

Aggregates Section

Section des agrégats

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August 22, 2023

Arnott Brothers Construction Ltd.  
36 Highway 511  
Perth ON  
K7H 3C9

**Subject:** *Aggregate Resources Act* New Application # 626609 and Application for a Major Site Plan Amendment to # 609261  
Arnott Brothers Construction Ltd. – McKinnon Pit  
Part Lot 6 and Part Lots 5 & 6, Concession 10 and 11, Geographic Township of Dalhousie  
Municipality of Lanark Highlands, County of Lanark

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Dear Mike Crain,

The Aggregates Section of the Ministry of Natural Resources and Forestry (MNRF) has reviewed your application for an Aggregate Licence for a pit below water (#626609) and the associated significant site plan amendment to the adjacent site (#609261) under the *Aggregate Resources Act* (ARA) application #626609. As per the ARA process, we are providing the following comments to be addressed:

### **Natural Environment**

The 'Natural Environment Technical Report,' prepared by Ecological Services., and dated January 26, 2022, has been reviewed in comparison to the Aggregate Resources of Ontario: Technical Reports and Information Standards and in consideration of relevant provincial legislation, policies and associated technical guidance material.

#### ***Significant Wetlands***

1. The wetlands adjacent to the study area are assumed to be significant by the applicant, primarily based on their size. There appear to be several wetland communities that are dependent, to some degree, on groundwater inflow. These include conifer swamps, *Carex stricta*-*Calamagrostis canadensis* marshes, and fens. Therefore, it is important to ensure that there are no negative impacts to the wetlands due to reductions in groundwater inflow. Please refer to the

hydrogeological section (comments # 16 - 20) for more detailed comments related to groundwater inflow.

### *Significant Habitat of Endangered and Threatened Species*

2. As per ARO: Technical Reports and Information Standards, Section 2.2 (e), endangered and threatened species and their habitat need to be assessed for negative impacts, including inventory, habitat assessments and any proposed preventative, mitigative or remedial measures must be identified. As endangered and threatened species and their habitat are regulated by the Ministry of Environment, Conservation and Parks (MECP), we defer to the MECP on whether the proposed development, including the proposed rehabilitation, is in accordance with the Endangered Species Act.

### *Significant Wildlife Habitat*

3. Amphibian Breeding (woodland): Since the wetlands are located within 120 m of the woodlands, they are likely used by a combination of woodland marsh breeding species. Amphibian breeding surveys detected three species of woodland breeding amphibians (spring peeper, wood frog and American toad). Salamander surveys consisted of overturning logs which is insufficient to determine absence. Only spring peeper had a call code of 3, however wood frog had a call code of 2. Based on one of the call codes being close and the possibility of salamander breeding the wetlands are assumed to be potentially significant for woodland amphibian breeding. Therefore, it is important to ensure that there are no negative impacts to the wetlands due to reductions in groundwater inflow. Please refer to the hydrogeological comments (# 16 - 20) for more detailed comments related to groundwater inflow.
4. Marsh Bird Breeding Habitat: The MNRF notes that the breeding bird list was missing from the NER. However, that notwithstanding, given the relative size of the ELC communities within the wetlands it may not have been possible to conclude they do not represent SWH, given that it is the entire are ELC ecosite that is assessed for significance, not only the portion within 120 meters. Only ecosites entirely located beyond 120 meters do not need to be assessed. It is recommended that wetland be assumed to be possible significant for marsh breeding birds. Therefore, it is important to ensure that there are no negative impacts to the wetlands due to reductions in groundwater inflow. Please refer to the hydrogeological comments (# 16 - 20) for more detailed comments related to groundwater inflow.

### *Fish Habitat*

5. Long Sault Creek is a coldwater stream with brook trout. Therefore, it is important to ensure that there are no negative impacts Long Sault Creek due to reductions in groundwater springs and/or changes in water temperature regime. Please

refer to the hydrogeological section (comments # 16 - 20) for more detailed comments related to groundwater.

## **Site Plans**

The Site Plans (pages 1 to 5 of 5), prepared by McIntosh Perry and dated May 10, 2022, have been reviewed in comparison to the Aggregate Resources of Ontario: Site Plan Standards and in consideration of relevant provincial legislation and policies and associated technical guidance material.

Where applicable, comments are organized by reference to the relevant site plan standard (SPS), as listed in the 'Aggregate Resources of Ontario: Site Plan Standards' (Aug.2020).

### *General*

6. The proposed licence # 626609 encompasses an existing Aggregate Resources Licence # 609261. The Ministry does not support the authorization of two ARA approvals in the same geographic location, as such the Ministry requests a commitment letter from the licensee that the current licence site being applied for under this application will be surrendered concurrently to a licence approval, should a licence for the proposed site be issued.

### *Operations*

7. SPS 34 – Please fix the extraction area to 31.6ha
8. SPS 37 – Please consult with Ministry of Environment, Conservation and Parks (MECP) on the requirements for importation of topsoil for blending/stockpiling or resale and confirm if any additional approvals are required.
9. SPS 40 – Please include an additional Phase 4 for the potentially new expansion area on the site plan.
10. SPA 44 – Editorial: The proposed site is in “Mississippi Valley S.P.A.” this should be indicated on the site plan and in the summary statement. Please correct this.

### *Progressive and Final Rehabilitation*

11. SPS 59 – Please add the final size of the lake in ha.
12. SPS 60 – The proposed notes on rehabilitation are unclear and would cause difficulty for enforcement. Please note that dewatered portions of the final lake are included in the maximum disturbed area as with all other disturbed areas on site. If the final size of the lake will be greater than the 10ha maximum disturbed area please clarify the methods that will be used to rehabilitate to lake while

maintaining the maximum disturbed area. If the final size of the lake less than 10ha, please clarify how the shorelines will be rehabilitated while maintaining the maximum disturbed area.

13. SPS 61 & 62 – There may be a mix up with these 2 site plan standards. Please clarify and fix. SPS 62 currently speaks about existing fencing and should be replaced with the proper site plan standard note.

14. SPS 62 – Please make reference to “Importation of Excess Soils for Rehabilitation” – Replace the wording of excess fill and include the following regarding excess soils:

1. Excess soil, as defined in Ontario Regulation 244/97 may be imported to this site to facilitate the following rehabilitation:
  - a. Creation of 3:1 final rehabilitation slopes
  - b. Top dressing to establish vegetation
2. Liquid soil, as defined in Ontario Regulation 406/19 under the Environmental Protection Act, is not authorized for importation to the site.
3. The quality of excess soil imported to the site for final placement must be equivalent to or more stringent than the applicable excess soil quality standards as determined in accordance with Ontario Regulation 244/97 as amended from time to time and must be consistent with the site conditions and the end use identified in the approved rehabilitation plan.
4. Where a qualified person is retained or required to be retained in accordance with Ontario Regulation 244/97, the quality, storage, and final placement of excess soils shall be done according to the advice of the qualified person.
5. Excess soil imported to facilitate rehabilitation as described on this site plan shall be undertaken in accordance with Ontario Regulation 244/97 under the Aggregate Resources Act, as amended from time to time.
6. The cumulative total amount of excess soil that may be imported to this site for rehabilitation purposes is **xx** m<sup>3</sup>. Please provide a calculation.

### *Cross Sections*

15. SPS 70 – Please include units in the site plan notes.

### **Hydrogeology**

The “Hydrogeological Assessment, Level 1 and Level 2 Water Reports and Maximum Predicted Water Table Report,” prepared by GRI Inc., and dated March 2023, has been reviewed in comparison to the Aggregate Resources of Ontario: Technical Reports and

Information Standards and in consideration of relevant provincial legislation and policies and associated technical guidance material.

16. Ensuring the protection of natural heritage features like wetlands, streams, and springs from impacts related to aggregate extraction activities is important. While the report indicates that there are two distinct aquifers represented by TW1 and TW Nos. 2 and 3, the evidence supporting this claim seems inconclusive. The provided information reveals considerable variability in both subsurface conditions and groundwater level elevations as measured in the monitoring wells. The groundwater levels from the three monitoring wells on the property may not comprehensively represent the aquifer(s) and/or the groundwater levels across the site. Consequently, it would be prudent to obtain groundwater level data from additional locations, especially in the site's western portion.
17. Please determine the seasonal relationship between the groundwater table and the water levels of nearby wetlands and cold streams. This correlation is vital for gauging potential impacts.
18. The recorded water level difference between the monitoring wells located upstream and downstream (considering the interpreted groundwater flow direction) is approximately 10 metres. It's anticipated that the extraction of aggregate material will result in a "water leveling" effect. It's crucial to assess how a potential 5-metre decrease in the water table on the western side, and a corresponding 5-metre increase on the eastern side, will influence the adjacent wetlands and streams. Data from additional monitoring wells might provide a more comprehensive understanding of the final elevation of the rehabilitated pond level across the site, aiding in the assessment of possible impacts.
19. Please provide evaluation of the potential thermal impacts on the cold streams using site-specific data.
20. Given the above comments 16 to 19, please update the monitoring program, triggers, and mitigation measures to account for the presented data, any new findings, and the functions of the natural heritage features.

### **Summary Statement**

The 'Aggregate Resources Act Summary Statement For A Pit Licence Application,' prepared by Milestone Aggregate Consulting Services Inc., and dated May 11, 2023 has been reviewed in comparison to the Aggregate Resources of Ontario: Technical Reports and Information Standards and in consideration of relevant provincial legislation and policies and associated technical guidance material.

21. Written confirmation from the Municipality of Lanark Highlands and County of Lanark for any necessary Official Plan and Zoning Amendments is required prior to issuance of a licence.

Additional comments may be provided pending the additional information provided to the above-mentioned points. Additionally, further reviews for conformity with the *Aggregate Resources Act*, 1990, site plan standards, policies and procedures will be undertaken as further edits to the site plan are made.

Following receipt of this letter, in order to expedite Aggregates Section reviews of any follow-up submissions please clearly highlight any and all changes to the site plan or reports. Additionally, in the submission related correspondence, please provide a statement for the record confirming that all changes have been highlighted.

We are open to having discussions with you to discuss the items outlined in this letter. If you have any questions, or require additional information, please contact Jeff Schosser at [jeff.schosser@ontario.ca](mailto:jeff.schosser@ontario.ca).

Sincerely,



Carla Riche

A/ Aggregate Resources Planner, Aggregates Section

- c. Tanya McLaurin, Resource Liaison Specialist, Kemptville Kingston District  
Adam Worth, District Manager, Kemptville Kingston District