The Corporation of the Town of Milton

Report To:	Council
From:	Jill Hogan, Commissioner, Development Services
Date:	March 25, 2024
Report No:	DS-018-24
Subject:	Update Report: Reid Road Reservoir Quarry – Aggregate Resources Act Licence Application and the Environmental Assessment Process (James Dick Construction Limited).
Recommendation:	**THAT Development Services Report DS-018-24 Update Report: Reid Road Reservoir Quarry – Aggregate Resources Act Licence Application and the Environmental Assessment Process (James Dick Construction Limited) BE RECEIVED for information.**

EXECUTIVE SUMMARY

The purpose of this report is to provide Council with an update on the Aggregate Resources Act licence application (ARA application) for the Reid Road Reservoir Quarry, submitted by James Dick Construction Limited (JDCL), and the Environmental Assessment currently being undertaken for the proposed quarry.

The Town of Milton, Halton Region and Conservation Halton remain as Objectors to the ARA application. In addition, it should be noted that the Premier of Ontario, the Honourable Doug Ford and former Milton Member of Provincial Parliament (MPP) Parm Gill (resigned January 2024) have also voiced their objection to the proposed quarry.

In July 2021, the Province released Ontario Regulation 539/21 (O.Reg 539/21) requiring JDCL to undertake a scoped Environmental Assessment for the proposed quarry. The Environmental Assessment is currently underway and Town staff has been participating on the Government Review Team (through the Joint Agency Review Team) as a commenting party. In the meantime, the processing of the ARA application is on hold until the Environmental Assessment is complete.

In coordination with staff from Halton Region and Conservation Halton, the Town has been participating on a Joint Agency Review Team for the ARA application review process. The Town of Milton has filed two Letters of Objection to the Ministry of Natural Resources and

EXECUTIVE SUMMARY

Forestry and the applicant (September 2018 and July 2019). Halton Region and Conservation Halton submitted separate Letters of Objection as well. These letters state that the application has failed to address matters listed in section 12(1) of the ARA and the application in its current state does not constitute good planning and is not in the public interest.

Staff recommends that the Town continue to participate on the Government Review Team (through the Joint Agency Review Team) for the Environmental Assessment process. Once the ARA application process is reinitiated, staff also recommends that the Town continue to participate on the Joint Agency Review Team on future submissions related to the ARA application.

REPORT

Background

ARA Application and the Town's Role

In August 2018, James Dick Construction Limited (JDCL) applied for a licence under the Aggregate Resources Act (ARA) to the Ministry of Natural Resources and Forestry (MNRF) to establish a new quarry at the western terminus of Reid Side Road in the Town of Milton. Figure 1 to this Report shows the location of the proposed Reid Road Reservoir Quarry (proposed quarry). The ARA application includes an area of approximately 29.4 hectares (73 acres) of land with an extraction area for sand, gravel and bedrock of approximately 25.7 hectares (63.5 acres). Aggregate recycling is also proposed on the subject lands. The maximum annual tonnage amounts to approximately 990,000 tonnes.

No corresponding Planning Act applications have been filed with Halton Region or the Town of Milton. As a result, the Town of Milton is only a commenting agency to the MNRF and Town Council is not the approval authority. Halton Region retained consultants in a variety of fields and have led the technical review of the ARA application through the Joint Agency Review Team (JART) framework, which includes staff from Halton Region, Conservation Halton and the Town of Milton. JART has completed a review of two submissions from JDCL on the ARA application.

In accordance with the ARA requirements, the Town of Milton issued its initial Letter of Objection to JDCL and the MNRF in September 2018. This letter outlined the Town's concerns with the ARA application as submitted by JDCL. On December 11, 2018, JDCL

Background

issued a response letter to the Town's Letter of Objection as required in the ARA. In April 2019, JDCL requested that all objectors either confirm in writing that their objection has been resolved through their individual discussions with JDCL or alternatively that they would like to maintain their objection as their concerns had not been addressed to their satisfaction. On May 15, 2019, the Town of Milton issued another Letter of Objection reconfirming to the MNRF and JDCL that the Town continued to object to the application and that the Town's issues with the ARA application had not been resolved. Halton Region and Conservation Halton also separately submitted objected to the ARA application, in accordance with the ARA requirements.

Environmental Assessment Background

On July 25, 2019, previous Member of Provincial Parliament for Milton, Parm Gill, formally requested that the Minister of the Environment, Conservation and Parks (MECP) undertake an Environmental Assessment (EA) of the proposed quarry. Both the Town of Milton and Halton Region Councils supported the request and directed staff to facilitate the EA, if granted by the MECP.

On January 29, 2021, the MECP posted a proposed Regulation on the Environmental Registry of Ontario (ERO) (#019-2876) for the proposed quarry to be subject to a project-specific EA under the Environmental Assessment Act. On March 11, 2021, Halton Region, the Town of Milton and Conservation Halton submitted a joint response to the ERO with recommendations on the scope and requirements for the proposed EA.

On July 30, 2021, the MECP released Ontario Regulation 539/21 (O.Reg 539/21) requiring JDCL to undertake a scoped EA for the proposed quarry. O.Reg 539/21 established the scope of additional studies, review and approvals to be facilitated by the MECP. The MECP invited the Town of Milton, Halton Region and Conservation Halton to participate on a Government Review Team to provide comments and input on technical information submitted by JDCL through the EA process. However, like all other EA processes, the ultimate approval of the EA resides with the MECP.

In response to O.Reg 539/21, the MNRF confirmed that the processing of the ARA application is on hold until the EA process is completed.

Government Review Team

As noted above, shortly after O.Reg 539/21 was released, the MECP contacted staff at Halton Region advising that the Ministry would be working with the proponent to identify a

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Government Review Team for the EA process. The MECP invited staff from Halton Region, the Town of Milton and Conservation Halton (members of JART) to participate on the Government Review Team.

The MECP's Code of Practice for Consultation defines the role of the Government Review Team and the responsibilities are as follows:

1. To provide information and guidance, within their mandated areas of responsibility, that the proponent should consider as part of the decision-making process (e.g. legislative requirements, policies, standards, studies and potential evaluation criteria);
2. To provide consistent advice throughout the course of the planning and decision-making process, or provide relevant reasons if their position changes;
3. To suggest modifications to the proposal and documentation that may address concerns;
4. To participate in the MECP review of submissions made for the proposed terms of reference and the EA;
5. To provide comments to the MECP within the specified or regulated timelines for the review of the proposed terms of reference and the EA documentation; and,
6. To identify and confirm environmental effects related to their mandate.

Environmental Assessment Scope and Process

The O.Reg 539/21 establishes the requirements and process for the scoped EA. In this regard, O.Reg 539/21 directs JCDL to undertake the following:

1. Community and Indigenous consultation;
2. Minimum of three (3) public information meetings;
3. Creation of a public project website;
4. Evaluation of alternative methods, including alternative design methods to underwater blasting and alternative haul routes;
5. Requirement for specific studies pertaining to groundwater, including door-to-door well survey program, water quality monitoring program and assessment of effect on groundwater from blasting below the water table as well as any other hydrogeological studies that may be identified by the Director of the Ministry's EA branch; and,
6. Evaluation of the advantages and disadvantages of the proposal, including an assessment of cumulative effects.

The above-noted requirements are to be carried out in the following stages:

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1. Notice of Commencement;
2. Development of criteria and indicators to evaluate effects of the proposal and alternative methods to carry out the proposal;
3. Creation of a work plan for the respective studies;
4. Preparation of the draft EA;
5. Notice of publication of the draft EA; and,
6. Submission of the EA for Ministry review.

Unless specified in O.Reg 539/21, the remaining provisions of the Environmental Assessment Act apply to EA for the proposed quarry including Ministry consultation on the EA, a published Ministry Review and ultimately a decision by the Minister, subject to the approval of the Lieutenant Governor in Council.

Discussion

Update and Status of the Environmental Assessment

On October 16, 2023, the Town of Milton received a Notice of Commencement of Environmental Assessment for the proposed quarry. In accordance with O.Reg 539/21, JDCL mailed the Notice of Commencement to every assessed landowner within 500 metres of the proposed quarry, every assessed landowner within the EA study area (established by the MECP), every assessed landowner along any haul route related to the project, the Director of the Ministry's Environmental Branch and Central Region office, indigenous communities identified by the Director of Ministry's Environmental Branch and any other person that may be interested in the project.

Figure 2 to this Report includes the study area for the Environmental Assessment.

In addition to the above, JDCL posted the Notice of Commencement on their required public project website. The Town of Milton also updated its webpage for the Reid Road Reservoir Quarry to include the Notice of Commencement of the EA for the proposed quarry.

On November 17, 2023, JDCL provided Notice of the first Public Information Meeting (PIM) to the Town of Milton, all landowners within the study area and also emailed those who signed up to be on the project mailing list. On November 22, 2023, JDCL published an advertisement of the PIM in the Milton Champion newspaper as well. The Notice indicated

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that the purpose of the first PIM is to seek feedback on the preliminary evaluation criteria and indicators to evaluate alternative methods of operation and alternative haul routes.

The preliminary evaluation criteria and indicators package noted that the EA has been designed to be able to use information developed as part of the ARA application in the assessment of alternative methods of operation and alternative haul routes. In this regard, the package takes into account technical work and assessments completed through the ARA application. The package further notes that the level of evaluation criteria and indicators for each discipline is based on anticipated potential for effects, the level of information available regarding the effect potential and the areas of concern to interested persons identified through previous consultation activities.

On December 6, 2023, JDCL hosted a virtual Public Information Meeting (virtual PIM). The purpose of the PIM was to introduce the proposed quarry, provide an overview of the EA process and seek feedback on the preliminary evaluation criteria and indicators package. A facilitator led the virtual PIM and indicated that over 100 attendees logged onto the virtual PIM. Staff from the Town of Milton were amongst the attendees at the virtual PIM. JDCL and its consultant team delivered a presentation with information on the proposed quarry and provided an overview of the background and process for the EA, an explanation of the study area, a description of future meetings, as well as an outline of the project website and contact information to provide input following the meeting.

There were many questions and concerns raised by attendees at the virtual PIM. The questions raised were with respect to the study area, consultation timing and format, details related to the operation of the proposed quarry and regarding the approval authority/process for the EA. Concerns were also raised with respect to groundwater and surface water, traffic and safety, blasting and vibration, noise and economic impacts. In closing, the consulting team referred attendees to their project website (Frequently Asked Questions webpage) to access additional information on the proposed quarry and EA process and highlighted the January 17, 2024 deadline to provide comments on the preliminary evaluation criteria and indicators.

In response to the above request for comments, JART circulated the preliminary evaluation criteria and indicators package to respective internal staff departments as well as to various consultants retained by Halton Region. JART identified a number of concerns with the proposed data sources to be used in the EA process. For a number of categories, JDCL had previously prepared and submitted updated and/or addendum reports as part of the ARA application that were not included as proposed data sources. In addition, the proposed data

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sources consist of mostly technical work that was completed in support of the ARA application and it was not clear to JART how those reports would be used to evaluate alternative methods of operation required for the EA. The study areas used in the initial reports was also smaller than the study area for the EA. In this regard, JART is seeking regarding the data that will be used to evaluate alternatives in areas that have not been previously studied.

Appendix 1 to this Report includes JARTs submission to the MECP and JDCL on the preliminary evaluation criteria and indicators package.

Next Steps

As a next step, JDCL will be preparing work plans for the respective studies required for the EA. Once complete, JDCL will circulate the materials in the same manner as described previously and provide notice of the next Public Information Meeting.

Town staff will continue to work with JART partners as part of the Government Review Team providing comments to the Ministry of Environment, Conservation and Parks on the Environmental Assessment process for the proposed Reid Road Reservoir Quarry.

Financial Impact

None arising from this Report.

Respectfully submitted,

Jill Hogan
Commissioner, Development Services

For questions, please contact:	Jessica Tijanic, MSc., MCIP, RPP, Senior Planner, Development Review	Phone: Ext. 2221

Attachments

Figure 1 – Location Map
Figure 2 – Study Area for the Environmental Assessment
Appendix 1 – JART Response to the MECP, dated January 17, 2024

Approved by CAO
Andrew M. Siltala
Chief Administrative Officer

Recognition of Traditional Lands

The Town of Milton resides on the Treaty Lands and Territory of the Mississaugas of the Credit First Nation. We also recognize the traditional territory of the Huron-Wendat and Haudenosaunee people. The Town of Milton shares this land and the responsibility for the water, food and resources. We stand as allies with the First Nations as stewards of these lands.

Figure 1 - Location Map

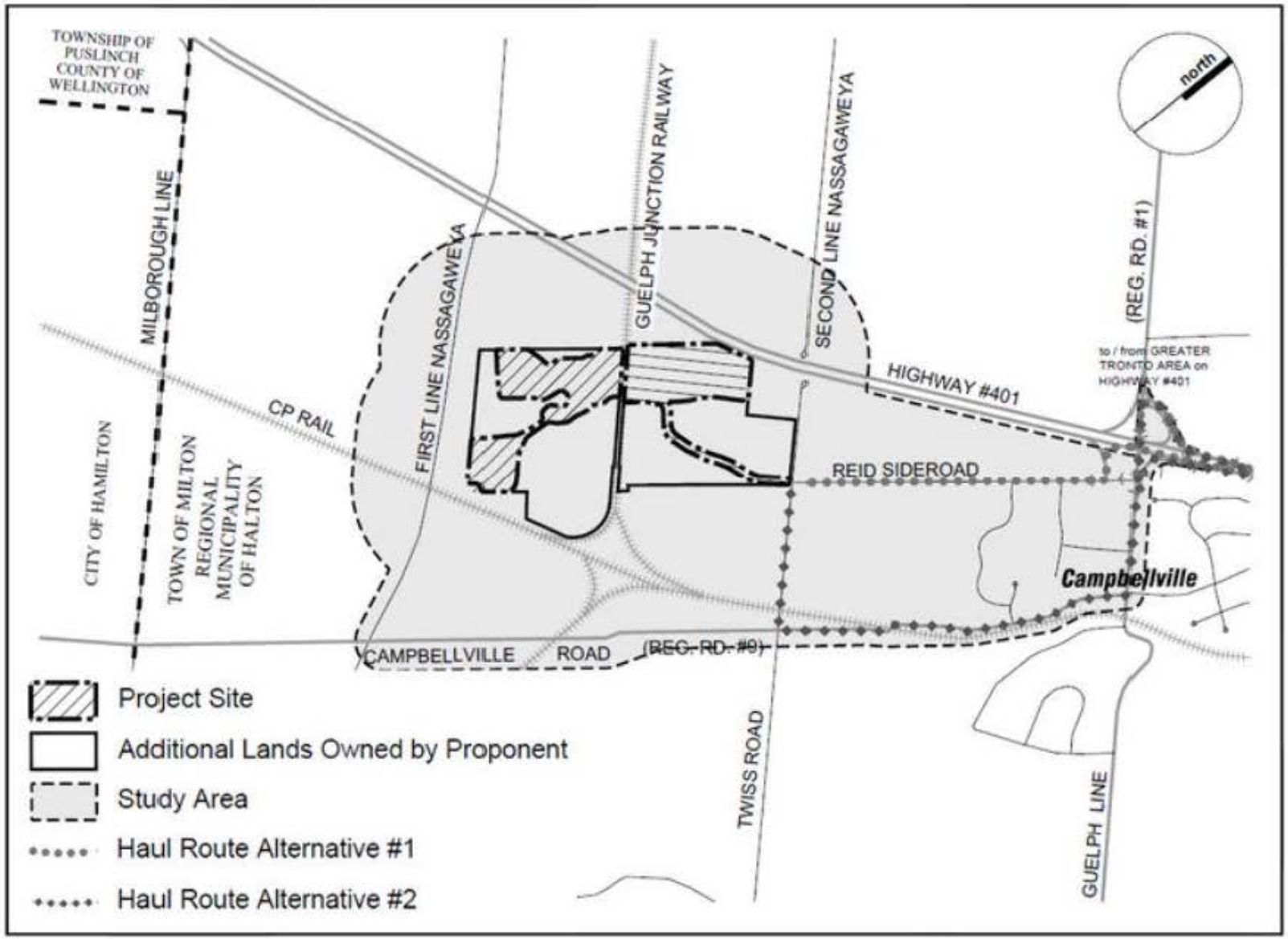

Figure 2 - Study Area for the Environmental Assessment

Figure 2: Environmental Assessment Study Area (source: JDCL)

The Reid Road Reservoir Quarry Joint Agency Review Team (JART) has reviewed the Environmental Assessment Preliminary Evaluation Criteria and Indicators submitted by James Dick Construction Ltd (JDCL) and provides the following comments:

General comments

1. For a number of categories, updated or addendum reports have been prepared and submitted by JDCL to the agencies, however these are not reflected in the proposed data sources columns. Suggest that the data source column be updated to identify all original reports, updates and/or addendums.
2. Further to the above, the proposed data sources consist mostly of technical work that's already been done in support of the proposal. These reports evaluate what is proposed, not alternative methods that were not proposed. It's therefore unclear how they can be used as data sources to evaluate alternative methods of operation, without additional technical work being done to look at the impacts of those alternatives.
3. Generally, it is also recognized that the Study Area for the EA is much larger than the study area that was included in the existing technical studies. Clarification is required regarding data that will be used to evaluate alternatives in areas that have not been studied and/or visited by the proponent.
4. It is stated in the overview section that 'Preliminary Evaluation Criteria and Indicators have been developed for the assessment of potential effects of the two (2) Alternative Design Methods and the two (2) Alternative Haul Road Options'. It would be useful to describe the two (2) Alternative Design Methods and two (2) Haul Road Options identified.
5. It is recommended that a criterion for long term, post-rehabilitation effects be added.

In addition to the above general comments, a column has been added below to Table 1 from the Preliminary Criteria and Indicators Package submitted by JDCL to provide criteria-specific JART comments and recommended updates to the Rationale, Indicators and Proposed Data Sources Columns in the table:

Table 1: Preliminary Evaluation Criteria and Indicators for the Proposed Reid Road Quarry Alternative Methods of Operation and Alternative Haul Route Options

Evaluation Criteria	Rationale	Indicator(s)	Proposed Data Sources	JART Comments (January 17, 2024)
Natural Environment				
Atmospheric Environment				
Air Quality O.Reg. 539/21 Section 7(2)(d)	Quarry operations and haul routes can emit contaminants that can degrade air quality and lead to increased levels of particulates (dust) in the air.	• Predicted airborne contaminant and emission levels at sensitive receptors resulting from quarry operations • Predicted airborne contaminant and emission levels at sensitive receptors resulting from truck traffic along the haul route	• Reid Road Reservoir Quarry Air Quality Assessment (RWDI, 2018) prepared for ARA application • MECP data (e.g., meteorological and terrain) • Applicable MECP guidelines, technical standards and accepted models	1. Update the Indicators to include the underlined: • Number of off-site identified receptors potentially affected (e.g., residential properties, public facilities, businesses/ farms, institutions <u>and vacant lots zoned for sensitive uses</u>. 2. Update Proposed Data Sources to include: • Addendum to Air Quality Assessment (RWDI, February 5, 2020) and Best Management Practices Plan for Dust (RWDI, September 22, 2020).

Table 1: Preliminary Evaluation Criteria and Indicators for the Proposed Reid Road Quarry Alternative Methods of Operation and Alternative Haul Route Options				
Evaluation Criteria	**Rationale**	**Indicator(s)**	**Proposed Data Sources**	**JART Comments (January 17, 2024)**
		• Frequency of potential airborne contaminant and emission effects at identified receptors • Number of off-site identified receptors potentially affected (e.g., residential properties, public facilities, businesses/farms, institutions)	(e.g., O. Reg. 419/05) • Related evaluation criteria identified in other disciplines (e.g., traffic data, off-site receptors)	
Noise	Quarry operations and haul routes can result in an increase in noise levels in the surrounding area *(e.g., truck traffic, blasting, heavy equipment on-site).*	• Predicted site-related noise levels (measured in dBA or dBAI), including blasting-related noise levels • Change in sound levels (dB) • Changes in noise levels at sensitive receptors within study area from quarry operations, including noise from blasting • Changes in noise levels at sensitive receptors within study area from truck traffic on haul routes • Frequency of potential noise	• Reid Road Reservoir Quarry Noise Impact Assessment (Aercoustics, 2017) prepared for ARA application • Manufacturer noise specifications • Applicable MECP guidelines, technical standards and models (e.g., NPC-300) • Related evaluation criteria identified in other disciplines (e.g., traffic data, off-site receptors)	3. Processing plants (crushing, screening and washing) are proposed on Phase 5 area of site plan. Noise associated with this component could result in an increase in noise levels in the area. Update the Rationale to identify processing plant as one of the example activities. 4. Update the Indicators to include the underlined: • Number of off-site identified receptors potentially affected (e.g., residential properties, public facilities, businesses/ farms, institutions <u>and vacant lots zoned for sensitive uses</u>. 5. Update the Indicators to include: • Noise from processing plants. 6. Update Proposed Data Sources to include: • Noise Impact Study Report Addendum 1 (Aercoustics Engineering Ltd., Feb 5 2020) and Noise Control Berm Flood Impact Analysis (Tatham Engineering Limited, May 4 2020).

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Evaluation Criteria	**Rationale**	**Indicator(s)**	**Proposed Data Sources**	**JART Comments (January 17, 2024)**
		effects at sensitive receptors • Number of off-site identified receptors potentially affected (e.g., residential properties, public facilities, businesses/farms, institutions)		
Blasting and Vibration O.Reg. 539/21 Section 7(2)©*	Blasting during quarry operations may result in potential effects, damage, and/or safety concerns within the surrounding area.	• Predicted amount of air overpressure, vibration, and flyrock (at site boundary and receptors) • Frequency of potential blasting effects at sensitive receptors • Number of off-site identified receptors potentially affected (e.g., residential properties, public facilities, businesses/farms, institutions)	• Blast Impact Analysis (Explotech, 2018) prepared for ARA application • Applicable MECP guidelines, technical standards, and models (e.g., NPC-119) • Related evaluation criteria identified in other disciplines (e.g., off-site receptors)	7. Update Indicators to include: • Natural Heritage receptors. 8. Update Proposed Data Sources to include: • Blast Impact Analysis Addendum (Explortech Engineering Ltd., Dec 3, 2019).
Geology and Hydrogeology				
Groundwater Quality O.Reg. 539/21 Section 7(2)(a, b, c, g)*	Quarry operations may result in changes to groundwater quality within groundwater resources (*e.g., blasting, quarrying within aquifer).*	• Changes to groundwater quality (e.g., bacteriological, chemical and physical changes to water chemistry down-gradient of site)	• Level 1 & 2 Hydrogeological Assessment Reid Road Reservoir Quarry (Harden Environment, 2018) prepared for ARA application	9. Update Indicators to include the underlined: • Changes to groundwater temperature <u>and turbidity</u> (e.g., temperature and turbidity of discharge into Kilbride Creek and Tributary). 10. Update Proposed Data Sources to include: • Hydrogeological Addendum Report (Harden Environmental Ltd., October 2020).

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Evaluation Criteria	**Rationale**	**Indicator(s)**	**Proposed Data Sources**	**JART Comments (January 17, 2024)**
		• Changes to groundwater temperature (e.g., temperature of discharge into Kilbride Creek and Tributary)	• Environmental and Water Management Operational Guide (JDCL, 2019) prepared as part of JART review process • Applicable MECP guidelines, technical standards, and models (e.g., Ontario Drinking Water Quality Standards)	11. Update Proposed Data Sources to include: • Environmental and Water Management Guide (JDCL, August 2020).
Groundwater Quantity and Flow	Quarry operations may disrupt natural groundwater flows and impact groundwater levels and well water users off-site *(e.g., dewatering/draw down)*	• Loss/reduction in groundwater resources • Changes to groundwater quantity and availability (e.g. existing water supply in private wells)	• Level 1 & 2 Hydrogeological Assessment Reid Road Reservoir Quarry (Harden Environmental, 2018) • MECP and Conservation Halton data (e.g., water well records, Provincial Groundwater Monitoring Network) • Applicable MECP guidelines, technical standards and accepted models	12. Update Rationale to include the underlined: • Quarry operations may disrupt natural groundwater flows and impact groundwater levels and well water users off-site <u>as well as natural heritage features and functions dependent on groundwater</u> (e.g., dewatering/drawdown). 13. Update Indicators to include: • Potential disruption to local groundwater seepages and associated aquatic habitat and wetlands. (see surface water quantity below). 14. Update Proposed Data Sources to include: • Hydrogeological Addendum Report (Harden Environmental Ltd., October 2020). 15. Update Proposed Data Sources to include: • Environmental and Water Management Guide (JDCL, August 2020).

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Evaluation Criteria	**Rationale**	**Indicator(s)**	**Proposed Data Sources**	**JART Comments (January 17, 2024)**
Hydrology				
Surface Water Quality	Quarry operations may result in changes to surface water quality within adjacent surface water resources *(e.g., surface water run-off draining to surface water receptors, sediment deposition, erosion of exposed surficial soils).*	• Reduction in surface water quality (e.g. turbidity within wetlands, Kilbride Creek and Tributary) • Increase in surface water temperature	• Level 1 & 2 Hydrogeological Assessment Reid Road Reservoir Quarry (Harden Environmental, 2018) prepared for ARA application • MECP and Conservation Halton data (e.g., Surface water quality-monitoring data, Provincial Water Quality Monitoring Network) • Applicable MECP guidelines, technical standards and accepted models (e.g., Provincial Water Quality Objectives)	16. Update Indicators to include: • Potential of contamination of surface runoff from on-site quarry activities. 17. Update Proposed Data Sources to include: • Hydrogeological Addendum Report (Harden Environmental Ltd., October 2020). 18. Update Proposed Data Sources to include: • Environmental and Water Management Guide (JDCL, August 2020).
Surface Water Quantity and Flow	Quarry operations may disrupt natural surface water drainage patterns, run-off, and peak flows *(e.g., dewatering discharge, effect on baseflow to surface water, etc).*	• Change in runoff volumes and peak flows • Changes to drainage areas and drainage patterns on-site and off-site (e.g., stream crossings along haul routes). • Predicted occurrence and degree of off-site	• Level 1 & 2 Hydrogeological Assessment Reid Road Reservoir Quarry (Harden Environmental, 2018) prepared for ARA application • MECP and Conservation Halton data (e.g., flow information,	19. Update Indicators to include the underlined: • Changes to drainage areas and drainage patterns on-site and off-site <u>including seeps, springs, and wetlands contributing to aquatic habitat- see Aquatic Ecosystems below.</u> (e.g., stream crossings along haul routes). 20. Update Indicators to include the underlined: • Predicted occurrence and degree of off-site effects to surface water flows <u>including seeps, springs, and wetlands contributing to aquatic habitat- see Aquatic Ecosystems below</u> (e.g., loss of groundwater discharge to surface water features).

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Evaluation Criteria	**Rationale**	**Indicator(s)**	**Proposed Data Sources**	**JART Comments (January 17, 2024)**
		effects to surface water flows (e.g., loss of groundwater discharge to surface water features).	hydrologic modelling) • Applicable MECP/MNRF/ECCC guidelines, technical standards and accepted models (e.g., hydrology design standards) • Related evaluation criteria identified in other disciplines (e.g., meteorological data, climate change modelling)	21. Update Proposed Data Sources to include: • Hydrogeological Addendum Report (Harden Environmental Ltd., October 2020). 22. Update Proposed Data Sources to include: • Environmental and Water Management Guide (JDCL, August 2020).
Ecological Environment				
Aquatic Ecosystems	Quarry operations and haul routes may disturb the functioning of natural aquatic habitats and species, including rare, threatened, or endangered species	• Habitat removal/change (e.g., amphibian breeding ponds, sediment release, fish habitat) • Loss/change of ecological functions (e.g., drawdown in wetlands during extraction) • Risk of species mortality (e.g., underwater blasting) • Potential effects on fish habitat resulting from dewatering, blasting, or changes in streamflow	• Proposed Reid Road Reservoir Quarry Level II Natural Environment Report Technical Report (GWS & Gray Owl Environmental, 2018) prepared for ARA application • Environmental and Water Management Operation Guide (JDCL, 2019) prepared as part of JART review process • MECP, MNRF, and Conservation Halton data (e.g., species	23. Table 1 content is not consistent across the Evaluation Criteria. For some Evaluation Criteria the Rationale includes potential effects on other Evaluation Criteria and for other Evaluation Criteria it does not. Where effects on other Evaluation Criteria are mentioned they are not comprehensive. For example, for Groundwater Quality the Rationale is that quarry operations may result in changes to groundwater quality. For Groundwater Quantity and Flow the Rationale is that "Quarry operations may disrupt natural groundwater flows and impact groundwater levels and *well water users off site*". In the latter, a potential socio-economic receptor is identified but the potential ecological receptors are not. 24. Table 1 content is not consistent across the Evaluation Criteria. For some Evaluation Criteria the Rationale includes potential effects on other Evaluation Criteria and for other Evaluation Criteria it does not. Where effects on other Evaluation Criteria are mentioned they are not comprehensive. For example, for Groundwater Quality the Rationale is that quarry operations may result in changes

Table 1: Preliminary Evaluation Criteria and Indicators for the Proposed Reid Road Quarry Alternative Methods of Operation and Alternative Haul Route Options				
Evaluation Criteria	**Rationale**	**Indicator(s)**	**Proposed Data Sources**	**JART Comments (January 17, 2024)**
			records, wetland mapping) • Applicable MECP/ MNRF guidelines, technical standards and accepted models (e.g., Natural Heritage Reference Manual)	to groundwater quality. For Groundwater Quantity and Flow the Rationale is that "Quarry operations may disrupt natural groundwater flows and impact groundwater levels and well water users off site". In the latter, a potential socio-economic receptor is identified but the potential ecological receptors are not. 25. Update Indicators to include: • Changes to species composition of aquatic communities (e.g., the fish community in Kilbride Creek and Tributary). 26. Kilbride Creek and Tributary should be identified as the locations where increases in surface water temperature is a concern. 27. Risk of species mortality, which is listed as an Indicator for Aquatic Ecosystems is an inaccurate term. Individual organisms die but species do not. Perhaps this could be changed to "death of aquatic organisms" or "death of fish" to more accurately reflect the concern. 28. Update Proposed Data Sources to include: • Level II Natural Environment Technical Report Addendum (GWS Ecological & Forestry Services and Gray Own Environmental, October 2020).
Terrestrial Ecosystems	Quarry operations and haul routes may disturb the functioning of natural terrestrial habitat and species, including rare, threatened, or endangered species.	• Habitat removal/change (e.g., areas of forest/grassland habitat removed for the quarry or adjacent to haul routes) • Loss/change of ecological functions	• Proposed Reid Road Reservoir Quarry Level II Natural Environment Report Technical Report (GWS & Gray Owl Environmental, 2018) prepared for ARA application	29. As identified as a general concern, this column should identify the specific criteria to be considered, for example, Species at Risk, Wetlands, Woodlands, Significant Wildlife Habitat, etc. The use of the word "disturb" to describe potential impacts as part of the Rationale, minimizes the significance of potential impacts since its use suggests that potential negative impacts are of a temporary nature, whereas the

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Evaluation Criteria	**Rationale**	**Indicator(s)**	**Proposed Data Sources**	**JART Comments (January 17, 2024)**
		(e.g., SWH in wetlands adjacent to haul routes) • Risk of species mortality (e.g., road strikes along haul routes) • Nuisance effects on terrestrial species (e.g., dust, fly rock, etc.)	• MECP, MNRF and Conservation Halton data (e.g., species records, natural heritage mapping) • Applicable MECP/MNRF guidelines, technical standards and accepted models (e.g., Natural Heritage Reference Manual)	direct loss or potential functional loss may be permanent and should be more specifically acknowledged. We also believe the Special Concern species and Significant Wildlife habitat (SWH) should be specifically acknowledged in the Rationale. Update Rationale to include the underlined additions/ replacements: • Quarry operations and haul routes may permanently impact the functioning of natural terrestrial habitats and species, including rare, Special Concern, Threatened, or Endangered species, as well as Significant Wildlife Habitat. 30. Indicators for each criteria should provide specificity regarding what will be measured to evaluate the associated criteria; it is recognized that in some cases measurable indicators have been proposed, but they are general and not aligned with a specific criterion. 31. Update Indicators to include the underlined: • Loss/change of ecological functions (e.g., SWH in wetlands adjacent to haul routes). This loss/change may include occur as a result of direct and indirect impacts, as well as cumulative effects. 32. Update Indicators to replace “nuisance” with the underlined: • Operational effects on terrestrial species (e.g., dust, fly rock, etc.). 33. Note for the Proposed Data Sources: • It’s recommended that Wildlife surveys that are more than five years old be repeated. 34. Comments on the Proposed Data Sources:

Table 1: Preliminary Evaluation Criteria and Indicators for the Proposed Reid Road Quarry Alternative Methods of Operation and Alternative Haul Route Options				
Evaluation Criteria	**Rationale**	**Indicator(s)**	**Proposed Data Sources**	**JART Comments (January 17, 2024)**
				• Wildlife surveys to bolster/re-confirm the Significant Wildlife Habitat (SWH) Assessment could be conducted for the following reasons: ○ Bat Maternity Colonies – Based on the leaf off survey that was conducted in treed habitats within the proposed extraction area, only 7 trees were deemed to have some potential as maternity habitat. However, it isn't clear whether it exceeded the number of trees/ha for Candidate SWH. Review and possibly rerun. ○ Turtle Wintering Areas – Given the speculative nature of the assessment, additional field surveys could be conducted to support their opinion. ○ Reptile Hibernaculum – Given that the number of snakes documented was very close to triggering SWH status, and the fact that snakes can be very difficult to document, it would be helpful to conduct additional survey work. ○ Turtle Nesting Areas – Given how difficult it can be to document turtle nesting activity, the documented presence of qualifying species in large enough numbers, and the low numbers required to trigger SWH, additional surveys could be run. ○ Woodland Area-Sensitive Bird Breeding Habitat – Additional surveys could be run in 2024 to reconfirm SWH status. ○ Marsh Breeding Bird Habitat – According to the SWHCS, a single nesting Green Heron qualifies as SWH. According to text on page 60 in the NETR, "a single pair of Green Herons nested in the white cedar-dominated swamp south of the internal road on the east side." Given the documented presence of

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				nesting Green Heron, additional surveys could be run to help confirm their presence. Green Heron nests can be difficult to find amongst leafed-out tree branches. ○ Terrestrial Crayfish – Targeted surveys to look for terrestrial crayfish were never undertaken, therefore surveys should be conducted.
Socio-Economic Environment				
Social Environment **O.Reg 539/21 Section 7(2)(f)***				
Local Community	Quarry operations and haul routes may adversely affect residents and businesses in the local community	• Number of residents and residences (e.g., receptors) • Number and type of local businesses • Changes to use and enjoyment of property (e.g., nuisance effects) • Changes to level of satisfaction with living/working in the community	• Census and municipal data • Municipal tax information/sources of municipal revenues • JDCL economic data (e.g., municipal fee contributions, employment, procurement)	No JART comments on this criterion.
Economic Environment				
Community Economics	Quarry operation could potentially have economic effects on and/or provide economic benefits to the local community	• Changes to employment levels (direct and/or indirect) • Changes to municipal finances • Changes to local business activities • Changes to type/value of procurement from	• Census and municipal data • Municipal tax information/sources of municipal revenues • JDCL economic data (e.g., municipal fee contributions, employment, procurement)	No JART comments on this criterion.

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		and provision to the local community • Changes to tourism		
Cultural Environment				
Archaeological Resources	Archaeological resources within Study Area can be damaged or destroyed by construction and operation of the quarry. Activities related to construction and operation of the quarry may cause negative effects on archaeological sites or areas with archaeological potential.	• Presence and significance of archaeological resources within the quarry footprint	• Stage 1 Archaeological Assessment (NYAS, 2017) prepared for ARA application • Clearance of Archaeological potential in compliance with the Ministry of Heritage, Sport, Tourism, and Culture Industries requirements (Dec. 18, 2018) • Ontario Archaeological Sites Database (OASD) • MTCS Standards and Guidelines for Consultant Archaeologists	No JART comments on this criterion.
Cultural Heritage Resources	Activities related to construction and operation of the quarry may result in direct or indirect effects on identified built heritage resources and cultural heritage landscapes.	• Direct or indirect impacts on known or potential cultural heritage resources (known/potential built heritage resources and cultural heritage landscapes_	• Stage 1 Archaeological Assessment (NYAS, 2017) prepared for ARA application • Clearance of Archaeological potential in compliance with Ministry of Heritage, Sport, Tourism and Culture Industries	No JART comments on this criterion.

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			requirements (Dec. 18, 2018) • Municipal, Provincial, and Federal Heritage Registers and Inventories • MTCS Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes	
Built Environment				
Traffic O. Reg. 539/21 Section 7(2)(e)*	Truck traffic along the haul route from quarry operations may adversely affect residents, businesses, institutions, and movement of form vehicles in the site vicinity	• Changes in daily truck traffic volume • Changes to road operations and level of service for intersections (e.g., capacity, delay, queues) • Effect of truck traffic on structural road components (e.g., pavement and road infrastructure) • Interactions and potential conflicts with emergency vehicles and impacts to emergency response times • Potential safety and crash risks to other road users	• Reid Road Reservoir Quarry Traffic Impact Study (Paradigm, 2018) prepared for ARA application • Milton Transportation Master Plan • Related evaluation criteria identified in other disciplines (e.g., off-site receptors)	35. Through the review of the ARA application, Town Traffic staff had a number of outstanding comments with respect to sight distances, pedestrian/cyclist conflicts and emergency response times. Under Indicators, add examples to potential safety: • Corner clearances, sight distances (including night time visibility and departure sight distances at the intersection of Reid Side Road and Twiss Road), and vehicle and pedestrian conflicts. 36. In addition to the above, Town Infrastructure staff had met with JDCL, MHBC and the Region to discuss the geotechnical investigation of Reid Road and the scheduled Reid Road resurfacing. The Town did proceed with rehabilitation of Reid Side Road in 2022. The relevant reports and drawings are identified below. Due to the delay of the process at the time (late 2020/early 2021), the Town did not further analyze Reid Side Road for potential impacts due to potential future quarry traffic. This is outstanding, and the most recent geotechnical reports and Town road drawings should be used as the baseline for any future analysis.

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				For the alternative haul route under consideration (i.e. Twiss Road), the Town requires a comprehensive geotechnical investigation and associated report be prepared to assess the suitability of the roads to accept quarry traffic (i.e. to satisfy the same criteria identified for Reid Side Road in May 2020 via JART comments provided to JDCL, which are as follows: 1. Prepare an updated, comprehensive geotechnical report and associated pavement design report, to address the following: a. Recommend a rehabilitation method for the road, using updated traffic volumes (to reflect current and future (a generalized traffic growth rate of 1.0 percent compounded per annum can be assumed for Twiss Road. This is consistent with the assumptions in the TIS), without the Quarry traffic, to reflect a 20 year design life (i.e. 20 years until next rehabilitation/overlay required); b. Recommend a rehabilitation method for the road, using updated traffic volumes AND the anticipated traffic and increase in truck volumes from the Quarry (these volumes to match those in the updated TIS); c. Pavement design report to include ESAL calculations to support the recommended pavement designs; d. If additional/increased pavement design is required due to the increased Quarry traffic, then a cost estimate of all work will need to be included (1. Cost to improve without Quarry traffic considered, 2. Cost to improve with quarry traffic considered), the difference in cost between these 2 methods will be

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				paid to the Town by the applicant, to use towards the rehabilitation of this road (which will occur in the Town's capital rehabilitation program, currently TBD, subject to budget and council approval) – this will account for Quarry associated traffic); e. All costs associated with this geotechnical and pavement design report will be borne by the applicant; and f. The Town reserves the right to peer review this report, and the costs associated with peer review will be recovered from the applicant. 2. Geotechnical Site Investigation for Twiss Road to include, but not be limited to, the following: a. Borehole layout; b. Clearance and protection of underground utilities; c. Boreholes in mid driving lanes (alternating, every 100m) to a depth of 1.5m, with gradations performed on samples; d. Boreholes in shoulder (alternating, every 300m) to a depth of 1.0m, with gradations performed on samples; e. During drilling, soil and groundwater conditions will be recorded and soil samples collected; f. Backfill all boreholes and resurface with cold patch; g. Ensure safety of public and staff involved in site investigation; h. Protect utilities and property from damage; i. Restore the site to as near original conditions as practical; j. Avoid having equipment/vehicles/staff on shoulders when any seasonal maintenance

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				operations are anticipated (i.e. plowing, grading etc.); k. All signage and traffic control to be in accordance with OTM Book 7; and l. Prepare Pavement Design Report/Geotechnical Investigation Report that is to include the following: i. Pavement rehabilitation recommendations in accordance with the MTO's "Pavement Design and Rehabilitation Manual" and applicable Town design standards; and ii. Identification of soil type and pavement conditions in areas of investigation. If the applicant is of the opinion that they don't need to perform field work, and can rely on the information already available (i.e., previous studies), they will need to justify this in writing and submit this opinion along with that a comprehensive pavement design report, which addresses all items listed in #1 a-f above. Once a report is submitted, the Town may opt to have this peer reviewed and will look to the applicant to recover any costs associated with this. 37. Update Proposed Data Sources to include: • Reid Road Reservoir Quarry Traffic Impact Study - Updated (Paradigm, 2020) and Road Safety Impact Study – Proposed Reid Road Reservoir Quarry Haul Route Report (Intus, June 2020). 38. Update Proposed Data Sources to include: • Expanded Asphalt Program 2022 – Reid Side Road from Twiss Road to Crawford Crescent – January 4,

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				2022, by Thurber Engineering Ltd;, and associated design drawings by CIMA+, IFT drawing set dated March 3, 2022; as built drawings to be provided in January 2024.. 39. Update Proposed Data Sources to include: • Add structural evaluation of any existing culverts on Reid Side Road, and Twiss Road (i.e. the alternate haul route being considered/evaluated).
Current and Planned Land Use	Quarry operations may not be fully compatible with certain current and/or planned land uses in the Study Area. Quarries can potentially have a negative impact on sensitive land uses in the vicinity.	• Current land use • Planned land use • Type(s) and proximity of off-site recreational resources within 1 km • Type(s) and proximity of off-site sensitive land uses • Type(s) and proximity of agricultural land use/operations (e.g., organic, cash crop, livestock)	• Reid Road Reservoir Quarry Summary Statement Report (MHBC, 2018) prepared for ARA application • Official Plans and Zoning By-laws • Agency mapping (e.g., Canada Land Inventory, OMAFRA Agricultural Information Atlas, etc.)	40. Update Proposed Data Sources to include: • The Greenbelt Plan and other applicable provincial policy documents.

* Denotes required studies identified in O. Reg 539/21 Section 7(2)