GEMTEC
Consulting Engineers and Scientists

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File: 100436.004

Regional Group
1737 Woodward Drive
Ottawa, Ontario
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Attention: Stefanie Kaminski, Project Manager, Land Development

Re: MVCA Comment Responses - Environmental Impact Statement
Mill Run Extension, Almonte, Ontario

Please find enclosed, the GEMTEC Consulting Engineers and Scientists (GEMTEC) responses to the Mississippi Valley Conservation Authority comments provided in response to their review of the Environmental Impact Statement (EIS) prepared for the aforementioned property.

Sincerely,

Drew Paulusse, B.Sc.,
Senior Biologist
Manager, Environmental Services

Enclosures
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MVCA Comment	GEMTEC Response
Natural Hazards/Watercourse The EIS concludes that impacts to the hydraulic regime and hydro-period of the creek are not anticipated due to the net increase in stormwater storage provided by the proposed stormwater management expansion and the resulting maintenance of connectivity to existing drainage networks offsite to the west. However, there is no discussion on the potential impacts to base flows, particularly during low water levels. Further discussion could be provided as part of the Hydrologic Impact Study (requested below to assess hydrologic impacts to the off-site wetland).The sources of information cited in the EIS are generally appropriate for completion of the background review stage of an EIS.	It should be noted that during field investigations completed in support of the EIS, the Spring Creek Municipal Drain was noted as being dry or stagnant on multiple occasions. As outlined in Section 3 of the Hydrologic Impact Study, no significant changes to drainage patterns or downstream flow increases are expected. The loss of organic soils may reduce baseflow to the unevaluated wetland the Spring Creek Municipal Drain; however; the groundwater recharge function of the organic soils will be partially offset by shallow groundwater recharge in resulting from the expanded SWMF. Groundwater infiltrating into the shallow bedrock would be anticipated to discharge into the Spring Creek Municipal Drain down stream at lower elevations. The conclusions of the Hydraulic Impact Statement have been incorporated into the revised EIS.
MVCA O.Reg 153/06 The EIS concluded that if all mitigation and compensation measures are implemented, no significant residual impacts are anticipated from the proposed development. However, it is our opinion that the EIS has not adequately demonstrated that impacts have been sufficiently offset. Please provide details on how compensation was calculated, to account for the loss of wetland function.	With respect to potential impacts associated with the control of flooding, hydrologic function and erosion, the offsetting/compensation was determined through a multi-disciplinary review including biologist, water resource engineers, and hydrologists. The technical team reviewed the factual information derived from the various technical studies undertaken and supported by the results of the Hydraulic Impact Statement, concluded that the expansion of the SWMP to 1.7 ha, including natural design principals was sufficient to offset the potential impacts associated with the development.
Recommendation Further discussion on the ecological services and function of the wetland at the local and property scale.	Additional discussion has been provided on the ecological services and function within Section 4.1.1 in the revised EIS.
Recommendation Provide further details on the linkage between the on-site portion of the wetland and the larger offsite portion; including sizes, functional linkages and possible habitat and hydrologic impacts that altering the on-site wetland might have on the larger feature.	Summary text from the Hydraulic Impact Statement regarding linkages between on-site and off-site portions of the wetland have been included in Section 4.1.1 of the revised EIS. Additional text regarding impacts to off-site wetland habitat has been included in Section 6.1
Recommendation Coordinate with the HIS and Stormwater Report to clarify how the hydrological function of the adjacent channels, and wetlands will maintain pre-development conditions post development.	Summary text from the Hydraulic Impact Statement regarding hydrologic function of channels and wetlands, post-development, has been added to Section 6.1
Recommendation Clarify if and where LID techniques can be implemented on-site to help maintain the local hydrologic conditions. This discussion should also be coordinated with the HIS and SWMP.	LID techniques are not anticipated to be required to maintain baseflow conditions, in part due to the expansion of the unlined SWMP from 8,620 m2 to 11,190 m2, allowing ample opportunity for infiltration.

MVCA Comment	GEMTEC Response
Recommendation To help quantify the loss vs compensation amount, please provide a comparison of the surface area of the habitat lost vs provided as compensation.	See response provided below.
Recommendation Define the amounts and proposed locations for the various proposed types of on-site habitat enhancements. MVCA requests a figure and summary table be created to show how and where the loss of 3.64 ha of wetland habitat will be compensated.	A new section (7.1.1) has been added to the EIS outlining the various elements of the compensation strategy, as well as a conceptual compensation plan as Figure A.7 in Appendix A.
Recommendation Provide comment on cumulative impacts of altering the regulated wetland.	Minor text additions have been added to the Cumulative Impact section of the report (Section 6.5) to include the potential for decrease contributions to base flow during drought conditions as a result of the loss of organic soils associated with wetland removal.
Recommendation Integrate the recommendations and mitigation measures from the EIS with the results of the HIS, and the SWMP.	No response required.