

January 15, 2025

**RE: Update on Highland Line Pit and Responses to Public Comments
Thomas Cavanagh Construction Limited
Aggregate Resources Act Application #626599
Part of Lot 5, Concession 10 (Dalhousie), Township of Lanark Highlands, County of
Lanark
OUR FILE 0851E**

Further to your letter received in the Spring of 2023 regarding the above noted licence application under the Aggregate Resources Act (ARA), we offer the following update on the application including changes being made to the application and responses to public comments.

1. Introduction

Cavanagh applied to the Ministry of Natural Resources (MNR) under the ARA for a Class A licence to operate a below water pit on a property in the Township of Lanark Highlands (Highland Line Pit). The following is a summary of the proposed application as submitted to MNR in December 2022.

The proposed Highland Line Pit was proposed to cover a licence area of approximately 50.6 hectares (125 acres), with an extraction area of approximately 35.1 hectares (86.7 acres). The proposed maximum annual tonnage to be extracted was 1,000,000 tonnes through a 24-hour operation with limitations on equipment operating between the hours of 7 pm to 7 am.

In conjunction with the licence application, Cavanagh also submitted applications to amend the County of Lanark Official Plan, and Township of Lanark Highlands Official Plan and Zoning By-law. These applications are being reviewed through a separate but related process that is administered by the County and Township.

2. Notification and Consultation Process

The public consultation process under the ARA allows residents or organizations to submit comments on a proposed licence application. The applicant is then required to attempt to address any comments received through this process. If there are outstanding comments after the applicant's attempts to address them, the applicant must prepare an "Objection Form" and serve the form on any person who submitted a comment and has not withdrawn their comment. The following information must be included with the Objection Form:

1. A summary of outstanding comments;
2. A summary of the applicant's attempts to address the comments; and,

3. The applicant's recommendation to address the outstanding comments.

Any person or organization who wishes to object to an application for a licence must complete the Objection Form that they received from the applicant and send it within 20 days of receiving it to the applicant and MNR. Any comment for an application for a licence for which an Objection Form is not completed and sent to the applicant and MNR is considered withdrawn in accordance with the ARA.

This information package is not the Objection Form but rather an update on the application including an overview of the changes Cavanagh is making to the application in response to comments. The Objection Form will be provided to all remaining commenters on the ARA application with instructions on how to complete the Objection Form and the deadline in which responses must be received to be considered a formal objection to the application.

At the end of the process, the applicant is required to send the information and documentation to MNR who will then make a decision whether to issue, refuse or refer the licence application to the Ontario Land Tribunal (OLT) for a hearing. The Minister cannot issue a licence if the zoning by-law does not permit the proposed pit.

The following summarizes the consultation activities under the ARA for the Highland Line Pit application to date. This does not include consultation activities undertaken by the Township and County for the municipal planning applications.

- The Public Notice of Application was provided through newspaper notice, signage at the site and mailings to nearby landowners. The application was circulated to the required government review agencies. This was completed in March 2023.
- A Public Information Session was held at the Lanark & District Civitan Hall on April 27, 2023.
- The last day in which comments had to be provided in response to the Public Notice of Application was June 5, 2023.
- The following agencies have been involved in reviewing the proposed pit application:
 - County of Lanark
 - Township of Lanark Highlands
 - Mississippi Valley Conservation Authority
 - Ministry of Natural Resources
 - Ministry of Environment, Conservation and Parks (Groundwater, Surface Water and Species at Risk Branches)
 - Fisheries and Oceans Canada (DFO)
 - Hydro One
- An extensive review of the application is being undertaken by these review agencies including expert peer reviewers.
- Consultation with Indigenous communities as directed by MNR is ongoing.

- A project website was set up by Cavanagh which includes a project summary, technical studies and summaries, and information from the public information session (<http://cavanagharaapprovals.com/highlandLinePit/index.html>).

3. Summary of Revisions made to the Application in Response to Public Concerns

In response to comments received on the application, Cavanagh has made the following changes to the Highland Line Pit application:

1. Reduce the proposed maximum annual tonnage limit from 1,000,000 tonnes to 500,000 tonnes.
2. Reduce the proposed licensed area of the pit from 50.6 hectares to 37.6 hectares. In conjunction with this change, the proposed extraction area is proposed to be reduced from 35.1 hectares to 28.4 hectares.
3. Reduce the maximum hourly number of trucks leaving the pit from 30 to 15 per hour.
4. Remove aggregate recycling activities from the proposed pit operation including asphalt and concrete recycling and storage.
5. Reduction of the proposed hours of operation for the pit to remove overnight operations (from 24 hours to 6 am to 9 pm) with restrictions on operating equipment before 7am and after 7pm.

Additional changes have been made to the application in response to comments which are outlined on the ARA Site Plan. The changes are identified in redline.

4. Updated Information and Responses to Public Comments

As a result of the comments received, additional investigation and technical work have been undertaken including the following:

- Public Responses Table;
- Revised ARA Site Plans;
- Investigation Program to Assess Potential Presence of Uranium and Thorium in Bedrock, Overburden Materials, Surface Water and the Shallow Groundwater System at Highland Line Property, Township of Lanark Highlands, Ontario (WSP, October 29, 2024);
- Planning Addendum Report (MHBC, January 2025);
- Stage 1 and 2 Archaeological Assessment: Highland Line Pit (DRAFT, Matrix Heritage Inc., November 5, 2024);
- Response to JP2G Consultants Inc. Peer Review Comments on Proposed Highland Line Pit Natural Environment Report, Township of Lanark Highlands, Ontario (#626599) (Cambium, January 10, 2025);
- Response to Comments from Mark Heaton, Ecologist on behalf of Friends of Lanark Highlands – Proposed Highland Line Pit Natural Environment Report, Township of Lanark Highlands, Ontario (Aggregate Resources Act Application #626599) (Cambium, January 10, 2025)

- Aggregate Pit, Barber’s Lake, Long Sault Creek, Township of Lanark Highlands – Implementation of Measures to Avoid and Mitigate the Potential for Prohibited Effects to Fish and Fish Habitat (Fisheries and Oceans Canada, March 12, 2024); and
- Well Interference Complaints Response Program.

These materials are available for review on Cavanagh’s website:
<http://cavanagharaapprovals.com/highlandLinePit/index.html>

The attached summary table provides responses to the main areas of public concern raised through the ARA consultation process. The table also outlines where changes have been made to the application.

5. Closing

Thank you for submitting comments on the Highland Line Pit application and for your interest in this application. If you have any questions, please let us know.

Yours truly,

MHBC



Yara Elmahdy, BES



Neal DeRuyter, BES, MCIP, RPP

cc. *Phil White, Cavanagh
WSP
Cambium
Freefield Ltd.
Castleglenn Consultants
Matrix Heritage Inc.
MHBC*

Encl.

**Thomas Cavanagh Construction Limited Proposed Highland Line Pit
Aggregate Resources Act Application #626599**

Table 1: Summary of Responses to Community Comments and Application Changes

January 2025

	General Commentary	Response to Community Comments	Changes Made to Application (if applicable)
1.	Was an accumulative report done on the effects of all 5 aggregate pits operating within this 3.5km area?	<p>An accumulative report is not a required study for this proposed pit application.</p> <p>However, during the preparation of the required reports and studies, the investigations were conducted to determine the impacts of the proposal on the local environment and community taking into account nearby land uses to establish appropriate mitigation measures for compliance with applicable provincial standards.</p>	N/A
2.	Why were residents not given more time to review the application and why weren't more residents notified?	Public consultation was undertaken in accordance with the regulations of the Aggregate Resources Act. In addition, Cavanagh has established a project website to provide information on the application so it is widely available.	N/A
3.	How does the pit benefit Lanark County if the aggregate is being hauled away elsewhere for use?	As required by the Provincial Planning Statement (2024), as much of the mineral aggregate resources as is realistically possible shall be made available as close to markets as possible. The subject lands contain identified high-quality sand and gravel resources. Aggregate extracted from the pit will serve local and regional markets for construction and infrastructure projects. An aggregate levy will be paid to the Township and County for every tonne of aggregate extracted	N/A

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		from the site. Based on 2025 levy rates, this amounts to 14.7 cents / tonne and 3.7 cents / tonne to the Township and County, respectively.	
4.	Is 300m not becoming the more accepted modern standard for the setback from waterways for aggregate development?	<p>Provincial and municipal policies require that there be no negative impacts on significant natural features, and that sensitive surface water resources are protected, improved or restored. The applicable setback depends on the type of operation proposed and the potential impacts on these features. The technical studies have considered the proposed aggregate operation including depth of extraction, area, rehabilitation, etc. as it relates to potential impacts on nearby environmental features. Recommendations of setbacks from the identified natural features are included on the ARA Site Plans.</p> <p>In response to comments received, Cavanagh has reduced the proposed size of the pit in terms of the licensed area and extraction area. This results in a decrease of the licensed area and extraction area of approximately 26% and 19%, respectively.</p>	The proposed licence and extraction limit of the pit have been reduced.
5.	It does not appear that the quality and quantity of the water in Barbers Lake has been given proper, if any, consideration?	Barbers Lake was considered and assessed in the Water Report and Natural Environment Report. In response to comments, the monitoring program has been expanded as it relates to potential impacts to Barbers Lake.	The proposed water monitoring program has been expanded to include water quality testing and surface water monitoring. This includes mitigation to address the potential for surface water outflow from the operational

	General Commentary	Response to Community Comments	Changes Made to Application (if applicable)
			pit pond or the rehabilitated pit lake towards Barbers Lake.
6.	Please explain how digging below the water table will not affect Barbers Lake's, flora & fauna?	Given that dewatering will not occur to access the sand and gravel below the water table and that predicted groundwater effects are localized, no impacts to surface water features and significant natural features are anticipated.	The extraction setback has been increased from surface water features including Long Sault Creek.
7.	Where is the water Cavanagh will use for washing and grinding going to come from and where is it going to go?	In order to allow washing, a Permit To Take Water (PTTW) must be obtained from Ministry of Environment, Conservation and Parks (MECP). Water used for washing aggregate will come from the site from groundwater. Water will remain on site as part of a closed-loop system.	N/A
8.	Can Cavanagh protect natural water temperature as the water they use from springs on the property naturally returns to draining into Barbers lake?	<p>The seeps and springs associated with the wetland adjacent to Barbers Lake will not be impacted as noted in the Natural Environment Report and Water Report. Extraction will be setback 30 m from this wetland.</p> <p>The proposed monitoring program for the pit will measure and evaluate the actual effects on water resources associated with pit development, and to allow a comparison between the actual effects measured during the monitoring program with those predicted as part of the impact assessment.</p>	The proposed water monitoring program has been expanded to include water quality testing including the following parameters: temperature, pH, conductivity, total suspended solids, total dissolved solids, alkalinity, turbidity and nutrients.
9.	How deep below the existing water table of Barber's Lake will the pit floor	The surface water elevation of Barbers Lake is approximately 182 masl. The proposed pit floor elevation is 176 masl. Through the on-site testing	N/A

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	be and why does the pit floor need to be below the existing water table?	program, it was determined that there are significant, high-quality sand and gravel resources located below the water table.	
10.	What are the plans for silt run-off before, during and after pit use?	<p>During construction and earth-moving operations (site preparation), sediment control measures will be put in place to prevent runoff of suspended solids from leaving the site.</p> <p>If a gradient exists such that discharge to waterbodies could occur during pit operational works, sediment and erosion control fencing will be implemented.</p>	N/A
11.	Will there be a guarantee in place to protect my property water and will Cavanagh be liable for continuous testing and damages?	Local water supply wells are protected in accordance with the Ontario Water Resources Act. A well interference complaint response program has been prepared that Cavanagh is required to implement. If it is determined that pit activities caused the well interference, Cavanagh is required to remedy the issue.	Well Interference Complaint Response Program has been developed.
12.	Would it be correct to expect that the proposed extraction in the new pit will, in fact, lower the water table?	The proposed pit will not be dewatered during operations, although extraction will occur below the water table. Since the surface of the created pond within the pit will be flat, there will be minor changes in the water table in the area adjacent to the sides of the proposed pit. In areas where the existing water table is above the estimated elevation of the pit pond, a lowering of the water table will be observed during extraction operations whereas in areas where the existing water table is below the estimated elevation of	N/A

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		the pit pond, an increase in the water table would be observed. Please refer to the Water Report for the full assessment.	
13.	How deep is the bedrock beneath Anderson Lane?	The local depth to bedrock indicated in water well records varies from 17 to 23 m below ground surface. It is also noted that bedrock also outcrops at surface on portions of the site. Any bedrock encountered on the site will remain in place.	N/A
14.	If there is not adequate flow what is the maximum level that could occur in lake 2?	The water level of the pit ponds is predicted to be 186 m asl.	N/A
15.	Is there risk of lake 2 becoming stagnant and having no outflow?	The pit pond in Extraction Area 2 will be a closed depression with no surface outlet. Water will continue to infiltrate through the ground and contribute a steadier base flow to nearby features (as opposed to surface runoff in existing conditions).	N/A
16.	Will the water table be polluted by gas releases?	In response to comments received regarding uranium, WSP assessed the potential presence and implications of uranium and thorium in the bedrock, overburden (soil), surface water and groundwater at the site. The investigation program included the sampling and analysis of bedrock, overburden (soil), surface water including from Barbers Lake and groundwater from the monitoring wells on the	N/A

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		<p>site. All samples were submitted to an accredited laboratory for analyses of uranium and thorium.</p> <p>The results found that there can be elevated uranium and thorium concentrations in the bedrock underlying the site, but these elevated concentrations are not present in the unconsolidated overburden deposits above the bedrock.</p> <p>There is no evidence to suggest that the presence of uranium and thorium in the underlying bedrock has adversely impacted groundwater or surface water quality at the site. The analytical results of the soil, groundwater and surface water samples did not exceed applicable guidelines. As operations at the proposed pit will not result in alteration of the bedrock (i.e., no bedrock extraction/crushing/drilling, etc.), it is not expected that groundwater or surface water quality will be adversely impacted as a result of pit operation and rehabilitation.</p> <p>Please refer to the WSP study on Uranium and Thorium.</p>	
17.	Will the site have an impact on boating, kayaking or canoeing?	The proposed pit will not have an impact on these recreational activities. There are no topographic features or terrain constraints which would orient the proposed pit toward Barbers Lake causing scenic or visual impacts. The existing wetland and natural features located between the lake and site provide sufficient separation of a minimum of	N/A

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		<p>approximately 100 m from the proposed extraction area and Barbers Lake. Furthermore, there will be no site alteration such as berms or earthworks within this setback area, and this area will remain naturalized.</p> <p>The separation distance from Long Sault Creek to the proposed pit has been increased from 200 m to approximately 300 m at its closest point.</p>	
18.	Would significant amounts of Uranium entering Barbers Lake make it directly hazardous to our health?	See response to Comment 16 and the WSP study on Uranium and Thorium.	N/A
19.	Will our risks of cancer be increased by drinking water and eating fish from and bathing and swimming in Barbers Lake and breathing the dust laden air around it?	<p>Provincial standards are in place to protect human health and safety. The technical studies have assessed the proposed pit relative to these provincial standards. The studies demonstrate that potential impacts can be minimized in accordance with provincial standards.</p> <p>In response to concerns regarding impacts on Barbers Lake, the water monitoring program has been substantially expanded.</p>	The proposed water monitoring program has been expanded to include water quality testing and surface water monitoring. This includes mitigation to address the potential for surface water outflow from the operational pit pond or the rehabilitated pit lake towards Barbers Lake.
20.	Will disturbances to the ground cause radon gas in nearby homes to increase?	See response to Comment 16 and the WSP study on Uranium and Thorium.	N/A
21.	Throughout the report the authors state that with "no dewatering" there will be no significant effect on groundwater, surface water, runoff,	Extracting sand and gravel resources below the water table does not require dewatering as an excavator would be used to "scoop" the sand and	N/A

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	and other water related factors. There doesn't appear to be a statement making the pit development as presented in the Study conditional on no dewatering even though the authors say it will be crucial in protecting the existing water table.	gravel from the water. This is the method of extraction outlined on the ARA Site Plan.	
22.	The authors state that groundwater and surface water levels should be monitored to compare the expected values to those found during and after pit operation. No details are given regarding who will do the monitoring or how it will be made mandatory.	The water monitoring program which has been substantially expanded is included as a condition on the ARA Site Plan meaning that it would be legally enforceable. Cavanagh will be required to undertake the water monitoring through the services of a Qualified Professional (QP).	The proposed water monitoring program has been expanded to include water quality testing and surface water monitoring. This includes mitigation to address the potential for surface water outflow from the operational pit pond or the rehabilitated pit lake towards Barbers Lake.
23.	"Water Balance" is a crucial part of the Hydrological Study, studying the relationships between the pit development and effects on ground and surface water in the Study Area. The surface water measurements were taken at 4 locations in the Study Area, but no data was recorded for three to six months in each location and data from other locations outside Lanark Highlands was substituted. How valid are the Study's conclusions when substituted data entries had to be used?	In response to this comment, it is proposed that a groundwater seep(s) in the area between the proposed extraction limit and Barbers Lake would be sampled and a surface water sample would be collected to define baseline conditions. Each surface water sample would be submitted for a general chemistry suite of analysis. Qualified technical reviewers including from Ministry of Natural Resources and Ministry of Environment, Conservation Parks are reviewing the study's conclusions and findings.	The proposed water monitoring program has been expanded to include water quality testing and surface water monitoring. This includes mitigation to address the potential for surface water outflow from the operational pit pond or the rehabilitated pit lake towards Barbers Lake.

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24.	How can it be guaranteed that fuel spills during operations will not contaminate the water?	Fuel and associated products will be stored in above ground tanks or containers in compliance with the Technical Standards and Safety Act, 2000, Liquid Fuels Regulation 217/01 and Liquid Fuels Handling Code, 2000. The pit will be required to operate in accordance with a Spills Contingency Plan.	N/A
25.	Could Cavanagh guarantee to supply us with potable water, if they damage the ground water levels and our well is no longer potable or accessible?	See response to Comment 11.	Well Interference Complaint Response Program has been developed.
26.	If materials such as used asphalt are to be processed and stored on site contaminants could move off site through ground or surface water.	In response to comments, Cavanagh has decided to remove aggregate recycling activities from the proposed pit operation.	Removed aggregate recycling activities from the proposed pit operation including asphalt processing and storage.
27.	Has a traffic impact assessment on these roads been conducted for the additional 200 double axle dump trucks daily?	Yes, a traffic impact study was produced in May 2022 and the report assumed a worst-case scenario of 30 two-way truck trips-per-hour in total from the 2 extraction areas (arriving at the site empty, and then leaving the site full).	Reduction of the maximum number of trucks leaving the pit from 30 to 15 per hour.
28.	Could a new traffic study be done during a more representative time frame, a 1-week sample during Maple Syrup season or summer cycle tours and weekend tourism visitors? The traffic impact study was done on Dec 1, 2021, Wednesday morning during	It should be noted that the traffic study recognized that the traffic count undertaken took place during the Winter season (December 2021) when Covid restrictions were still in effect, and pit operations along Highland Line were operating at a slow period. The traffic study provided significant adjustments to the through-traffic along Highland Line to account for the effect of	N/A

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	Covid lockdown, and is not an accurate depiction of traffic on these roads.	peak summer volumes, Covid and inactive pit operations in addition to adoption of a 2.5% annual background traffic growth rate.	
29.	What can Cavanagh do to reduce or eliminate highway size gravel trucks on scenic country roads during peak tourism times, especially weekends?	Public roads are open to use by the public which includes operations by pits subject to any heavy vehicle seasonal restrictions related to the permitted tonnage. Highland Line is already used by gravel trucks as there are other active pits along this road.	Reduction of the maximum number of trucks leaving the pit from 30 to 15 per hour.
30.	Could the speed of gravel trucks be reduced by half within the local roadways until they reach the main highways to reduce both noise and high collision and death risk?	Currently, the posted speed on Highland Line is 60kph. Municipalities have the authority to set roadway speeds at their discretion subject to Provincial legislation under the Highway Traffic Act. Trucks are required to comply with the speed limits of the roads.	N/A
31.	When conducting the travel route for the production vehicles, was there any consideration for school transportation routes?	Heavy vehicle traffic is subject to the same rules of the road as any other vehicle and as such must stop when school bus lights are flashing and maintain a safe distance behind the vehicles.	A notice sign will be installed at each entrance to the site advising truck drivers to be respectful of other road users including school buses.
32.	Are there any plans to implement traffic control devices such as roundabouts and or traffic light systems in order to control the natural flow of traffic?	To the best of our knowledge, roundabouts and/or traffic lights along Highland Line are not warranted but are subject to the municipality's desires and budgetary constraints/priorities.	A notice sign will be installed at each entrance to the site advising truck drivers to be respectful of other road users including school buses.

	General Commentary	Response to Community Comments	Changes Made to Application (if applicable)
33.	How many trucks a day will travel on the local roads, and will they be affected by the restrictions of half loads, considering the Township and County Road 12 are half load roads?	Cavanagh is aware of the seasonal load restrictions on Township roads and County Road 12. Cavanagh and all other aggregate operators in this area must abide by this seasonal restriction.	Reduction of the maximum number of trucks leaving the pit from 30 to 15 per hour.
34.	Where is all the material going and is there not a pit that is closer that could facilitate the demand the company is projecting?	The extracted aggregate will be used to produce concrete and asphalt sand, Granular A & B materials, and SSM (select subgrade materials) aggregate products. These materials will be made available to local and regional markets throughout the Township and County. Provincial and municipal policies require that aggregate resources be protected for long-term use.	N/A
35.	If any, how will the increase flow of traffic affect the emergency response systems currently in place?	Lanark County's (November 2022) Emergency Response Plan identifies the roles and responsibilities of each agency in the event of an emergency. The increased flow of traffic will not affect the County's Emergency Response Systems (ERS). The increase in truck traffic is negligible and will not require specific requirements from or changes to the County's ERS.	Reduction of the maximum number of trucks leaving the pit from 30 to 15 per hour.
36.	Are there plans to reconstruct the roads to ensure they can endure the additional stress of the trucks carrying product?	Cavanagh is not aware of Township plans to reconstruct Highland Line which is an existing local truck route. Based on recent aggregate production levels in Lanark Highlands, the Township has received over \$200,000 annually from aggregate levies.	Reduction of the maximum number of trucks leaving the pit from 30 to 15 per hour.

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		These levies can be used by the Township for road improvements and other capital projects.	
37.	How will the “constant” traffic effect wildlife, commuting, mental well being?	Highland Line is an existing local truck route used by other active, operating gravel pits. Changes have been made to reduce the size and production of the proposed pit.	Reduction of the maximum number of trucks leaving the pit from 30 to 15 per hour.
38.	Would the township and county make enough money from the taxes and other fees received from the proposed pit to be able to afford the significant upgrades and maintenance to the roads that would be required to keep them up to standards and safe?	All aggregate extracted from licences in Ontario is subject to an aggregate levy of 24.3 cents per tonne (based on 2025 rates). Based on estimated aggregate reserves from the pit, this would amount to approximately \$370,000 in levies payable to the Township and County. This does not account for the other aggregate licences in the Township and County.	Reduction of the maximum number of trucks leaving the pit from 30 to 15 per hour.
39.	Has the issue of tourist traffic, all-terrain vehicle users, snowmobiler’s and cyclists been considered?	<p>Recreational trail maps (including all-terrain vehicle, snowmobile, hiking, and cycling routes/trail maps) were reviewed. It is recognized that Wheelers Pancake House (‘Wheelers’) is a popular stop for tourists of multiple modes of transportation (snowmobiles, all-terrain vehicles, bicycles, cars, etc.).</p> <p>We note that there is a snowmobile trail crossing located west of the entrance to Wheelers on Highland Line. The proposed pit entrance is located east of Wheelers with the haul route travelling east to County Road 12. As such, the haul route does not intersect with the trail crossing or the entrance of Wheelers. Additionally, snowmobiling occurs during winter,</p>	A notice sign will be installed at each entrance to the site advising truck drivers to be respectful of other road users including school buses.

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		<p>with trails busiest on weekends and evenings which doesn't coincide with peak (summer) forecasted pit traffic.</p> <p>Aggregate trucks, as well as all other road users, must be aware of other users on public roadways. To underline this point, a site plan condition has been added. Overall, the additional pit traffic is not anticipated to result in any "issues" with other road users.</p>	
40.	What type of trucks would be hauling from the proposed pit?	Most likely 20 tonne tri-axle dump trucks some of which could have 4 axles.	N/A
41.	Traffic Impact study was done in early December, a time in which sight lines from the proposed pit entrances are not obstructed by leaves on trees, tall grasses, or snowbanks?	Section 5 of the traffic impact study deals specifically with access location and presents photographs and sight line distances associated with each of the proposed pit accesses. Please note that the municipality is responsible for assuring within its right of way maintenance of sight lines which could be obstructed by overgrown vegetation or snow banks. This is not a pit operator responsibility but rather a roadway maintenance responsibility affecting all users of the roadway.	N/A
42.	Has there been an assessment of species at risk populations and what is the plan to protect them?	An assessment of species at risk habitat including endangered and threatened species was undertaken as part of the Natural Environment Report (NER). An Information Gathering Form (IGF) was prepared relating to the tri-coloured bat and Blanding's turtle at the Site, and presented to the MECP. The IGF included a map illustrating the	Turtle exclusion fencing will be installed around the entirety of Extraction Area 1 and Extraction Area 2 prior to extraction in each area.

	General Commentary	Response to Community Comments	Changes Made to Application (if applicable)
		Blanding's turtle habitat at the Site, which was described in the text of the NER. The Ministry of the Environment, Conservation and Parks (MECP) confirmed that the project will not require approvals under the Endangered Species Act. This determination was based on additional mitigation measures being implemented, including fencing the entire site during development and operation of the pit.	
43.	In other gravel extraction sites, what has been the impact on the maple sugar forests surrounding the extraction sites?	There are existing gravel pits currently operating along Highland Line in proximity to the site. The technical studies demonstrate that impacts to adjacent lands are minimized in accordance with provincial standards.	N/A
44.	What plans have been implemented to deal with the uranium deposits that were discovered near Barbers Lake when the Government was looking for uranium?	See response to Comment 16 and the WSP study on Uranium and Thorium.	N/A
45.	What impact will the increased traffic and configuration of a pit have on families who wish to continue to hunt?	The proposed pit is located on private lands owned by Cavanagh. There are other existing gravel pits operating in the area of the site. There are no anticipated impacts on hunting activities as a result of the proposed pit operations.	N/A
46.	What impact will this pit have on the fish populations in the nearby lakes, rivers and creeks?	An assessment of fish habitat was undertaken as part of the Natural Environment Report and Water Report. In response to concerns regarding	The setback from Long Sault Creek has been increased such that the proposed

	General Commentary	Response to Community Comments	Changes Made to Application (if applicable)
		potential impacts on fish, Cavanagh submitted a Request for Project review to Fisheries and Oceans Canada (DFO) so that DFO could review and comment on the application. DFO confirmed that no authorization under the Fisheries Act is required for this project, and that the applicant's obligations under the Fisheries Act have been met.	extraction is now 300 m or more away from Long Sault Creek.
47.	How would a pit of this size, activity and noise level affect the wildlife in the area?	This was assessed through the technical studies undertaken with this application including the Natural Environment Report. The studies found that there will be no negative impacts on significant natural features and their ecological functions.	N/A
48.	Should the unevaluated wetlands on the property not be first evaluated to determine whether there would be a negative impact due to the pit?	Since the Natural Environment Report treated these wetlands as if they are provincially significant wetlands (PSW), evaluating them under the Ontario Wetland Evaluation System is unnecessary. The Ministry of Natural Resources (MNR) reviewed the NER and have not requested that the wetlands be evaluated.	N/A
49.	How vast will the pollution of local wetlands be?	An assessment of wetlands was undertaken as part of the Natural Environment Report and Water Report. Wetlands will be buffered from pit operations through a 30 m setback. In combination with the other recommendations and conditions included on the Site Plan, there will be no adverse impacts on nearby wetlands.	N/A

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50.	Should the ponds and springs not be left undisturbed as they are connected to the wetlands of the lake?	The springs and seeps are associated with the wetland adjacent to Barbers Lake which will be left undisturbed with a 30 m setback.	N/A
51.	Could the processing of aggregates, both screening and grinding be set up as far away from the edge of Barbers Lake as possible, to reduce the noise and vibration through the ground, that will carry far, both through the open water space and through the water itself?	<p>The setback from Barbers Lake is 100 m at its closest point. Further, there is a grade difference of at least four metres which would provide additional noise shielding between the extraction area and lake (pit equipment would operate on the pit floor).</p> <p>Noise mitigation measures have been incorporated for the processing plant to ensure noise impacts from the proposed pit operations are in compliance with applicable sound level limits. The predicted noise impacts include the effects of distance as well as other factors.</p> <p>The processing plant would not generate significant ground borne vibrations.</p>	N/A
52.	Was there any consideration taken into account the noise the trucks would make while traveling on the roads to and from the pit?	<p>There are no applicable guidelines related to noise from additional trucks associated with proposed aggregate operations on public roads i.e. off-site haul route.</p> <p>Irrespective of this, the primary off-site haul route will utilize an existing local haul route with trucks travelling east on Highland Line and connecting to County Road 12.</p>	Reduction of the maximum number of trucks leaving the pit from 30 to 15 per hour.

	General Commentary	Response to Community Comments	Changes Made to Application (if applicable)
53.	Has the sound of the trucks running, back up warning signals beeping 24/7 etc. been assessed or studied?	Truck movements on-site have been assessed for all proposed periods of operation. Back up warning signals i.e. back up beepers are not required to be assessed per provincial guidelines NPC-300.	Reduction of the proposed hours of operation for the pit to remove overnight operations (from 24 hours to 6 am to 9 pm).
54.	What is the background noise surrounding the property presently?	In certain instances, it is appropriate to assess the background noise level in the surrounding environment in order to justify higher sound level limits. For the proposed pit, a background noise assessment was not carried out, hence, the exclusion sound levels limits were applied at all receptors according to their location in a Class 3 Rural environment as defined by provincial guidelines NPC-300 which provides the most restrictive noise limits.	N/A
55.	The application states that engine brakes will not be permitted in the extraction area. Will there be a similar restriction on the use of engine brakes for trucks using the haul route on Highland Line?	When operating on-site, highway trucks are not permitted to use compression braking (Jake Brakes). Cavanagh is open to speaking with the Township regarding engine break restrictions on Highland Line but the decision would have to come from the Township.	Reduction of the maximum number of trucks leaving the pit from 30 to 15 per hour.
56.	Would the sound of engine brake be even more prominently heard by the residences along the Highland Line as trucks pass directly by?	An assessment of noise from truck movements on Highland Line is not required under NPC-300 and has not been carried out. Sound propagation	Reduction of the maximum number of trucks leaving the pit from 30 to 15 per hour.

	General Commentary	Response to Community Comments	Changes Made to Application (if applicable)
		depends on many factors including distance, atmospheric attenuation and ground attenuation.	
57.	What affect will the constant noise have on local residents and wildlife?	In regard to effects on local residents, the sound level limits have been established by MECP to ensure noise emissions are adequately controlled to prevent the potential for adverse effects. Cavanagh has made changes to the application to reduce the overall size and scale of the proposed pit operation.	Reductions in the scale of the operation in terms of tonnage limit (half), overall size and removal of overnight operations.
58.	Will seismic vibrations, caused by pit and road activity (trucks, loaders, crushers), release radon gases into basements and cellars?	Vibrations associated with stationary sources of noise i.e. trucks, loaders, crushers, etc. will be insignificant. See response to Comment 16 and the WSP study on Uranium and Thorium.	N/A
59.	Was the effect of sound transmission over waterbodies during worst case periods, i.e. calm nights when the waterbodies are highly reflective, taken into account? How does this impact the existing residences located on the opposite shore of Barbers Lake that haven't been included as worst-case receptors?	Reflectivity over waterbodies was not taken into consideration in the original Acoustic Assessment Report (AAR). To address this comment, noise impacts were analysed at the worst-case receptors included in the original AAR, as well as at two additional locations representing the existing residences located on the opposite shore of Barbers Lake, for all worst-case scenarios with Barbers Lake modelled as 100% reflective. The results of this analysis are presented in the enclosed Table 6(A) which shows the predicted	N/A

	General Commentary	Response to Community Comments	Changes Made to Application (if applicable)
		<p>sound levels with Barbers Lake modelled as 100% reflective. The results show that applicable sound level limits are met at all receptors. The results also confirm that the additional locations analysed are not considered worst case receptors with predicted noise impacts below the applicable sound level limits.</p> <p>When comparing the results presented in Table 6(A) with the results presented in Table 6 of the original AAR, the effects of Barbers Lake modelled as 100% reflective are insignificant with minor increases in the predicted sound level (1 dB or less) at Point of Receptor (POR) 3 and 4. This is due to the small path of sound propagation between the source and receiver locations that transmit over Barbers Lake.</p>	
60.	Crystalline Silica Dust is a known carcinogen causing silicosis, lung cancer, COPD, chronic coughs, autoimmune diseases. Will dust contain silica dust?	<p>Silica is a natural material found in sand and stone. Aggregate licences are subject to the following prescribed conditions regarding dust:</p> <ol style="list-style-type: none"> 1. Apply water or another provincially approved dust suppressant to internal haul roads and processing areas, as necessary to mitigate dust. 2. Equip any processing equipment that creates dust with dust suppressing or collection devices. 	The pit will be subject to a maximum disturbed area to limit how much of the pit can be disturbed at any one time. The overall size of the pit has been reduced.
61.	Would wind carry sand from the pit into the lake or nearby homes?	In addition to the conditions noted in response to Comment 60, Cavanagh would be required to	The pit will be subject to a maximum disturbed area to

	General Commentary	Response to Community Comments	Changes Made to Application (if applicable)
		mitigate the amount of dust generated at the site to minimize off-site impacts. This condition would be enforceable under the Aggregate Resources Act.	limit how much of the pit can be disturbed at any one time. The overall size of the pit has been reduced.
62.	Is there a chance that dust in the air we would be breathing would have increased levels of radioactive uranium?	See response to Comment 16 and the WSP study on Uranium and Thorium.	N/A
63.	With some properties bring very close to the proposed work area, would neighbors be subjected to erosion to their land due to their proximity?	Setbacks from adjacent properties are based on legislated requirements in the Aggregate Resources Act. The Aggregate Resources Act requires that all excavation faces shall be stabilized to prevent erosion into the setback areas. Neighbouring properties would not be subjected to erosion.	The total extraction area has been reduced by approximately 19% and setbacks have been increased in several areas of the pit.
64.	Even with the prescribed 3:1 slopes, is there not high potential for erosion from such deep extraction of sand?	The proposed slopes for the pit are in accordance with requirements in the Aggregate Resources Act which have been developed taking into account erosion and stability.	N/A
65.	If erosion is experienced at the pit edge that outlets to Barbers Lake, is there not a serious risk of flooding to Barbers Lake and beyond?	As assessed in the Water Report, operation of the proposed pit is not expected to contribute to flooding problems in the receiving drainage features, as there will be limited water discharge from the pit. However, additional mitigation is proposed to ensure flooding risks are appropriately minimized.	Additional mitigation to address the potential for surface water outflow from the operational pit pond or the rehabilitated pit lake towards Barbers Lake.

	General Commentary	Response to Community Comments	Changes Made to Application (if applicable)
66.	Are there any assurances or guarantees in place regarding the residents property values?	<p>The subject lands are identified as containing high quality aggregate resources with existing pits operating in the area.</p> <p>Decisions made under the Planning Act and Aggregate Resources Act are not to be based on opinions regarding the perceived impact of decisions on property values.</p>	N/A
67.	What are the plans once the pit is depleted?	<p>The extraction areas will be progressively rehabilitated as ponds with shallow littoral zones to create more diverse aquatic habitat. In the littoral zones, approximately 100 nodes of herbaceous and/or woody wetland species will be planted with a targeted density of 75% cover at establishment, and a target diversity of at least 10 species. Nodal plantings will also be completed within selected areas around the lake and will include edge, submergent and emergent species such as red-osier dogwood, slender willow and herbaceous plants.</p> <p>Please refer to the Rehabilitation Plan.</p>	Additional requirements for rehabilitation plantings and landform creation.
68.	Would it be possible for our council to look for successful examples of this type of remediation?	It is a requirement of the Aggregate Resources Act to rehabilitate land from which aggregate has been excavated. Cavanagh will be required to perform progressive rehabilitation and final rehabilitation on the site in accordance with the Site Plan. Aggregate sites must be rehabilitated in accordance with their Rehabilitation Plan in order for the Ministry of Natural Resources to surrender the licence.	N/A

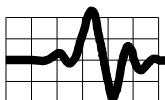
	General Commentary	Response to Community Comments	Changes Made to Application (if applicable)
		Cavanagh has successfully rehabilitated other aggregate sites in Ontario.	
69.	Will there be a limit on the area that can be excavated at any given time?	Cavanagh has agreed to impose a maximum disturbed area which will limit the area of the site that can be excavated at any given time.	The pit will be subject to a maximum disturbed area to limit how much of the pit can be disturbed at any one time. The overall size of the pit has been reduced.
70.	Will the pit be rehabilitated when all resources are exhausted or is there a plan for the stages at which areas will be excavated and milestones for rehabilitation that must occur before moving to the next stage?	The Aggregate Resources Act and Site Plan require that the proposed pit be rehabilitated progressively. Triggers have been included on the site plan at which point progressive rehabilitation must commence.	The pit will be subject to a maximum disturbed area to limit how much of the pit can be disturbed at any one time and includes triggers for requiring progressive rehabilitation.
71.	Why is the operation 24 hours a day?	Cavanagh originally applied for a 24-hour operation based on the results of the technical studies which demonstrated that the pit could achieve compliance with applicable standards including noise limits. In response to comments received on this matter, Cavanagh is proposing to reduce the hours of operation to 6 am to 9 pm.	Reduction of the proposed hours of operation for the pit to remove overnight operations (from 24 hours to 6 am to 9 pm).
72.	Could Cavanagh dim or switch off lights when the pit is not operating at night?	There is limited lighting required for an aggregate operation which typically takes place during daytime hours. Any lighting required for the pit will be minimal and adhere to dark sky principles.	Reduction of the proposed hours of operation for the pit to remove overnight operations (from 24 hours to 6 am to 9 pm).

	General Commentary	Response to Community Comments	Changes Made to Application (if applicable)
73.	Are there currently any 24 hr aggregate pits operating in Lanark Highlands?	The hours of operation for other aggregate sites in Lanark Highlands would be based on the respective Site Plan for each of these sites. This inquiry should be made with the MNR as Cavanagh does not have access to these Site Plans. In response to comments received on this matter, Cavanagh is proposing to reduce the hours of operation to 6 am to 9 pm.	Reduction of the proposed hours of operation for the pit to remove overnight operations (from 24 hours to 6 am to 9 pm).
74.	Could processing at the pit wait until after the Spring Maple syrup season, summer cottage country and autumn hunting season, which feeds many of our local families?	The requested times generally overlap with the construction season when demand for aggregate is highest. Processing activities at the proposed pit are planned to operate within provincial standards and guidelines as determined by the technical studies. Processing activities are not anticipated to impact tourism and recreational activities in the community.	N/A
75.	Could sound absorbing berms and barriers be aesthetic and landscaped, so as not to detract from the scenic aesthetic of Fall Colours and Artisan and Cycling tours that contribute to our economic tourism income?	The proposed berms will be landscaped. The berms will be seeded with native vegetation to ensure that adequate vegetation is established and maintained to control erosion. The berms will be sequentially constructed as pit operations progress through the site.	N/A
76.	Have the higher bluff type elevations with unique topographical features of the proposed pit been assessed for archaeological significance?	The archaeology assessments assessed the features located on the subject lands in accordance with the Standards and Guidelines for Consultant Archaeologists.	N/A
77.	Will there be health and stress issues because of the pit?	The proposed pit has been designed to ensure that potential impacts on the community are	N/A

	General Commentary	Response to Community Comments	Changes Made to Application (if applicable)
		minimized in accordance with provincial standards.	

Table 6(A): Supplementary Results incorporating Reflective Surface at Barbers Lake and Analysis at Additional Locations – Acoustic Assessment Summary Table, Worst Case, Daytime Period of Operation, 7 am to 7 pm (07:00 - 19:00) and Evening and Nighttime Period (19:00 – 07:00)

Point of Reception ID	Location	Scenario 1 Estimated Sound Level Daytime Period (Worst Case) (dBA)	Scenario 2 Estimated Sound Level Daytime Period (Worst Case) (dBA)	Scenario 3 Estimated Sound Level Daytime Period (Worst Case) (dBA)	Scenario 4 Estimated Sound Level Daytime Period (Worst Case) (dBA)	Scenario 5 Estimated Sound Level Daytime Period (Worst Case) (dBA)	Scenario 6 Estimated Sound Level Daytime Period (Worst Case) (dBA)	Scenario 7 Estimated Sound Level Daytime Period (Worst Case) (dBA)	Scenario 8 Estimated Sound Level Daytime Period (Worst Case) (dBA)	Performance Limit* Daytime Period (dBA)	Scenario 9 Estimated Sound Level Evening / Nighttime Period (Worst Case) (dBA)	Performance Limit* Evening / Nighttime Period (dBA)	Compliance with Performance Limit (Yes/No)
POR 1	POW	43	42	41	41	44	44	44	44	45	34	40	Yes
	OPR	42	41	39	39	43	43	43	43	45	34	40	Yes
POR 2	POW	41	41	41	40	41	41	42	41	45	31	40	Yes
	OPR	42	43	40	40	43	43	42	42	45	34	40	Yes
POR 3	POW	39	44	41	41	40	44	41	41	45	35	40	Yes
	OPR	36	42	40	40	36	41	40	40	45	32	40	Yes
POR 4	POW	37	43	40	41	38	42	40	40	45	34	40	Yes
	OPR	37	43	40	40	37	42	40	40	45	34	40	Yes
POR 5	POW	44	42	42	42	45	44	44	44	45	37	40	Yes
	OPR	42	41	40	40	42	42	42	42	45	35	40	Yes
POR 6	POW	33	31	40	40	33	33	40	40	45	26	40	Yes
	OPR	31	30	38	39	32	31	39	39	45	24	40	Yes
POR 7	POW	39	39	42	42	39	39	42	42	45	28	40	Yes
	OPR	32	32	38	38	33	33	38	38	45	24	40	Yes
POR 8	POW	41	42	44	44	41	41	44	44	45	33	40	Yes
	OPR	41	41	43	43	41	41	43	43	45	32	40	Yes
POR 9	POW	34	33	35	35	34	34	36	35	45	22	40	Yes
	OPR	33	33	35	35	33	33	35	35	45	22	40	Yes
POR 10	POW	26	17	1	0	27	26	25	25	45	13	40	Yes



Point of Reception ID	Location	Scenario 1 Estimated Sound Level Daytime Period (Worst Case) (dBA)	Scenario 2 Estimated Sound Level Daytime Period (Worst Case) (dBA)	Scenario 3 Estimated Sound Level Daytime Period (Worst Case) (dBA)	Scenario 4 Estimated Sound Level Daytime Period (Worst Case) (dBA)	Scenario 5 Estimated Sound Level Daytime Period (Worst Case) (dBA)	Scenario 6 Estimated Sound Level Daytime Period (Worst Case) (dBA)	Scenario 7 Estimated Sound Level Daytime Period (Worst Case) (dBA)	Scenario 8 Estimated Sound Level Daytime Period (Worst Case) (dBA)	Performance Limit* Daytime Period (dBA)	Scenario 9 Estimated Sound Level Evening / Nighttime Period (Worst Case) (dBA)	Performance Limit* Evening / Nighttime Period (dBA)	Compliance with Performance Limit (Yes/No)
	OPR	25	16	12	5	26	25	25	24	45	12	40	Yes
POR 11	POW	32	30	..**	..**	33	32	28	28	45	19	40	Yes
	OPR	31	31	..**	..**	32	32	27	27	45	18	40	Yes
POR 12	POW	42	41	43	42	43	43	44	44	45	31	40	Yes
	OPR	41	40	42	42	43	43	44	44	45	31	40	Yes
POR 13	POW	38	38	41	40	38	38	41	41	45	27	40	Yes
	OPR	37	37	40	40	37	37	40	40	45	26	40	Yes
Additional Location 1 (Existing residence at 387 Concession Road 9A Dalhousie)	POW	27	19	..**	..**	27	26	25	25	45	13	40	Yes
	OPR	26	25	..**	..**	26	26	25	25	45	12	40	Yes
Additional Location 2 (Existing residence at 431 Concession Road 9A Dalhousie)	POW	27	26	..**	..**	28	27	26	26	45	14	40	Yes
	OPR	26	25	..**	..**	27	26	25	25	45	13	40	Yes

*Performance limits are based on 1-hour equivalent sound levels, Leq.

**Noise impacts insignificant.

