

October 28, 2021

SENT BY E-MAIL (fdegasperis@condrain.com)

Frankie DeGasperis
ConDrain Ltd.
10 Cedar Avenue
Thornhill, Ontario L3T 3W1

Dear Mr. DeGasperis:

Thank you for meeting with TRCA to discuss the use of underground tanks for stormwater management (SWM). We appreciate the information provided and look forward to a future opportunity to monitor your system as part of TRCA's Sustainable Technologies Evaluation Program (www.sustainabletechnologies.ca). It appears that products listed within the StormCon Products solutions can be used for various applications, to suit site-specific needs and adhere to various requirements.

As discussed, underground tanks and chambers have been an effective alternative to above ground stormwater ponds in TRCA's jurisdiction, particularly in high density urban areas. When located below parks they have the potential to significantly reduce the surface footprint of the developed area, allowing for greater conservation of natural lands and more efficient and compact land use planning. Monitoring of an underground tank in Unionville, Markham by the Sustainable Technologies Evaluation Program (STEP) showed that an appropriately designed underground tank provided similar water quality performance to that of "Enhanced Level" stormwater ponds, but with much cooler effluent temperatures (<https://www.mdpi.com/2073-4441/8/5/211/htm>). In addition to the land conservation and water quality benefits, underground tanks designed and sited appropriately can also effectively mitigate flooding and satisfy TRCA's criteria for both water quality and quantity as outlined in TRCA's Stormwater Criteria Document (<https://trca.ca/conservation/stormwater-management/understand/>). In addition, underground tanks with an open bottom can provide for infiltration of runoff, achieving TRCA criteria related to water balance and erosion.

The application of stormwater tanks is also described within both the Stormwater Management Planning and Design Manual (MOE 2003) and TRCA's Low Impact Development Stormwater Management Planning and Design Guide (https://wiki.sustainabletechnologies.ca/wiki/Main_Page). Both documents emphasize the importance of the treatment train approach, which suggests that the treatment of runoff at the source, enroute, and at end-of-pipe should be incorporated into every SWM strategy.

Stormwater Management Innovation combined with sound engineering and environmental principles will continue to be encouraged and accepted by TRCA provided that the necessary technical analyses, documentation, and approval from the municipality or SWM infrastructure owner are completed, and that these proposed works also satisfy all other applicable requirements and criteria, including provision for long term operations, monitoring and maintenance. We look forward to continuing to work with StormCon to achieve our shared objectives in stormwater management.

Sincerely,



Sameer Dhalla, P.Eng.
Director, Development and Engineering Services