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To: Gerrit Boerema

Date: December 22, 2025

From: Lucy Horne

cc: Karl Grueneis

Memorandum

Subject: **Smithville MCP North Area Wastewater Servicing Strategy Update**

1. Introduction and Purpose

The Township of West Lincoln (Township) completed a servicing Master Plan in April 2023 to identify the preferred wastewater servicing strategy for the Smithville Master Community Plan (MCP), North Community Area and documented the process in the *Smithville MCP Integrated Municipal Class Environmental Assessment (MCEA) Master Plan Report*. However, in August 2023 the MCP project team was made aware of subsurface work restrictions and evaluation requirements and approvals as described in the Township's Official Plan in relation to the proposed deep gravity sewer associated with the preferred wastewater servicing strategy (i.e. Wastewater Project S1WW1) for the Smithville MCP North Land Use Area as identified in the above noted Master Plan Report (April 2023).

Given the above, the project team completed additional review of the preferred wastewater servicing strategy. The purpose of this memorandum is to document the additional review and planning process undertaken by the municipality to confirm the preferred wastewater servicing strategy for the Smithville MCP, North Community Area Land Use Plan (also referred to as Stage 1 Area).

2. Background

In 2019, the Township initiated a MCP process to guide the future development of the community of Smithville through a comprehensive, watershed-based, integrated land use and infrastructure planning approach. The process involved extensive consultation and engagement with the public and key stakeholders including public agencies and partners, area landowners and their consultant representatives and advisors, in addition to Indigenous communities. The MCP is a detailed land-use plan and policy document which provides a comprehensive plan for sustainable future growth and expansion in the Smithville Urban Area.

The Smithville MCP followed MCEA Master Plan Approach No. 4 (Integration with the Planning Act). Master Plan Approach No. 4 recognizes the benefits of integrating Phases 1 and 2 of the Schedule 'B' MCEA Master Plan process with approvals under the Planning Act, especially with larger projects such as Secondary Plans. This means that the requirement of the Environmental Assessment Act (primarily through the MCEA process) and the Planning Act, including public notice requirements, are met as one integrated and coordinated process and with streamlined approvals and appeals. This approach is desirable for long-term planning where interdependent decisions which impact servicing and land use are being made and the range of servicing alternatives needs to be addressed in an integrated fashion, so as to recommend the best overall municipal infrastructure servicing solutions for the Community to be implemented over the 30-year planning horizon (to 2051).

Successful completion of the Integrated Master Plan Approach No. 4 results in Phases 1 and 2 of the Class EA process being fulfilled and therefore select Schedule B projects identified within the document can proceed to implementation following completion of the Integrated Approach. Provided there are no Planning Act appeals to The Regional Municipality of Niagara's decision on the Township of West Lincoln Official Plan Amendment No. 63 (OPA 63), or upon the resolution of any appeals, the proponent (Township or Region) may proceed to the design and construction phase the project. Placement of the Integrated MCEA Report for public review on the Township's website and issuance of the MCEA Notice of Completion completes Phase 2 of the MCEA process. The 30-day MCEA comment period commences when Niagara Region issues its Notice of Decision of OPA 63 which includes the 20-day appeal period as set out under the Planning Act.

The MCEA defines four types of Project Schedules referred to as a Schedule A, A+, B, or C. The selection of the applicable schedule is dependent upon the works proposed, the anticipated level of environmental impact, and anticipated costs. This study has been completed with the intent to address Phases 1 and 2 of the MCEA process and thereby satisfy requirements for a Schedule B planning activity. Each MCEA schedule is further detailed below:

- Schedule A: Projects are limited in scale, have minimal adverse environmental effects and include a number of municipal maintenance and operational activities. These projects are pre-approved and may proceed to implementation without following the full MCEA planning process.
- Schedule A+: The purpose of Schedule A+ is to ensure appropriate public notification for certain projects that are pre-approved under the Municipal Class Environmental Assessment. It is appropriate to inform the public of municipal infrastructure project(s) being constructed or implemented in their area.
- Schedule B: These projects have the potential for some adverse environmental effects. The proponent is required to undertake a screening process (Phases 1 and 2), involving mandatory contact with directly affected public and with relevant review agencies to ensure that they are aware of the project and that their concerns are addressed. If there are no outstanding concerns, then the proponent may proceed to implementation. At the end of Phase 2, a Project File documenting the planning process followed through Phases 1 and 2 shall be finalized and made available for public and agency review.

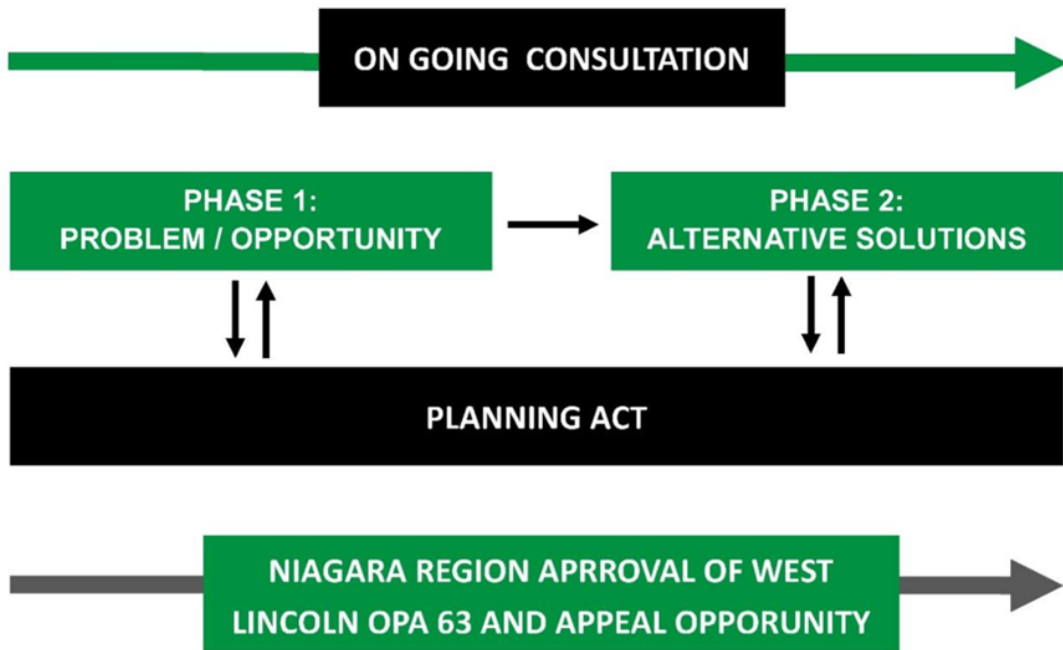
- Schedule C: These projects have the potential for significant adverse environmental effects and must proceed under the full planning and documentation (Phases 1 to 4) procedures specified in the MCEA manual. Schedule C projects require that an Environmental Study Report be prepared and filed for review by the public and review agencies.

Projects classified as Schedule A and A+ were historically considered pre-approved; however, the approval of Bill 108 (More Homes, More Choice Act) resulted in an amendment to the EA Act so that these low impact projects are now considered exempt from the EA Act. Schedule A and A+ projects can proceed to implementation; and as such can proceed to design and construction without any public notifications.

However, for Schedule B and C projects if a concern is raised related to aboriginal and treaty rights which cannot be resolved, a Section 16 Order may be requested and considered by the Minister of the Environment, Conservation and Parks.

The MCEA Master Plan process followed for this undertaking was completed with the intent of addressing MCEA Phases 1 and 2 and thereby fulfilling the requirements for select Schedule B projects. Any Schedule B projects that may require further study to fully address MCEA Phases 1 and 2 requirements in addition to projects categorized as a Schedule C project requiring completion of MCEA Phases 3 and 4 prior to implementation (Phase 5) have also been identified.

Figure 2 MCEA EA Act Process and Planning Act Process



OPA 62 (Urban Boundary Expansion) was adopted by West Lincoln Council in July 2022 and OPA 63 (Smithville MCP Secondary Plan) was adopted by West Lincoln Council in August 2022. OPA 62 and OPA 63 were approved by Niagara Region Council on April 20, 2023.

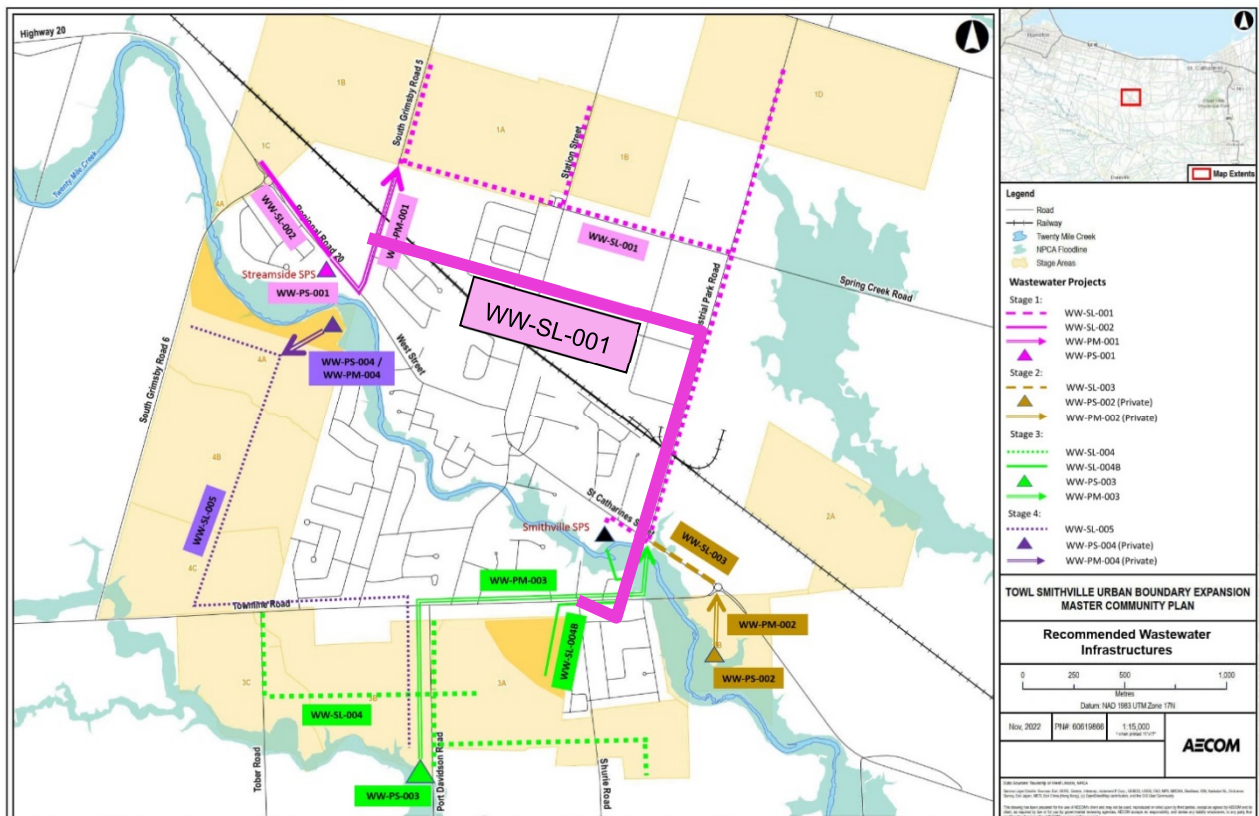
On March 27, 2023, the Township Council endorsed the Smithville Transportation and Water and Wastewater Master Plans, and the Notice of Integrated EA completion was issued in late April 2023.

One appeal of OPA 63 was received which was largely resolved through the Ontario Land Tribunal mediation process in 2024, however, there are still a number of outstanding issues related to Natural Heritage that do not impact this MCP North Area Wastewater Servicing Strategy Update.

3. Proposed Design Changes to the Stage 1 Wastewater Servicing

The preferred wastewater servicing strategy for the Smithville MCP North Land Use Area was based on a deep gravity sewer to be constructed within existing and future road allowances. As illustrated below in Figure 3, Wastewater Project S1WW1(as documented in the April 2023 Integrated MCEA Master Plan Report) proposed the construction of a new sewer gravity main on Spring Creek Road from South Grimsby Road 5 and easternly to Industrial Park Road. The

Figure 3 Preferred 2023 MCP Wastewater Servicing Strategy

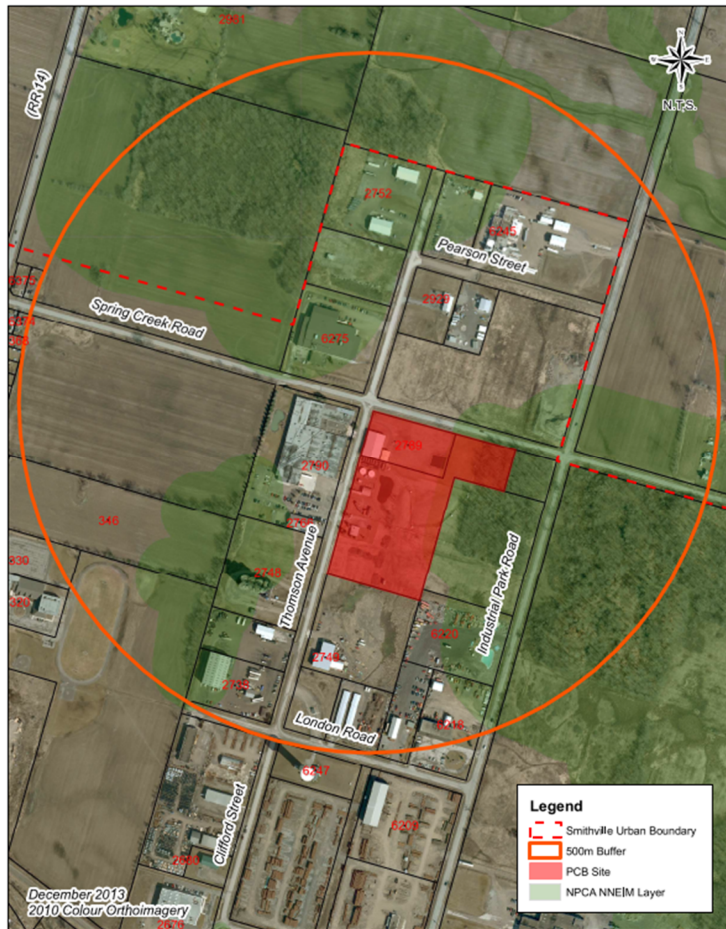


gravity sewer would continue southerly down Industrial Park Road to Regional Road 20 then westerly to the Smithville Pumping Station. There is no crossing of Twenty Mile Creek, and one crossing of rail tracks on Industrial Park Road.

In August 2023 the MCP project team was made aware of the subsurface work restrictions and evaluation requirements (compliance with Township's Official Plan, as per below) and subsequent Ministry approvals in relation to the proposed deep gravity sewer (to be constructed in bedrock) and Township of West Lincoln Official Plan Section 4.9 (d) Special Provisions (i) Area 4 dictates that "Special Policy Area 4 (SPA 4) includes all designated industrial lands within 500 metres of the intersection of Spring Creek Road and Thompson Road, as shown on Schedule "A", Map 2. "Drilling, vibration, blasting, bedrock excavation and taking of groundwater shall be restricted and may only be undertaken subject to a professional assessment of such activities and the approval of the Ministry of Environment."

Specifically, Official Plan Section 6.10 Employment Area, Subsection 6.10.4 Employment Area Policies, item g) dictates that "All designated employment lands within 500 metres of the intersection of Spring Creek Road and Thompson Road, as shown on the land use plan shall be subject to the following provision: drilling, vibration, blasting, bedrock excavation and taking of groundwater shall be restricted and may only be undertaken subject to a professional assessment of such activities and the approval of the Ministry of Environment." The restricted zone is displayed in Figure 4.

Figure 4 PCB Groundwater Contamination Site and 500 metre Buffer



Source: MECP, December 2013

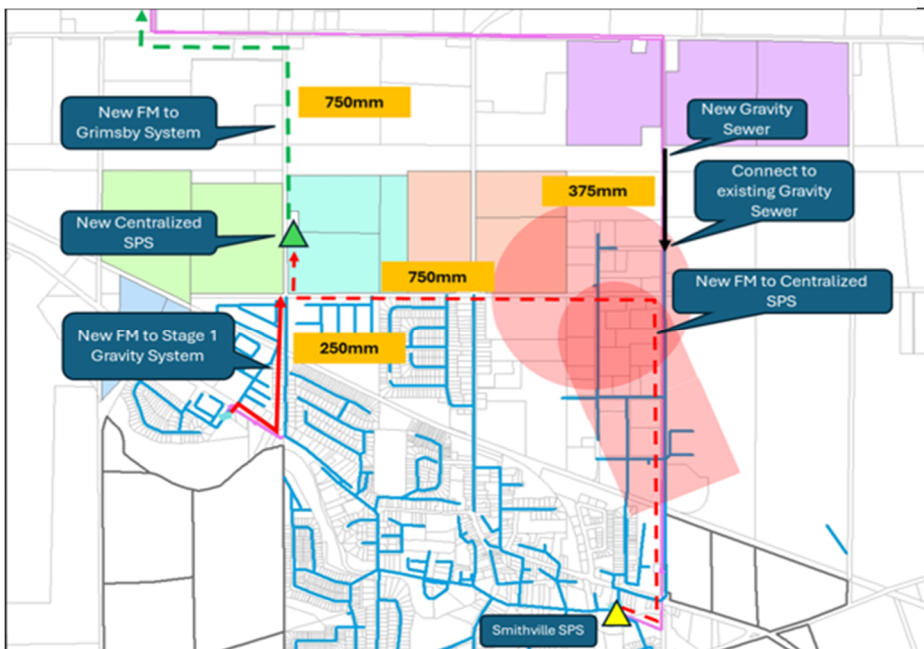
In response, beginning in October 2023 several meetings were held with MECP (Jason Rice, Regional Engineer, West Central Region and other MECP staff) and the MCP Team to better understand the Official Plan policy implications and project implementation risks. Through consultation with the MECP, it was confirmed that compliance with the Official Plan Section 6.10 Employment Area, Subsection 6.10.4 Employment Area Policies, item g) only applies to work in bedrock (disturbance which may include, but not limited to water taking) and any work above bedrock may proceed. Specifically, work in bedrock (e.g., disturbance of bedrock from construction of a new gravity sewer) has the potential to interfere with the groundwater collection and treatment system and contaminated groundwater plume that occurs in fractured bedrock. Should construction in bedrock affect the plume extent (causing contaminant migration), the MECP's existing groundwater mitigation system may require evaluation and modifications to the system to prevent further migration of the groundwater plume. This in turn presents a potential significant risk for any work in bedrock within the 500-metre radius restriction zone defined under the Township's Official Plan, including the originally proposed gravity sewer.

As a result, AECOM was directed to explore other wastewater servicing options in consultation with the MECP and Niagara Region.

AECOM, the Township, and the Region worked collaboratively to develop and evaluate four new wastewater servicing options consisting of a combination of deep gravity sewer and sanitary pumping station (SPS)/forcemain (FM) options. Please refer to **Attachment A**, March 17, 2025, Smithville MCP Stage 1 Wastewater Servicing Strategy Technical Memorandum for further information on the development and evaluation of wastewater servicing options.

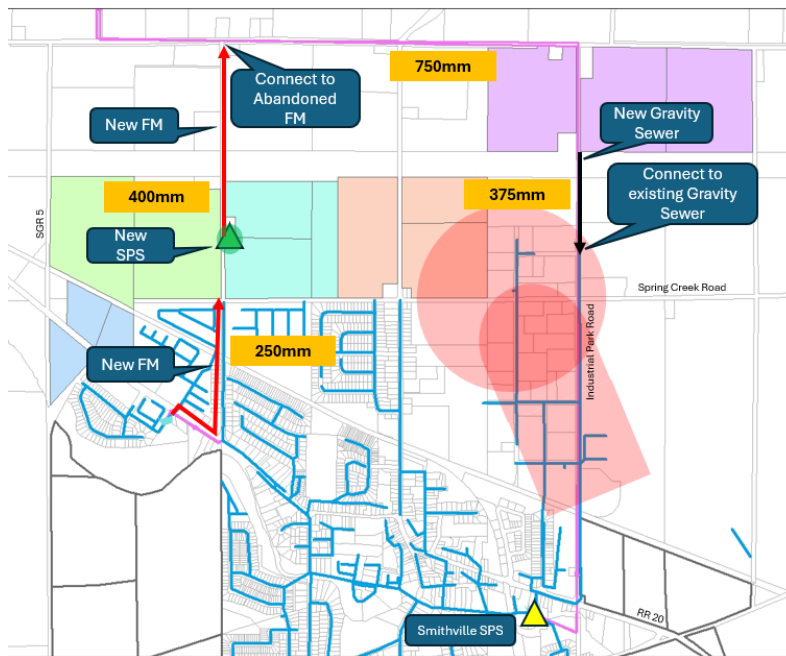
Following the EA evaluation process, Option 4 was identified as the preferred solution as illustrated in **Figure 5**, which involves a new centralized SPS within the Stage 1 Area and a new 750mm forcemain to connect to the Grimsby Sanitary Sewer System. This option allows for a phased strategy and additional time for the Region to plan and implement the future 750mm forcemain as part of the Smithville Sanitary Pumping Station Upgrades. This strategy will also allow the Township / Region to service the future system beyond 2051 should another urban boundary expansion be implemented. For the interim wastewater servicing to meet the short-term wastewater servicing needs, the Region will temporarily implement Option 3, as illustrated in **Figure 6**, and will ultimately implement Option 4. The interim Option 3 will involve the utilization of the existing forcemain up to the maximum capacity by increasing pump capacity at the existing station. As the ultimate capacity for the new Centralized SPS will be greater than 170 L/s, it is therefore considered a Regional infrastructure project that will be captured within the next update to the Region's Development Charges program for implementation. The Township will be responsible for obtaining the SPS land through the Planning Application process which will ultimately be transferred to the Region.

Figure 5: Preferred Solution – Option 4



- Design Duration: 2 years
- Construction Duration: 5 years (Requires the future 750mm FM from New Centralized SPS to Grimsby System, green dashed line, also requires trunk sewer upgrades downstream of the forcemain discharge as captured in Region of Niagara's 2021 MSP)
- The future 375mm sanitary sewer on Industrial Park Road will connect to the existing gravity sewer, which is above bedrock as per built drawings, therefore no disturbance of bedrock or groundwater monitoring is anticipated.
- Total Capital Cost: \$125.4M

Figure 6: Interim Solution – Option 3



- Total Life Cycle Cost: \$296.8M
- Design Duration: 2 years
- Construction Duration: 2-3 years
- Interim solution: connect the new 400mm South Grimsby Rd FM to the existing abandoned 300mm FM on Yonge Street (Require additional costs for Rehabilitation of the abandoned 300mm FM)
- The future 375mm sanitary sewer on Industrial Park Road will connect to the existing gravity sewer, which is above bedrock as per built drawings, therefore no groundwater monitoring is anticipated.
- Total Capital Cost: \$129.0M
- Total Life Cycle Cost: \$281.0M

Impacts to PCB Groundwater Plume

Based on the proposed SPS distance from the approximate lateral (horizontal) extent of the contaminated groundwater plume associated with historical releases from the Smithville PCB Site, including the 500 meter radius (restriction zone as defined by the Township's Official Plan) around the Smithville PCB Site, available SPS construction methodologies (e.g. sealed

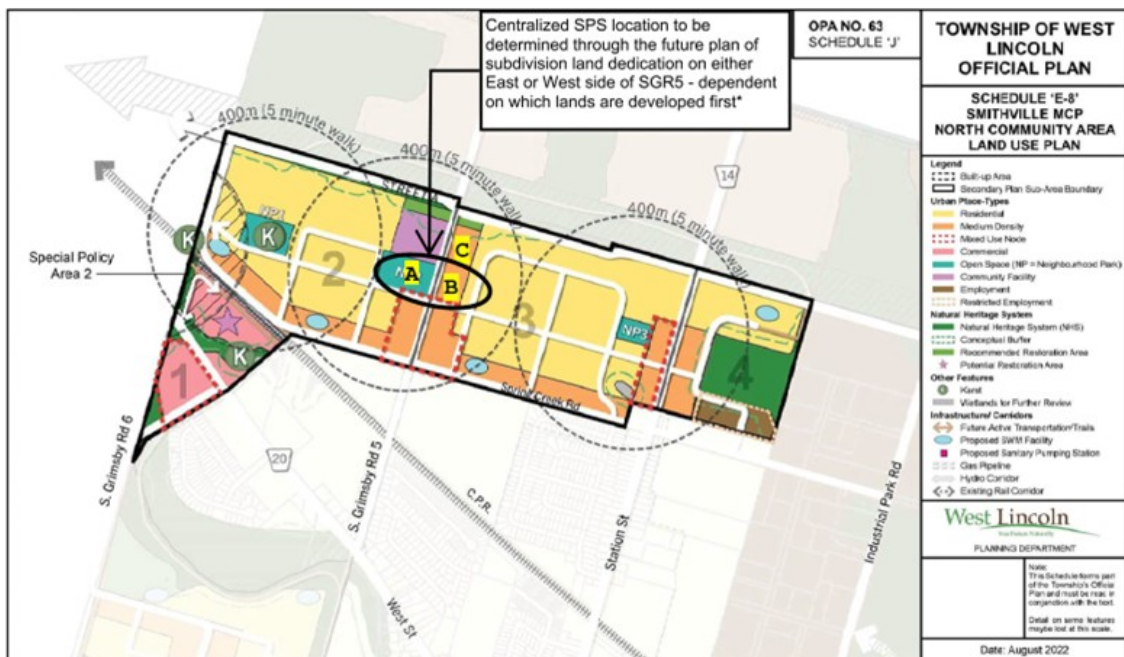
excavation wet well / dry well – no dewatering in bedrock) and short-term construction duration, the risk of interfering with groundwater levels and PCB plume migration has been determined to be low.

Through discussions, MECP is more concerned with the construction of new linear infrastructure (i.e. deep gravity sewer) in bedrock (refer to **Attachment A** for deep gravity sewer options) as compared to the SPS option, which is much further away from the extent of the 500-m restriction zone vs. the lateral gravity feed sewer option and also provides more control to groundwater management with construction conducive to a water-tight construction system. Once the SPS is built, groundwater conditions are anticipated to return to normal state. The construction of a new deep gravity sewer line in bedrock has the potential to affect the groundwater plume by creating a “French Drain” (a preferential flow path), however, this can be mitigated by using trench plugs. MECP also indicated that the deep sewer in bedrock option will require more involved / comprehensive groundwater monitoring and the SPS option will require relatively / substantially less complicated groundwater monitoring. It is anticipated that a set list of monitoring wells may be used to monitoring groundwater levels/conditions during construction. However, construction of sewer laterals in bedrock may require adjustments to the list of monitoring wells used for monitoring as construction moves along the lateral extent over time. A field investigation that will include monitoring of the groundwater conditions and the contaminant plume is typically done during Preliminary Design.

SPS Siting

For both Concepts 3 and 4, it is assumed that the new SPS will be sited within the North Community Area Land Use Plan on either the east side or west side of South Grimsby Road 5 as shown the **Figure 7** below.

Figure 7: Schedule E-8, North Community Land Use Plan



The Centralized SPS location will be determined in consultation with potentially affected landowners through the future plan of subdivision land dedication on either the east or west side of South Grimsby Road 5 - dependent on which lands are developed first. The affected landowner for the property on the west side (A) of South Grimsby Road 5 at this time does not have any plans to submit a development application in the near future. Regarding the east side (B) of South Grimsby Road 5 was notified of the proposed SPS within the Medium Density Block and did not raise any concerns at the time, however they are not at the plan of subdivision pre-consultation stage. The affected property owner north of B (C) also expressed willingness to host the SPS through future discussions.

In terms of land requirements, a minimum parcel size of 40 x 80 meters (plus temporary easements during construction) will be needed. This site size would also be sufficient to accommodate the ultimate MCP planning horizon beyond 2051 and allow for expansion to the SPS if required in the future. The parcel size would also accommodate SPS expansion related to achieving higher densities than planned.

Other Infrastructure Changes

Based on the preferred wastewater servicing strategy for the Stage 1 area, the required capacity for Smithville Sanitary Pumping Station (SPS) and the size of the future sewer lines on St. Catharine Street, between Industrial Park Road and the existing Smithville SPS, will be affected.

Since the preferred strategy for Stage 1 will no longer convey flows generated from Stage 1 areas to the Smithville SPS, the total peak flows to the Smithville SPS will be reduced. According to the hydraulic modelling analysis, the flow reduction in the Smithville SPS will result in the following changes in infrastructure requirements for servicing the entire urban boundary expansion.

- Smithville SPS required capacity = 490 L/s
- Required size for gravity sewer on St. Catharine Street, between Industrial Park Road and existing Smithville Sanitary Pumping Station (SPS) = 600mm

4. MEA MCEA Manual Project Classification

Wastewater Project WW-SL-001 (as documented in the April 2023 Integrated MCEA Master Plan Report) was determined to fall under the 2015 MEA MCEA Appendix 1 – Project Schedules “Project No. 18 Any project which would otherwise be subject to this Class EA and has fulfilled the requirements outlined in Section A.2.9 (Integration with Planning Act) of this Class EA and for which the relevant Planning Act documents have been approved or have come into effect under the Planning Act R.S.O 1990, Chapter P.13, as amended”. As per the above Footnote 1 Project WW-SL-001 was considered exempt upon approval of OPA No. 63 and any resolution of any appeals.

Considering the above, the preferred wastewater servicing strategy was renamed WW-SL-001R.

Considering the 2015 MEA MCEA Appendix 1 – Project Schedules the revised wastewater servicing strategy (WW-SL-001R) falls under “Project No. 10 Establish, extend, or enlarge a

sewage collection system and all necessary works to connect the system to an existing sewage outlet, where it is required as a condition of approval on a site plan, consent plan of subdivision or plan of condominium which come into effect under the Planning Act prior to the construction of the collection system” and as such, is considered exempt from the Environmental Assessment Act.

A meeting will be held between the Township and the potentially impacted landowners to confirm the new sewage SPS location and forcemain alignment to be approved under the plan of subdivision process.

5. Mitigation, Monitoring and Implementation Recommendations

a. MECP Geotechnical and Hydrogeological Monitoring Program

Through consultation with the MECP and in accordance with the subsurface work restrictions in the 500-m radius around the Smithville PCB Site that is described in the Township’s Official Plan, it has been confirmed that any works in the overburden soil above bedrock (i.e. installation of forcemains) will not require work restrictions as described by Township of West Lincoln Official Plan Policy Section 6.10 Employment Area, Subsection 6.10.4 Employment Area Policies, item g).

That said, as a precaution and in cooperation with MECP to ensure protection of the environment, a geotechnical and hydrogeological monitoring program will be developed in consultation with MECP for the construction work associated with the new SPS (work in bedrock). MECP confirmed that the geotechnical and hydrogeological monitoring program may be requested for projects outside the 500-m zone, depending on the magnitude of the project (e.g., disturbance of bedrock) and if work occurs in the vicinity of the boundaries of the 500-m zone under the OP.

It is anticipated that MECP will request an additional condition on certain development applications within the Stage 1 Area where construction work involves bedrock disturbance. To address this, a comprehensive geotechnical and hydrogeological monitoring program will be developed in consultation with MECP. To comply with this potential condition, it is recommended that the technical memorandum outlining the geotechnical and hydrogeological monitoring program be submitted to MECP for review and comment prior to the implementation of field work. MECP will review the geotechnical and hydrogeological report as part of the design process, facilitating the approvals process for water takings and ECA applications.

MECP will provide existing groundwater monitoring program data associated with the on-going management of the Smithville PCB Site, which may be used to support the geotechnical and hydrogeological report to establish baseline conditions and monitoring parameters prior to any construction. Monitoring will start in the design phase and span the entire construction duration with a post monitoring duration of 2 years. During this period, regular reporting to MECP will occur.

Should the monitoring of the groundwater plume indicate a negative environmental impact (e.g., construction in bedrock is negatively impacting the groundwater mitigation systems at the

Smithville PCB Site and/or off-site contaminant plume migration), then MECP will require further investigation and possible remedial measures to prevent further environmental impact.

b. Other Mitigation Measures

Potential effects related to construction of the recommended capital works as described in Section 4 for Subwatershed/stormwater management, transportation, water and wastewater servicing will be limited to the duration and location of construction, where possible. Based on the preferred solution and associated project description, construction, operation and maintenance of the Project, it is recognized that the infrastructure improvements will result in some impact on the existing environment. By incorporating proper best management practices and construction techniques, adverse construction related effects can be minimized. In order to address potential effects, the following approach has been undertaken:

- **Avoidance:** The first priority is to prevent the occurrence of negative or adverse environmental effects associated with construction of the recommended works.
- **Mitigation:** Where adverse environmental effects cannot be avoided, it will be necessary to develop appropriate measures to eliminate, or reduce to some degree, the negative effects associated with construction of the recommended works.
- **Compensation:** In situations where appropriate mitigation measures are not available, or significant net adverse effects will remain following the application of mitigation measures, compensation measures may be required to counterbalance the negative effect through replacement in kind, or provision of a substitute or reimbursement.

The existing conditions were used as baseline conditions against which changes due to the project (effects) were assessed. Based on the project description for the preferred alternative strategies identified in Section 4, avoidance measures can be applied in many cases, thereby reducing the extent of potential adverse environmental effects requiring the application of mitigation measures. The mitigation measures summarized in Attachment B are general in nature based on the preferred infrastructure strategies and recommended to ensure that any short and long-term disturbances are managed efficiently through a variety of measures. These measures will be confirmed and refined during the future block plan and Master Environmental Servicing Plan processes and the site specific preliminary / detailed design phases of the recommended works.

Please refer to Attachment B for potential impacts and mitigation measures.

6. Stakeholder and Review Agency Consultation

Through the MCP North Area Wastewater Servicing Strategy Update process, the Township has reached out to key Stakeholders to explain the revised Wastewater Servicing Strategy. This includes:

- Two (2) presentations to the Smithville MCP North Area Landowners Group (September 18th, 2024, and January 20th, 2025);

- Two (2) presentations to the Smithville Developers Round Table (October 11th, 2024, and February 28, 2025);
- Multiple meetings with MECP to better understand the Township's Official Plan 500-m radius restriction zone (disturbance of bedrock and water taking restrictions), and construction challenges and potential impacts on the groundwater mitigation system for the Smithville PCB Site, the framework for MECP's requested groundwater monitoring program (during construction in bedrock) and potential implications on the selection of the preferred revised Wastewater Servicing Strategy;
- The Township also reached out to select property owners to inform them of the potential SPS locations and property impacts. Through the process the Township has identified potential hosts, the Township will accordingly work with the affected property owner process to secure the lands through future planning applications.

7. Conclusion and Recommendations

Wastewater Project S1WW1R (Option 4) has been confirmed as the preferred servicing strategy considering:

1. Reasonable capital cost.
2. Straightforward constructability including low complexity, minimal anticipated bedrock removal, groundwater management, available working area SPS and forcemain and low local community impacts.
3. Straightforward property requirements (no concerns from affected landowner – east side South Grimsby Road).
4. Lowest implementation risk considering work in / disturbance of bedrock, Township's Official Plan 500-m restriction zone and the potential disturbance to the PCB contaminated groundwater plume in the vicinity of the Smithville PCB Site, and MECP approval requirements.
5. Optimal in-service date for Stage 1 area based on Option 3 interim solution.
6. Opportunity to coordinate with other planned infrastructure (future road upgrades).

Based on the above, it has been confirmed that the new sanitary pumping station and associated linear works is exempt if approved under the Planning Act, whilst also recognizing that all linear works (i.e. forcemains) will be constructed in existing road allowances or part of a plan of subdivision.

Moving forward it is recommended that the Township work with the affected landowners to confirm how the new SPS is integrated within the plan of subdivision(s) and in accordance with the Region's current SPS policy. A Notice of MCP North Area Wastewater Servicing Strategy Update (as described below) will be issued to the MCP contact list. The Notice will describe the revised wastewater serving strategy and note that the project is Exempt from the Environmental Assessment Act (no opportunity for submitting a Section 16 Order Request, which only applies to Indigenous communities).

The Region will then capture the projects in its upcoming Development Charges Background Study and By-Law in addition to its capital works planning budget for the preliminary design and detailed design phases in addition to the later construction contract tender and award process.

The Township will also update its Development Charges Background Study and By-Law, in addition to its Water and Wastewater Master Servicing Plan and Capital Budget Forecast.

Attachment:

Attachment A, March 17, 2025, Smithville MCP Stage 1 Wastewater Servicing Strategy Technical Memorandum

Attachment B, March 17, 2025, Smithville MCP Potential Impacts and Mitigation Measures

Attachment C, North Area Wastewater Servicing Strategy Update Consultation

C1: Notification Contact List

C2: Landowner Group Meetings

C3: Affected Property Owner Confirmation

C4: Notice of North Area Wastewater Servicing Strategy Update