



## Memorandum

DATE: February 24, 2022

TO: Fred Natolochny / Jason Wagler; GRCA

FROM: Ray Kirtz (Triton)  
Rob Stovel (SAI)

RE: Part Lot 17, 18 & 19  
Concession 8. Audrey  
Meadows Ltd. Township  
of Puslinch. GRCA  
response

FILE: A2680C

The following update is a summary of recent correspondence/discussions with the GRCA and considers the following items previously circulated;

- GRCA's original comments dated November 1, 2021
- Triton November 18, 2021 response memo
- Additional e-mail correspondence and discussions with GRCA during December 2021- January 2022.
- Environmental Impact Study Addendum prepared by Stovel and Associates (Stovel) and Lincoln Environmental Consultants Inc. (Lincoln) dated December 27, 2021
- Audrey Meadows Subdivision Nitrate Impact Analysis and Water Supply Assessment prepared by Groundwater Science Corp. dated December 20, 2021

Original GRCA comment numbering has been utilized below;

1. The wetlands were flagged by SAI and confirmed by GRCA staff and surveyed by Triton. The digital files were submitted to the GRCA by Triton. EIS report including Map 4 will be updated once details of the development have been established as part of the detailed design stage during Draft Plan Approval (DPA) of subdivision.
2. A 30 m setback has been illustrated on the revised design concept Figure 1. The 10 m dripline setback in portions of the site provides a setback of greater than 30 m to the wetlands. The 30 m setback is a recognized standard by the GRCA. As part of DPA process, the 30 m setback will be re-examined. The EIS Addendum report addresses comments regarding significant natural heritage features.
3. EIS will be updated once details of the SWM strategy have been established as part of the detailed design stage during Draft Plan Approval (DPA).

Preliminary SWM strategy includes a central SWM facility for quantity control and quality treatment of surface runoff. Details of the SWM design criteria will be confirmed with GRCA as part of the DPA process. The SWM block size and configuration will be confirmed as part of this DPA process also.

Water balance will be accomplished using lot level measures (i.e. soak-away pits) to ensure that recharge distribution is maintained and that only clean water is infiltrated. Central infiltration gallery is not part of the proposed SWM strategy. A detailed water balance calculation will be prepared as part of this DPA process.

We have considered a typical lot general arrangement and determined that there is sufficient space to accommodate soak-away pits on individual lots as required to achieve water balance. Further, the issue of potential groundwater mounding from soak-away pits impacting buildings or tile beds has been reviewed, based on typical lot layout there is sufficient room to provide adequate clearances. The placement of recharge features will be confirmed on a lot-by-lot basis once a final lot fabric has been established during Draft Plan process.

Revised lot fabric has removed lots from natural heritage zones and setbacks.

4. Our SWM modeling was completed generally to address peak flows, however, this modelling could also be utilized using frequent events (i.e. 25 mm) to assess runoff volumes to natural areas and assess potential impact of either an increase or decrease to these areas. However, as noted above, the mix of runoff and recharge to these areas can be adjusted at detailed design stage (i.e. Draft Plan) through the implementation of infiltration facilities and/or adjustment of grading to obtain the optimum runoff/recharge to suit the receivers.

As illustrated in the updated lot/development fabric, development will be outside the natural features and their buffers, therefore, the mitigation measures and treatments will also be accommodated outside the buffers and features. Further, the hydrogeological assessment indicates that proposed development will not significantly impact the local groundwater conditions on site, as such is not anticipated to impact off-site features (i.e. wetlands). Despite this, mitigation measures will be incorporated into the design to ensure water balance is achieved.

5. As noted above, based on the soils type and available room to accommodate recharge features in this type of development, we are confident that a satisfactory water balance can be achieved. A water balance calculation using the Thornthwaite-Mather method will be completed as part of the Draft Plan approval process.
6. Acknowledged. Detailed SWM design will be completed as part of the Draft Plan approval process. This design will be in accordance with the Mill Creek Subwatershed Study. Similarly, the water balance calculation considering monthly balance will be provided at detailed design during Draft Plan stage.
7. Acknowledged. Extended detention of the 25mm storm for erosion control will be included as part of the SWM criteria for the development. Detailed SWM design will be completed as part of Draft Plan stage.
8. Noted. Figure 1 and related data will be adjusted during detail design at Draft Plan stage. These changes are minor and will not change the viability of the development or SWM strategy. We can confirm that the adjustment to the pre-development drainage catchment can be accommodated in the post-development wetland runoff/recharge through adjustments to the grading/drainage and recharge design. Further, we do not anticipate any effect on the buffer requirements which have been increased to the requested 30 m.

Advisory comments have been reviewed/acknowledged and will be considered as part of the detailed design at Draft Plan stage.

In summary, the GRCA comments regarding this proposed development can and will be addressed as part of the detailed design stage. In our experience providing this detailed information at the Draft Plan approval stage would be appropriate as opposed to at the current Official Plan Amendment and Zoning By-law Amendment stage.

If you have any questions or wish to discuss any of this, please contact me.