



TOWNSHIP OF SPRINGWATER

High-Level Peer Review

Water & Wastewater Servicing of Expanded Midhurst Secondary Plan Materials Submitted by Midhurst Landowners Group

Presented By: Joe Mullan, P. Eng., President & CEO

July 2, 2025



Presentation Overview



Further to Council’s Motion C280C-2025 at the June 18, 2025 Council Meeting, we have completed a high-level peer review of the following documents:

No.	Letter Reference or Report Title	Prepared By	Date
1	Letter RE: Follow-up to May 15, 2025 correspondence regarding Future Residential, Community and Employment Lands in Springwater Including the following specific documents that are attached (See Note 1)	Daniel Steinberg	June 02, 2025
	• Midhurst Settlement Area Boundary Expansion - Wastewater Servicing	TYLin	June 02, 2025
	• Midhurst Settlement Area Boundary Expansion - Water Servicing	TYLin	May 14, 2025
	• Midhurst Expansion Lands Preliminary Assimilative Capacity Study (ACS) and Phosphorus Budget Concepts	Hutchinson Environmental Sciences Ltd	May 15, 2025
	• Midhurst Settlement Area Boundary Expansion – Linear Servicing Considerations	SCS Consulting Ltd	May 12, 2025
2	Letter RE: Council Meeting on June 4, 2025 Item 6.1 WSP Growth Management Presentation	Daniel Steinberg	June 13, 2025

Note 1: Other documents were attached to this letter, but were not peer reviewed by Ainley Group.

Wastewater Servicing Review

On Page 5 of 6 of the Daniel Steinberg Letter dated June 2, 2025, submitted on behalf of MLG to the Township, the following is noted:

d. The proposed expansion to the MSP area can be serviced through expansion and/or improvement to the existing wastewater treatment facility and infrastructure.

b. The effluent limits for the expanded WWTP can be managed/treated to meet discharge requirements. If required, additional treatment technology can be implemented or holding a portion of effluent discharge during low flow period and discharging slightly higher volumes during high flow periods is a potential alternative to enhanced treatment for some parameters. This will be determined through the detailed ACS.

- In our opinion, sufficient backup information has not been submitted to support these statements.

Wastewater Servicing Review

On Page 4 of 5 of the TYLin Wastewater Servicing Memorandum (page 33 of 155) the following is noted:

The equivalent residential units from the proposed employment area are excluded with the assumption that the total population serviced by the Midhurst WWTP remains the same. This means the residents from Midhurst will be employed to the proposed employment area and as such, the sanitary servicing demand would be for the same total population.

- The assumption that the employment lands will only have employees from the new development areas in Midhurst and; therefore, will not need wastewater capacity is not realistic and is an assumption that we cannot support.
- Further, we know from other Municipalities in Simcoe County, such as New Tecumseth and Collingwood, that their employment areas generate large wastewater volumes that must be treated at their WWTP's.

Wastewater Servicing Review

- Wastewater flow allowances for Employment Lands can vary greatly, depending upon the type of employment proposed. The Ministry previously provided a guideline range of between 25 m³/ha/day to 55 m³/ha/day for Industrial/Employment lands.
- Using the low end of this range for the proposed Highway 400 Employment Lands, which as per the MGP May 15, 2025 Memo has 895 gross development hectares, would require Wastewater Average Day Flow capacity of 22,375 m³/day.

Wastewater Servicing Review

- Using Table 3.2 on page 4 of 5 of TYLin’s Wastewater Servicing Memorandum (page 33 of 155):

Parameter	Unit	Existing MSP	Existing MSP+ Potential Expansions
Equivalent Units	Units	9,546	19,937
Population	#	28,638	59,811
Peak Dry Weather Flow Factor	-	2.50	2.19
Average Daily Dry Weather Flow (ADDF)	m ³ /d	6,444	13,457
Average Daily Flow (ADF)	m ³ /d	9,021	18,840 41,215 m ³ /d
Peak Hourly Flow (PHF)	m ³ /d	18,668	34,897

- The projected Average Day Flow from the Existing MSP + Potential Expansions, including the Employment lands, would be 41,215 m³/day and not 18,840 m³/day. This means that the WWTP would have to be approx. 3.5 times larger than the 12,314 m³/day identified in Midhurst Class EA.

Wastewater Servicing Review

On page 6 of 12 of the Hutchinson Environmental Sciences Ltd letter (page 40 of 155), the following is noted:

If the Full Build Out effluent limits do not meet treatment requirements for the expanded WWTP; additional treatment technology can be implemented or holding a portion of effluent discharge during low flow period and discharging slightly higher volumes during high flow periods is a potential alternative to enhanced treatment for some parameters.

- The suggestion that “additional treatment technology can be implemented” is concerning because the Midhurst Class EA already proposes “best available treatment technology” (i.e. Membranes) and the next level of treatment would require technology such as Reverse Osmosis (RO), which are extremely expensive to purchase and to operate and, as such, are not commonly utilized in large WWTP’s in Canada.

Wastewater Servicing Review

- Further, the suggestion that the effluent discharge could be held back during periods of low flow in Willow Creek, is not a practical solution.

For example, if we assume that 50% of the effluent discharge would have to be held back, at full build out, for a period of 7 consecutive days of low flow in Willow Creek (i.e. a typical hot dry spell in the summer), this would require a holding tank with a capacity of approx. 66,000 m³.

A tank with this capacity would need to be 110 m long and 60 m wide (i.e. the size of typical football field) and be 10 m deep.

Water Servicing Review

At the top of page 4 of 5 of TYLin's Water Servicing Memorandum (page 50 of 155), the following is noted:

The equivalent residential units from the proposed employment area are excluded with the assumption that the total population serviced by the Carson WTP and Doran WTP remain the same. This means the residents from Midhurst will be employed to the proposed employment area and as such, the water servicing would be for the same total population.

- The assumption that the employment lands will only have employees from the new development areas in Midhurst and; therefore, will not need water capacity is not realistic and is an assumption that we cannot support.
- Utilizing the same 25 m³/ha/day for water capacity requirements for the proposed Highway 400 Employment Lands, with 895 gross development hectares, would require a Maximum Day Demand (MDD) capacity of 466 L/s (assuming a Max day factor of 1.8).

Water Servicing Review

Doran Road WTP			
Parameter	Unit	Existing Doran Development	+ Potential Expansion
No. of Units	Units	5,299	8,168
Population	#	15,897	24,504
Minimum Hour Demand (MHD)	L/s	42.0	64.7
Average Day Demand (ADD)	L/s	69.9	107.8
Maximum Day Demand (MDD)	L/s	132.8	204.8 670 L/s
Peak Hour Demand (PHD)	L/s	199.3	307.2
Fire Flow (Class EA)	L/s	133	133
Fire duration	hrs	3	3
A = 25% of MDD	m ³	2,869	4,423
B = Fire Flow	m ³	1,436	1,436
C = 25% of (A + B)	m ³	1,076	1,465
Required Storage Volume = A + B + C	m ³	5,382	7,324

- The projected Maximum Day Demand from the Existing Doran Development + Potential Expansions, including the Employment lands, would be 670 L/s and not 204.8 L/s.

Water Servicing Review

- The Midhurst Class EA identified a total eleven (11) new wells (6 for Doran Road WTP and 5 for Carson Rd WTP) to provide the required Well Capacity of 209.6 L/s.
- The proposed Expansion Lands, including the Employment Lands (Carson Road WTP and Doran Road WTP) would require a total of 917 L/s of Well Capacity (i.e. over 4 times larger than the 209 L/s noted in the Class EA) and no hydrogeology work has been submitted to confirm if this amount of additional Water Supply is available in Midhurst.

Linear Servicing Review

On page 6 of 6 of the SCS letter regarding Servicing Considerations (page 56 of 155), the following is noted:

As the proposed expansion areas are adjacent to the existing Midhurst Secondary Plan, and the majority of the communal infrastructure is yet to be constructed, there is a feasible natural extension of the proposed water and sanitary sewer networks available to service the proposed expansion areas as shown in greater detail for both water and sanitary on Figure 5.

- This letter fails to note that a lot of the infrastructure that has been constructed or is currently being constructed by the MLG to service the developments within the MSP, will be not be large enough to service the proposed Expanded MSP, including the sanitary forcemain(s) being constructed through Midhurst from Gill Road to the WWTP on Snow Valley Road.

Future Growth Review

On Page 3 of 6 (under the heading of Phase 2) of the Daniel Steinberg Letter dated June 13, 2025, submitted following the June 4, 2025 Council meeting agenda Item 6.1 WSP Growth Management Presentation, the following is noted:

Since December 2023, the MLG has been working with Township Staff, Ainley Group, and project engineers TYLin on the Phase 2 expansion of the WWTP. The design of the expansion is complete and approved and in August or September 2025, construction will commence.

Construction of the plant expansion will be complete and commissioned 2028. On commissioning, the plant will have an immediate capacity for an additional 4,000 residential units.

- While the Engineering Design for Phase 2 for the WWTP has been completed and the project has been tendered, the tender came in at just over \$160 M and, due to several factors, the MLG are currently unable to proceed with the award of the full tender at this time.

Future Growth Review

- The MLG and their Engineers TYLin, in conjunction with the Township and Ainley, are currently working with the contractor (Kenaidan Contracting Ltd) to de-scope the overall Project to achieve a lower tender award price, which the MLG hope to be in the range of \$80 to \$90 M.
- Therefore, until the de-scoping for the current tender has been completed and all parties agree on what components or portions of the Phase 2 WWTP will be constructed by Spring of 2028, it cannot be confirmed that the Phase 2 WWTP will have capacity for an additional 4,000 residential units.

Future Growth Review

At the top of Page 4 of 6 of the Daniel Steinberg Letter dated June 13, 2025, the following is noted:

Phase 2 Expansion Midhurst Wastewater Treatment Plant		
	Commissioned 2028	Post Monitoring 2032
Flow Rate	315 L/c/d	225 L/c/d
Additional Capacity	4,000 units	5,600 units

- Since the completion of the Midhurst Class EA, the MLG and their Engineers TYLin have worked with the Township and Ainley to fine tune the Design Criteria being used for the WWTP. As such the Per Capita Flow allowance has been reduced from 430 L/c/d to 315 L/c/d.
- However, we are not in agreement with the suggestion that this value can be further reduced to 225 L/c/d. Therefore, we are not in agreement with the projected 5,600 units referenced for 2032.

Future Growth Review

At the top of Page 4 of 6 of the Daniel Steinberg Letter dated June 13, 2025, the following is noted:

The table below shows that by the end of 2028 the Midhurst WWTP will have capacity to service 5,529 housing units, of which 1,529 units are currently committed. Flows to the expanded WWTP will be monitored for a period of four years, following which it is expected that the capacity of the plant can be increased to service 7,129 units (based on the monitoring data showing actual use much lower than design assumptions).

Summary Phase 1 and Phase 2			
		Post Monitoring	Status
Phase 1	1,529 units	1,529 units	Committed
Phase 2	4,000 units	5,600 units	To be determined
Totals	5,529 units	7,129 units	

Future Growth Review

- As previously noted, the Township did not agree that the per capita flow allowance could be reduced further to 225 L/c/d for the Ultimate WWTP. Therefore, we are not in agreement with the projected 5,600 units referenced for 2032.
- Phase 1 (or as it has been historically called the “Interim WWTP”) was designed and constructed as a temporary WWTP to be utilized until the Ultimate WWTP is built and the Township has not agreed to it being a permanent WWTP.
- Therefore, we are also not in agreement with adding the capacity of 1,529 units from the Phase 1 WWTP (or interim WWTP) to arrive at a total of 7,129 units.

Future Growth Review

In the middle of Page 4 of 6 of the Daniel Steinberg Letter dated June 13, 2025, the following is noted:

It is noted that the Highway 400 Employment Lands could be serviced today. Water and wastewater linear infrastructure exists in the Doran Neighbourhood of Midhurst, roughly two kilometres away from the Forbes Road interchange on Highway 400. Our previous submissions note that the cost to extend this linear infrastructure would be in the order of \$15MM (based on \$7,000/metre).

- The \$15 Million estimate for extending the pipes to the proposed Employment lands only and seems reasonable, but it does not include estimates for other critical components including Water Treatment & Pumping, Water Storage, Wastewater Treatment & Pumping.
- While **no** engineering design or analysis has been completed, it is estimated that the costs to provide Water and Wastewater Services to the Employment Lands could be upwards of \$200 Million.

Future Growth Review

In the middle of Page 5 of 6 of the Daniel Steinberg Letter dated June 13, 2025, the following is noted:

The cost to extend linear water and wastewater infrastructure to the Remington and Sadlon properties from the existing constructed linear infrastructure is estimated at \$15MM (a distance of approximately two kilometres @ \$7,000/metre).

Based on the presentations to Council made by Remington and Sadlon regarding proposed development yield, the cost on a per unit basis is estimated at \$6,000. Factoring in the development potential set out in the Bayfield Street Corridor Study reduces the cost per unit to \$3,500.

- The \$15 Million estimate for extending the pipes to the Remington & Sadlon properties seems reasonable, but it does not include estimates for other critical components including Water Treatment & Pumping, Water Storage, Wastewater Treatment & Pumping.
- While no engineering design or analysis has been completed, it is estimated that the cost to provide Water and Wastewater Services to these lands could be upwards of \$100 Million.

Questions?