve land use compatibility. It is also agreed that according to Section B.1.8.12.3 of the Plan, "mitigation measures shall be determined through appropriate studies prepared by the developer". However, this section also states, "Once the proponent has prepared the appropriate studies and the necessary mitigation is incorporated into the proposed development, if necessary, the utilization of such mitigation measures does not relieve the new mineral aggregate operation from providing appropriate setbacks and mitigation measures in order to achieve land use compatibility".	MHBC	See response to Comment No. 3 above.

APPENDIX 16: MINISTRY OF THE ENVIRONMENT, CONSERVATION AND PARKS COMMENTS

UPPER'S QUARRY

DATE: April 2024

	Comment	Responder	Applicant Response
<b>Appendix 16: Ministry of the Environment, Conservation, and Parks Comments, The Ontario Ministry of the Environment, Conservation, and Parks (MECP)</b>			
	<p>The Ontario Ministry of the Environment, Conservation, and Parks (MECP) responded to the Region's notice of statutory public meeting with the following comment, which was also copied to the applicant at the time of submission.</p>		
1.	<p>The ministry's Species at Risk Branch (SAR) have reviewed the Environmental Impact Study posted Technical Documents - Documents   Home of the Proposed Upper's Quarry (uppersquarry.ca) dated August 28, 2023 signed by Stantec's Sean Geddes and Daniel Eusebi, and offer the following comments,</p> <p>In the Environmental Impact Study, Stantec argued that Little Brown Myotis were not using the woodland as a maternity roost because they had a small number of calls per detector night and a small number of calls at the time of emergence. They argued that Little Brown Myotis were only using the woodlot for foraging.</p> <p>I had a call with Dr. Christina Davy of Carleton University on October 18, 2023 and she explained the following: - Foraging is not an indication that a maternity roost is not present. If prey is available bats will forage within their maternity roost site.</p> <ul style="list-style-type: none"> <li>Any calls, even a small number, close to the time of emergence can indicate a maternity roost is present. It would be very difficult to prove otherwise.</li> <li>Little Brown Myotis roost switch frequently which makes it difficult to prove that they aren't roosting in a specific location.</li> <li>No snags or a few snags does not mean no roosting habitat. Bats will use live trees and smalls trees as roost sites.</li> </ul> <p>Based on this information I do not believe that the conclusions Stantec has made that the ESA will not be contravened for Little Brown Myotis are valid. There is not a lot of habitat available for these bats in the area and this site is close to a watercourse which could increase the value of the habitat.</p> <p>Please submit an Information Gathering Form to SAROntario@ontario.ca, and copy me on that email at <a href="mailto:Kelly.Tonellato@ontario.ca">Kelly.Tonellato@ontario.ca</a>.</p>	Stantec / MHBC	<p>Please see the enclosed revised EIS which states the following in response to this comment:</p> <p>"In summary the MECP application of protection for the habitat of endangered and threatened bat species, focuses on the maternity roost habitat and is considered the key habitat type. The detailed review of ARU recordings completed for data obtain over a two year period confirm that the behavioral activity of the bats is not consistent with bat maternity activity (time of recording, number of observation, frequency of recording). The collected and analyzed recordings are not indicative of a maternity roost scenario in the woodland. Foraging habitat is found throughout the region and is not at risk. As such, the woodland is not considered habitat of endangered and threatened species for bats and in consideration of the PPS, which states, development or site alteration is not permitted in habitat of endangered and threatened species, except in accordance with provincial (such as the MECP ESA) and federal requirements, the woodland is not considered habitat of Endangered or Threatened species as it relates to bats".</p> <p>"Species at risk that would require the need for review and approval under the Endangered Species Act (ESA) are associated with potential treed bat maternity habitat on site. The MECP has been consulted on the existing conditions and findings of acoustic surveys and provides guidance to submit all findings and results as noted in pre-consultation, in detail through the submission of an Information Gathering Form (IGF). MECP will assess the need and scope of permitting that may be required if any and identify the Conditions of approval that may be required to fulfill compliance with the ESA, exempt from an Authorizations subject to implementation of site-specific Conditions".</p>