



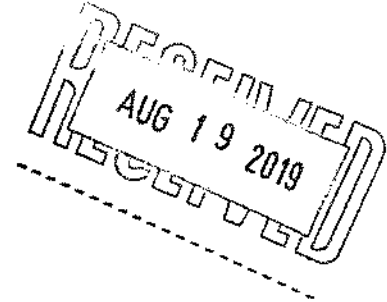
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August 16, 2019

Seana Richardson
 Aggregate Technical Specialist
 Ministry of Natural Resources and Forestry
 1 Stone Road West
 Guelph ON N1G 4Y2

Jeremy Vink
 Acting Manager of Planning
 Township of Woolwich
 24 Church Street West
 P.O. Box 158
 Elmira, On N3B 2Z6



Dear Ms. Richardson and Mr. Vink,

**Re: Application for a Category 3 (Above Water) Licence
 Official Plan Amendment and Zoning Bylaw
 Capital Paving Inc. – Shantz Station Pit
 Part Lots 81 and 82, German Company Tract, Township of Woolwich**

The Grand River Conservation Authority (GRCA) has conducted a review of the following information provided to this office in support of the above noted application: Planning Justification Report and Summary Statement (MHBC, May 2019), Level 1 and Level 2 Hydrogeological Investigation (MTE Consultants, May 2019), Natural Environment Report, Level 1 & 2 Assessment (RiverStone Environmental Solutions Inc., May 2019), and the associated Site Plan (MHBC, May 2019).

We recommend the following comments be satisfactorily addressed prior to approval:

Wetlands

1. As per our comments on the Terms of Reference for the Natural Environment Report, we require additional details regarding the proposed Haul Road between the extraction area and Shantz Station Road. The haul road is located in close proximity to the Breslau Wetland Complex, which is assumed to be provincially significant. While most of the haul route will utilize an existing driveway, the submissions indicate that it will be extended and widened. The GRCA requires further information on the proposed haul road expansion, including:
 - Confirmation that the haul road will not encroach into the wetland and/or the total area of proposed encroachment.
 - A figure(s) showing the proposed widening of the haul road in relation to the confirmed wetland boundary.

- Details on the location and design of equalization culverts proposed under the haul road.

We wish to note that as the haul route is included in the licensed boundary, its widening would not require a permit under the Conservation Authorities Act.

2. Further information is requested regarding expected hydrological impact to the Breslau Wetland Complex. The Micro Drainage Analysis – Appendix F indicates that the surface drainage area to the wetland will be reduced by 8.9% leading to a substantial reduction in surface water contribution. The report indicates that the reduction in surface water will be offset by an even larger increase in groundwater contribution. However, surface water versus groundwater inputs may influence the wetland hydrology and ecology differently depending on a number of factors, such as the water table elevation, infiltration rates within the wetland, seasonal fluxions in the water table, and sensitive of wetland flora and fauna to hydrologic changes. The consultant should provide a discussion on any expected changes to the wetland hydroperiod and anticipated impacts to the feature and function.
3. We request clarification for the lower evapotranspiration rate of 200mm/yr used in the post development catchment.
4. We request ET calculations for pre and post development for both catchments in the water balance analysis for review to confirm water balance.
5. It is recommended that the monitoring program outlined in the MTE Hydrogeological Investigation Level 1 and Level 2 Report be followed.
6. In order to effectively buffer the natural heritage features, the proposed reforestation/naturalization planting of the buffers should occur at the beginning of the site development. This will enhance the effectiveness of the buffers from the proposed activities as well as prevent/reduce the establishment of non-native species within the buffer area.
7. Further details of the proposed buffer enhancements should be provided in a Buffer Management Plan. Additional details on the proposed phasing of enhancement, planting densities, species selection, seed mix(s), and stock type should be provided. We further recommend that additional species be included in the buffer naturalization plan identified on Drawing #4 of 5 "Rehabilitation Plan".

Slope Hazards

8. A portion of the proposed extraction area is within the valley associated with Hopewell Creek, particularly in the north-east portion of the proposed extraction area, where the existing valley slope is approximate 5.5H:1V to 6H:1V. To mitigate potential impacts on

the slope stability, the areas of re-vegetation as shown on the cross-section drawing should be done of the beginning of the phases.

Review Fee

9. This application is considered to be an "Above Water Table Aggregate" application with features of interest within 120 metres of the licence limit. We wish to acknowledge receipt of our review fee in the amount of \$9,135.

We will provide detailed comments on the associated Official Plan Amendment and Zoning Bylaw amendment upon circulation by the Township.

We trust this information is of assistance. If you should have any further questions, please do not hesitate to contact Trevor Heywood, Resource Planner at 519-621-2763 ext. 2292 or theywood@grandriver.ca.

Yours truly,



Beth Brown
Supervisor of Resource Planning
Grand River Conservation Authority

c.c. Nancy Thompson, Township of Woolwich
Sylvia Rafalski-Misch and Jane Gurney, Region of Waterloo
David Marriott, MNRF

