

May 16, 2024

Bill White
Acting Planner
Township of Southgate
185667 Grey County Rd 9
Dundalk ON N0C 1B0

Dear Bill White:

RE: 100 Eco Parkway – Southgate Renewables
Response to SP13-20 Second Submission Review Comments

Further to the Triton Engineering Memorandum of July 19, 2023, regarding the subject application, we provide below our responses to the comments made during your review.

Pre-Submission No. 1 Comments	
1 to 3 - Addressed	
4.	Storm Water Management ECA Permit is required for industrial developments. From the Township’s perspective, SWM is expected to meet post-to-pre quantity control and provide Enhanced (80% TSS removal) level quality treatment. Pending; ECA permit for SWMF is to be provided.
ECA application for the SWMF was submitted December 2023, Reference No. 4528-CYWQBN.	
5.	A complete functional servicing brief, including description of proposed water and sanitary usage/flow rates is to be provided. There may be a need to monitor usage and allocate reserve capacity, depending on actual demand/loading. This development will be allocated reserve capacity based on the Equivalent Residential Unit average daily flow rates. Confirm the expected sanitary loading (90.9m ³ /day) and water demand (90.9m ³ /day) are indicative of actual expected usage. Addressed, however refer to additional comments below regarding the FSR. Note: Municipal Servicing Assessment will be provided under separate cover.
Noted. A Water Allocation Agreement with the Township is needed to secure the daily water allocation of 175 m ³ /day for the facility. Southgate plans to explore supplementing this allocation in the future by integrating water from the Dundalk Wastewater Treatment Facility. Responses regarding the FSR will be provided under the other additional comments.	
6 to 7 - Addressed	
Submission No. 1 Comments General Design Comments	
1.1 to 1.11 - Addressed	
SWM Comments	
1.12	Regarding the rear Containment Area (Catchment 203): a. Provide additional details regarding the SWM strategy for this area. Confirm how the area will attenuate the storm water run-off to meet pre-development run-off rates. Also, if quality treatment is intended. Pending; confirm how water will be treated/removed from the area if water sampling concludes that the water quality requirements are not met. Is the typical runoff from this catchment considered clean (i.e., roof and landscaped are), and as such does not require SWM quality treatment?

<p>There will be very minimal vehicular activity in the secondary containment area. The valve will remain closed following CBMH11, any accumulated rainfall will be tested prior to the valve being opened for discharge. If the water does not meet the MECP requirements, then this water will either be directed back to the building for use as process water or will be pumped out via a truck and disposed of at a verified receiving location offsite.</p>	
<p>b. Provide additional details regarding the operation of the valved outlet. The report indicates that the water/runoff in the containment area will be sampled prior to being released to the creek. Does this mean that there isn't continual positive drainage to an outlet? Pending; confirm maximum ponding depth and how the valve would be accessed/operated in inundated scenario. Consider shifting valve to higher ground for ease of access.</p>	
<p>The discharge valve has been relocated beside the oil-grit unit for accessibility and ease of use. The maximum ponding elevation during the 100-year storm event, if the valve was to be closed for the entire duration, is 507.46 m. The valve is located at the top of the secondary containment berm. The maximum ponding elevation during the Regional event is 507.79 m.</p>	
<p>c. The spill containment function and related spill to the creek are to be subject to approval by the GRCA and MECP as applicable. Copies of these approvals are to be provide to the Township when available. Pending; to be provided when available.</p>	
<p>Noted. Submissions are being made to the GRCA and MECP and will be provided when available.</p>	
<p>1.13 to 1.31 - Addressed</p>	
<p>Utility and Lighting Comments</p>	
1.32	<p>Utility drawing is to be provided, indicating all utility providers (Hydro, Gas, Bell, etc.) and their services. Pending; utility drawing is to be provided.</p>
<p>All utilities are shown on drawing C3-1.</p>	
<p>1.33 to 1.37 - Addressed</p>	
<p>Submission No. 2 Comments General Design Comments</p>	
2.1	<p>250mm outflow pipe from containment area is to be modelled as a culvert or outflow pipe as opposed to an orifice. The outlet has been revised to be 150 mm diameter; however, it is unclear how/when this volume will be released, and when it is that the rate will be less than pre-flows. Pending response.</p>
<p>The outflow pipe from the secondary containment area is modelled as an outflow pipe in MIDUSS. The volume will be released after the water is tested by a qualified person. If the runoff volume meets Sewer Use Bylaw Standards, the valve will be opened, and the discharge will be conveyed through the proposed oil/grit unit before outletting. This is most likely going to be after storm events and the peak flow rate will not align with the peak flow rates from the other catchments. The hydrologic modelling assumed the valve being open during storm events to be conservative. As a result, all release rates from storm events in post-development conditions cited in the report are actually higher than would occur in practice due to the closed valve; however, the post-to-pre flow comparison utilized the higher (conservative) post-development flows. This is explained in the report.</p>	
2.2	<p>Once the Site Plan is approved, the shop drawing for sewage pump is to be provided prior to ordering/installation to confirm compatibility with the LPS. Pending response and acknowledgement.</p>
<p>Noted. WalterFedy will request shop drawings for review prior to equipment being ordered.</p>	
2.3	<p>Extraneous flows indicated in the Servicing Report can be removed, considering that none would be expected to occur in the LPS. Pending.</p>
<p>Extraneous flows have been removed from the sanitary demand section in the report.</p>	

2.4	Section 5.3 of the Servicing Report references a check valve being placed between the cistern and municipal water supply; however, it appears that these are not proposed to be connected in the drawing set and a check valve is not proposed. Confirm that the drawing set is accurate, and that no connection is proposed. Updated servicing plan indicates 25mm waterline from building connected to storage tanks, this line is to be equipped with a backflow preventer.
A note has been added to drawing C3-1 that states the 25 mm water line from the fire water reservoir is to be equipped with a backflow preventer inside the building.	
2.5 - Addressed.	
2.6	Filling the fire tanks from the hydrant will not be permitted as they are not metered. For the initial filling of the tanks the hydrant may be used but the TWSP is to be informed when it is to occur, and the owner will be charged for this volume of water. Pending response and acknowledgement.
Understood. The fire tanks will be refilled via the metered domestic line. It is proposed that the tanks be equipped with a float sensor for automatic refill.	
Submission No. 3 Comments General Design Comments	
3.1	Owner and/ or their Agents are to provide responses to all outstanding comments above to confirm how they have been addressed in the next submission.
Comment response letter provided.	
3.2	The FSR is to be expanded to discuss the water intake from the Township WWTF for process.
A Water Allocation Agreement with the Township is needed to secure the daily water allocation of 175 m ³ /day for the facility. Southgate plans to explore supplementing this allocation in the future by integrating water from the Dundalk Wastewater Treatment Facility.	
3.3	There have been significant revisions to the plans since the previous submission in the spring of 2021. Therefore, in addition to a response or acknowledgement of the above noted issues, a detailed summary of changes is also to be provided. Alternatively, this can be treated as a new submission and a detailed review completed.
A detailed summary of changes has been provided with this submission.	

Summary of Changes from 2021 Submission

- The site area increased from 2.02 ha to 4.04 ha.
- The Organics Receiving Building footprint increased from approximately 1,448 m² to 2,800 m².
- A loading dock was added to the eastern side of the building.
- A truck scale was added.
- A separate Office and Maintenance Building has been added.
- Additional tanks added within the secondary containment area.
- . The facility requires 175 m³/day. Southgate plans to explore supplementing this allocation with integrating water from the neighbouring wastewater treatment facility.
- Sanitary peak flow revised to be 2.1 L/s (increased from 1.7 L/s).
- An external sanitary pump station is now required to convey the flows to the sanitary forcemain in the Eco Parkway right-of-way.

- Peak domestic water demand revised to be 2.1 L/s, with the processing requiring 175 m³/day. The processing will occur over 12 hours, resulting in a peak demand of 4.05 L/s.
- Fire demand for the Organics Receiving Building increased from 105 L/s to 150 L/s. As a result, larger Wilkinson Heavy Precast storage tanks are proposed. These tanks are proposed to have a float sensor for automatic refill from the domestic water line for the site.
- Pre-development stormwater peak flow rates are doubled due to the increase in site area.
- Modifications to the secondary containment area and dry pond as required to account for larger site area and revised site plan.
- Additional grading works within the GRCA regulated area are required to achieve an overall balanced cut/fill.

Existing Conditions and Removals

- Trees within the site have already been removed. Contractor to remove any leftover stumps and/or roots. Trees within the provincially significant wetland are to remain.
- Monitoring wells to be removed and decommissioned as per O.Reg. 903.
- MNRF provincially significant wetland boundary and 15 m setback lines added to all drawings.

Grading Plan

- Various changes to site grading to accommodate the new site plan.
- Retaining wall no longer required in the secondary containment area.
- Various equipment pads added or relocated.
- Gated entrance into the Gasline Interconnect area for access without requiring entry to the entire site.
- Overall grading strategy remains the same. Northern flows are directed to catchbasins and the dry pond. Surrounding landscaped/underdeveloped areas are uncontrolled. The secondary containment area is controlled by a valve.

Servicing Plan

- Various changes to the storm sewer layout to accommodate the new site plan. Overall storm strategy remains the same.
- A backflow preventer is proposed on storm outlet to the dry pond to allow for proper OGS function.
- A trench drain is proposed at the bottom of the loading dock ramp. This drainage is collected and mechanically directed to the sanitary drain.
- Proposed building roofs drain to grade.
- Sanitary sewer is to be a gravity system until the pump station north of the Office and Maintenance shop. Both buildings will have gravity outlets towards the pump station.
- A water meter chamber was added near property line for the domestic water lines from the municipal system.

- Provisional water line added from the neighbouring wastewater treatment facility to the Organics Receiving Building.
- Fire water storage tanks are larger and relocated. A float sensor is proposed to allow for automatic refill using the domestic water line for the site. A backflow preventer will be installed within the building.

Erosion and Sediment Control Plan

- Various changes to accommodate the revised Site Plan.

We trust that the responses provided herein will allow you to continue the approval process for our submission. Should you have any other questions or concerns, please do not hesitate to contact the undersigned.

All of which is respectfully submitted,

WALTERFEDY



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