



Municipalité de
RUSSELL
Township



WELCOME

Schedule C Class Environmental Assessment Study for the Consolidated Mechanical Wastewater Treatment Plant

Public Information Centre

Tuesday, September 29th, 2026

6:00 pm to 8:00 pm

Location: Council Chambers, Township of Russell Office

Key Instructions for this Meeting

Public Information Centre

1

Please Sign in
Meeting is a “Drop-in” format.

2

Review Display Materials
Our representatives will be pleased to discuss the study, or any questions or concerns that you may have.

3

Complete a Comment Sheet
Drop off your completed Comment Sheet in the Box tonight or return it to the people shown on the Comment Sheet by October 30, 2026.

Why are we here tonight?

The Township of Russell, in coordination with The Nation Municipality, is undertaking a **Schedule C Municipal Class Environmental Assessment (Class EA) Study** to select the preferred alternative to meet future wastewater treatment demands in the communities of Embrun, Russell, and Limoges.

Objectives of this **Public Information Centre**:



Introduce the project and its background.



Present alternative options considered for increasing the wastewater treatment capacity in the communities of Embrun, Russell, and Limoges, and provide preliminary recommendations.



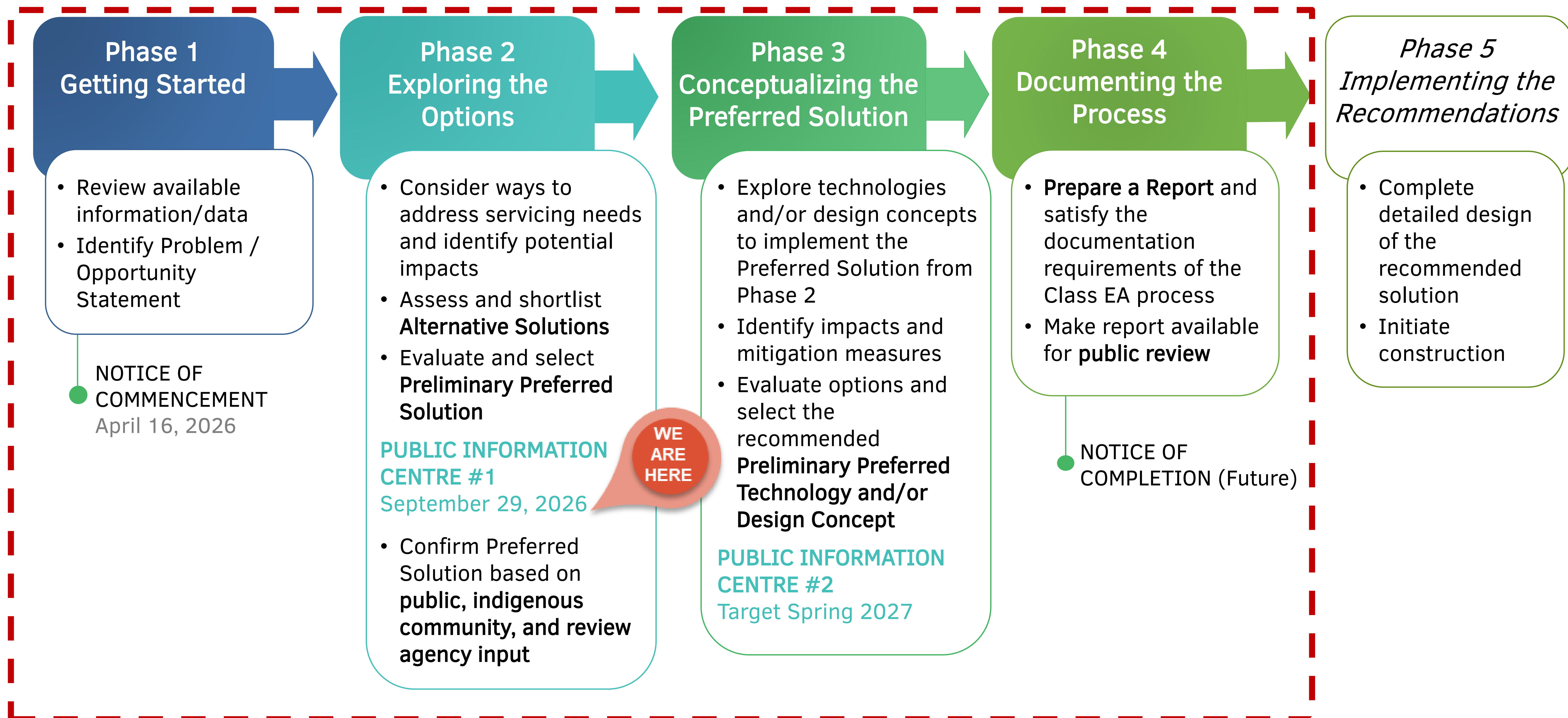
Receive comments from the public about the preliminary preferred alternative chosen from the recommendations.

Class EA Context

- The Class EA process meets the **Ontario's Environmental Assessment Act (EAA)** by identifying problems or opportunities, and identifying, evaluating and selecting a preferred means of addressing the problems or opportunities.
- A Class EA study enables the planning and implementation of municipal infrastructure in accordance with an approved procedure designed to protect the environment.
- **Schedule C Class EA** projects have the potential for more significant environmental impacts. Municipalities are required to prepare an **Environmental Study Report (ESR)** for **Schedule C Class EA** projects for review by the public, Indigenous Communities, and review agencies.
- This Class EA study will expand on the **Master Plans recently completed by the Township of Russell and The Nation Municipality**, which determined that Embrun's, Russell's, and Limoges' existing lagoon-based treatment plants are insufficient to service anticipated growth in the villages while achieving high-quality effluent.

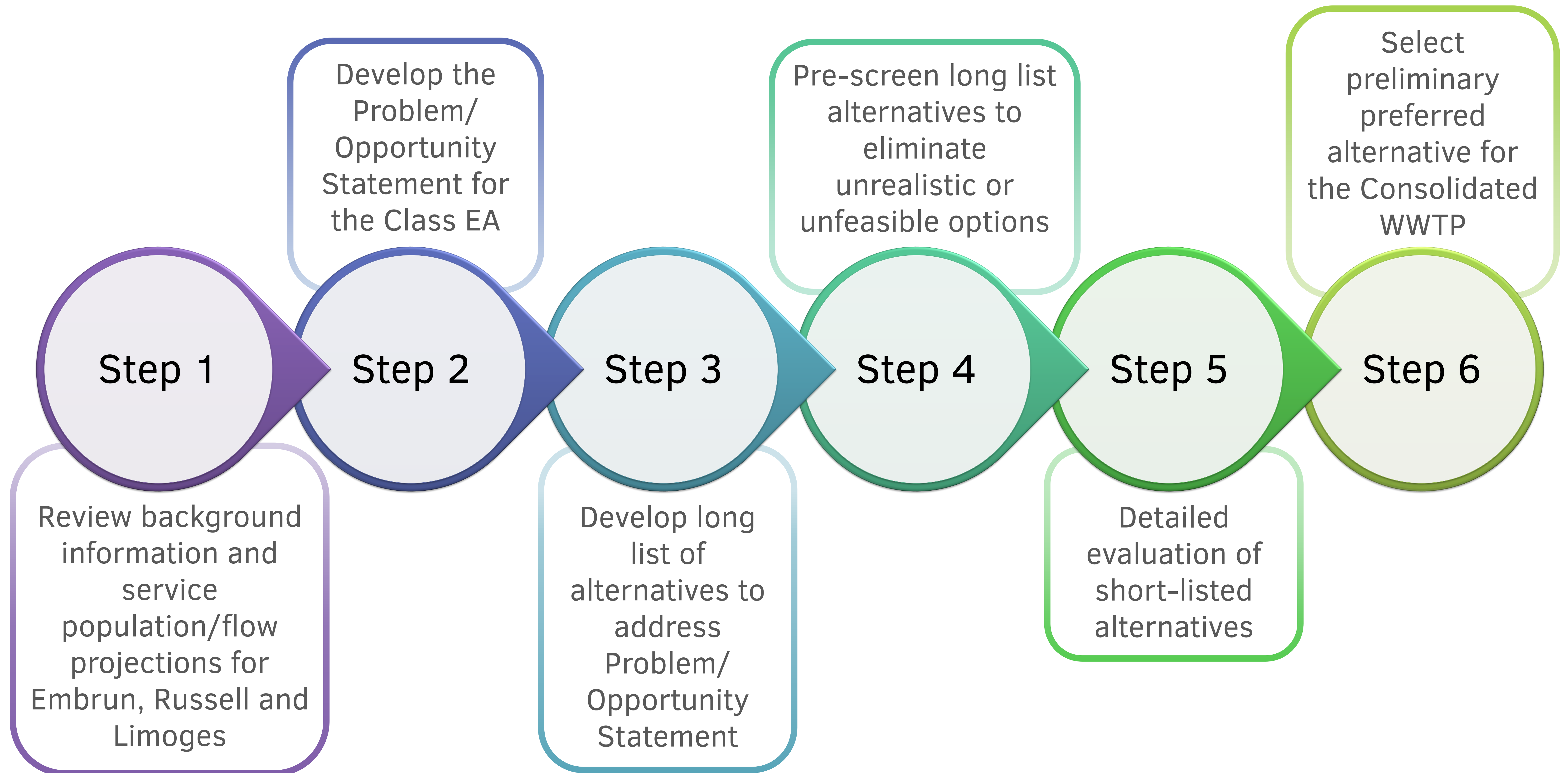


Class EA Process



Phases 1, 2, 3 and 4 of the Class EA Process will be completed during the Class EA.

Process for Phase 1 & 2 of the Class EA



How is wastewater currently treated?

Russell and Embrun Wastewater Treatment Lagoons (WWTLs):

Raw Wastewater Influent

Wastewater is pumped to the treatment lagoons.

Lagoon Treatment

The longer retention period allows the lagoons to biologically treat organic matter, ammonia, phosphorus, and suspended solids.

Discharge to the Castor River

Treated effluent is discharged to the Castor River.



Existing Russell WWTL



Existing Embrun WWTL

Limoges Wastewater Treatment Plant (WWTP):

Raw Wastewater Influent

Wastewater is pumped to the treatment plant.

Headworks

Rags, grit and large objects are removed.

Lagoon Treatment with BioCord™ units

Biologically treats organic matter, and reduces nutrients

Tertiary Filtration

Greatly reduces suspended solids and phosphorous

UV Disinfection

Eliminates pathogens using ultraviolet (UV) light.

Discharge to the Castor River

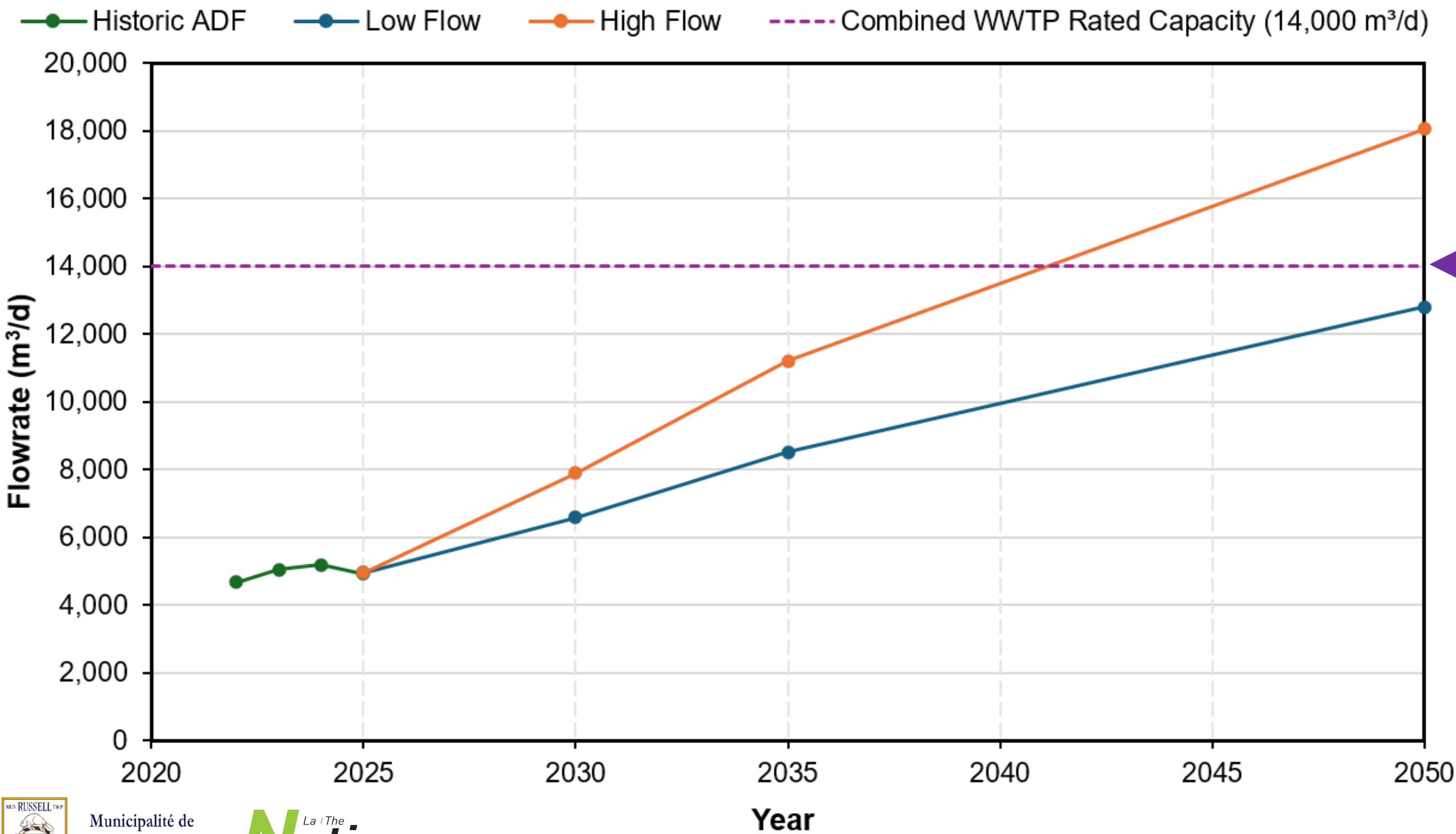
Treated effluent is discharged to the Castor River.



Existing Limoges WWTP

Existing and Future Conditions

Planning Period	Russell Avg. Day Flow (m³/d)	Embrun Avg. Day Flow (m³/d)	Limoges Avg. Day Flow (m³/d)	Consolidated WWTP Avg. Day Flow (m³/d)	Consolidated WWTP Peak Day Flow (m³/d)
Existing Rated Capacity (m³/d)	2,675	3,865	3,500	–	–
Existing Conditions (2025)	1,408	2,164	1,381	4,954	12,369
Short-Term (2025-2030)	1,837	2,817	2,110	6,763	16,908
Mid-Term (2030-2035)	2,265	3,469	2,838	8,572	21,431
Long-Term (2035-2050)	3,550	5,426	5,024	14,000	35,000

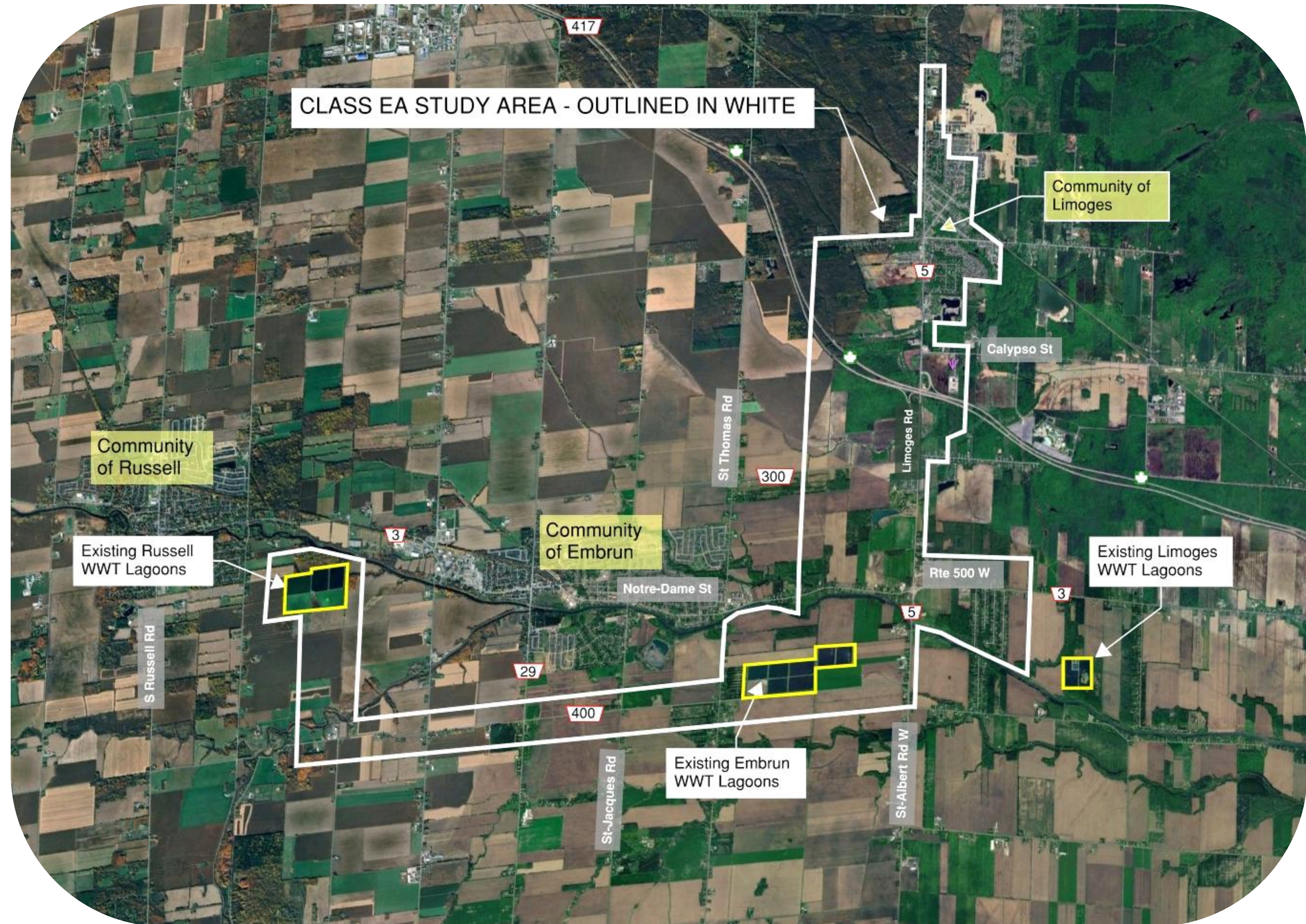


- Due to existing operational challenges at the Embrun and Russell WWTLs, storage limitations are anticipated when influent flows reach 80% of the rated capacity of the two facilities. In addition, both facilities are projected to exceed their existing rated capacities within the planning period.
- Limoges WWTP is experiencing ongoing issues with meeting effluent limits and will also exceed its existing rated capacity before 2050.
- In summary, all three facilities require critical upgrades in the short-term to meet compliance with effluent limit requirements, and in the mid-term to accommodate growth.

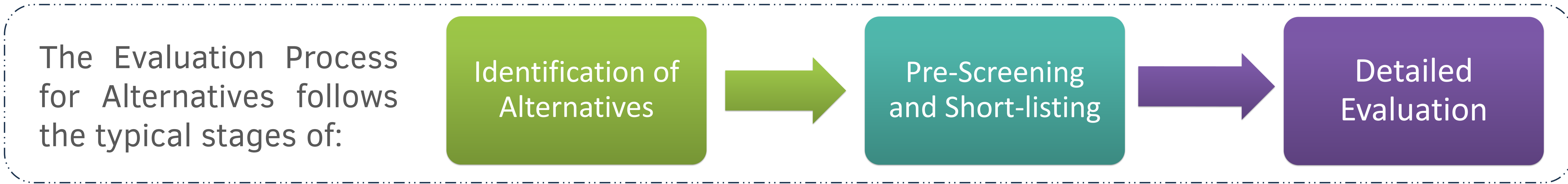
Problem/Opportunity Statement

Embrun's, Russell's, and Limoges' existing lagoon-based wastewater treatment systems require significant upgrades to meet current effluent limits, and are also insufficient to service anticipated growth in each community in the mid-term planning horizon.

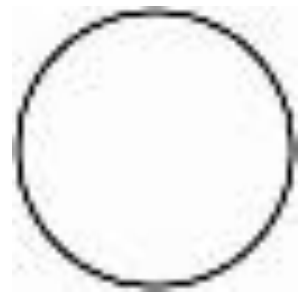
A new, consolidated WWTP provides an opportunity for reliable, efficient, and improved wastewater treatment for the three communities with a regional servicing approach.



Evaluation Scoring



Alternatives were assessed relative to each other and assigned a score for each evaluation category based on feasibility, complexity and other applicable aspects. Scores were assigned based on the following scoring approach:

				
Scores according to the evaluation criteria are very low. The losses are far greater than the gains.	Scores according to the evaluation criteria are low. Implementation would require extensive mitigation measures to reduce impacts.	Scores according to the evaluation criteria are moderate. The gains are on par with the losses.	Scores according to the evaluation criteria are moderately high, with some drawbacks. The gains outweigh the losses.	Scores according to the evaluation criteria are relatively high. Good feasibility, low complexity and provides a viable solution.

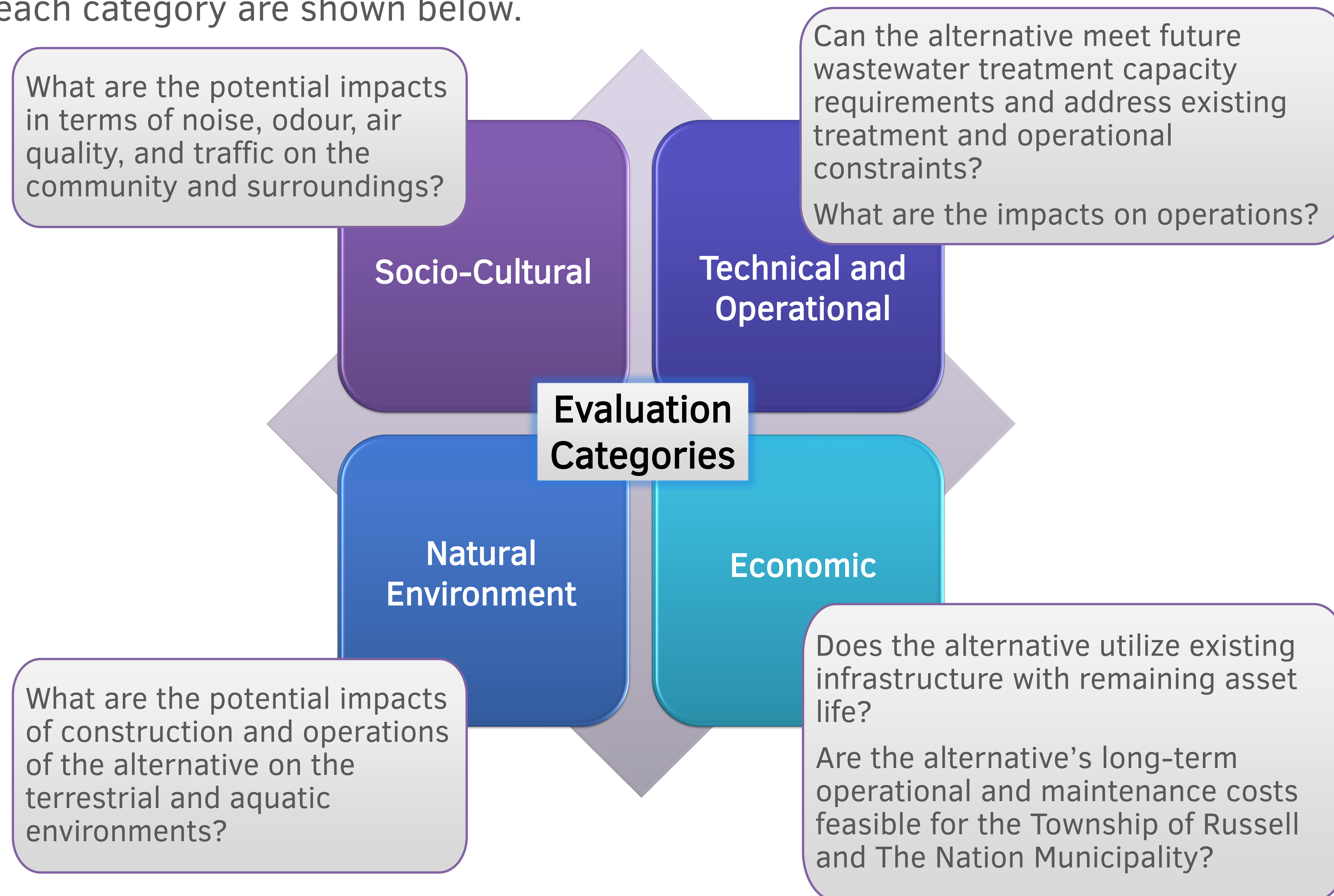


Long List of Alternatives – Pre-Screening

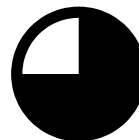
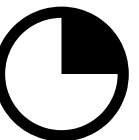
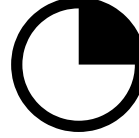
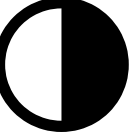
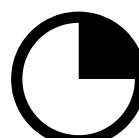
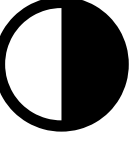
No.	Alternative Servicing Strategy	Pre-Screening Assessment	Shortlisted
1	Do Nothing	- Does not address existing treatment limitations of the systems in the three communities. - All three facilities will fail to service predicted population growth, and increased wastewater flows within the planning period.	No
2	Limit Growth	- Limiting community growth is inconsistent with the Township's and the Nation's objectives and planning initiatives. - Does not address existing limitations of the existing treatment systems.	No
3	Expand all three existing WWTL	- The capacity of each of the three WWTL can be upgraded through facility expansions, to accommodate increased wastewater flows and address existing plant limitations. This was recently explored in the Township's and Nation's respective Master Plans. - No land acquisition or rerouting of sewage collection networks required. - Tertiary-level treatment will be required for each plant, adding cost and complexity. - The alternative is feasible and will be evaluated further.	Yes
4	Build a new Consolidated WWTP at an existing WWTL site	- New plant will accommodate growth and meet future effluent quality requirements. - No land acquisition required and rerouting of sewage collection networks can be minimized. - Wastewater treatment operations can be consolidated at one facility. - The alternative is feasible and will be evaluated further, for each site among the three wastewater lagoon facilities.	Yes
5	Build a new Consolidated WWTP at a new site	- New plant at a new location can be constructed for use by both the Township and the Nation to accommodate growth and meet future effluent quality requirements. - Significant costs anticipated due to land acquisition, extensive rerouting of existing collection networks, extensive new supporting studies, and new outfall. - Alternative is financially impractical due to high costs and will not be evaluated further.	No
6	Send wastewater (export) to other systems for treatment	Wastewater conveyance to the nearest WWTPs make this option impractical and unfeasible, since there is no facility in reasonable proximity to accept wastewater, especially of this volume.	No
7	Decentralized wastewater systems for new developments	- Likely limits growth → inconsistent with the Township's and the Nation's objectives and planning initiatives. - Does not address existing limitations (effluent quality) or provide required additional capacity.	No

Evaluation Categories

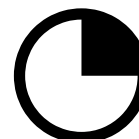
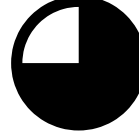
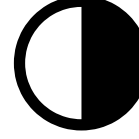
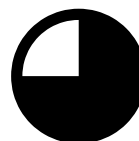
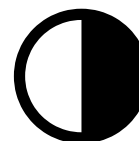
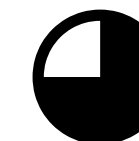
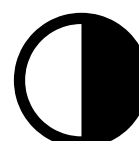
The project team established four (4) evaluation categories (Socio-cultural, Technical and Operational, Natural Environment, and Economic) to evaluate the impacts and benefits of each short-listed alternative relative to each other. Examples of the questions which were asked to evaluate each alternative's impact or benefit within each category are shown below.



Comparison of Alternatives

Rating Consideration	Alternative 3 - Expand all three existing WWTLs		Alternative 4.1 - Build a new Consolidated WWTP at Russell WWTL site	
Socio-Cultural	• Highest impact of disturbance to the surrounding, during construction → Large land area disturbance will be required for expansion, at each of the three facilities. • High impacts from air, noise and vibration anticipated from construction activities required for new construction area preparation, at each of the three facilities. • Increase in truck traffic from operations (higher noise and air emissions) at all three facilities.		• Some impacts due to construction of a new plant, but impacts are primarily anticipated only during construction. • Some increase in truck traffic during operations (higher noise and air emissions). • Likely increased traffic disturbance along the forcemain routing during construction, for implementation of increased length of wastewater forcemains from Embrun and Limoges to Russell.	
Technical and Operational	• No wastewater collection system re-routing required. • Greatest footprint requirements, due to expansion at all three sites. • Highest extent of site preparation required. • Separate tertiary treatment will likely be required for each facility, increased complexity and costs. • Highest operational and maintenance requirements and staffing needs due to maintaining operations, compliance and reporting at all three facilities.		• Consolidated treatment at one site reduces operational and maintenance complexity & staffing needs compared to Alternative 3. • Taking one lagoon offline will be more hydraulically complex at the Russell WWTL, to maintain treatment, compared to Alternative 4.2. • Highest pumping requirements for routing flow from Limoges and Embrun to Russell → extensive piping distances and increased flows to convey.	
Natural Environment	• No impacts expected on water quality and species at risk. • Higher air emissions from concrete during construction. • Higher extent of terrestrial disturbance, due to construction at three different locations.		• No impacts expected on water quality and species at risk. • Some air emissions from concrete during construction. • Lower extent of terrestrial disturbance compared to Alternative 3. • No requirement for tree removal at the Russell WWTL.	
Economic	• Highest cost burdens, due to extent of construction and investment in equipment required. • Highest operational and maintenance costs, due to operations of three facilities.		• Lower capital investment compared to Alternative 3, but higher capital costs anticipated than Alternative 4.2 and 4.3. • Comparable operational and maintenance costs to Alternatives 4.2 and 4.3.	
Ranking	Least Preferred		Less Preferred	

Comparison of Alternatives

Rating Consideration	Alternative 4.2 - Build a new Consolidated WWTP at Embrun WWTL site		Alternative 4.3 - Build a new Consolidated WWTP at Limoges WWTP site	
Socio-Cultural	- Some impacts due to construction of a new plant, but impacts are primarily anticipated only during construction. - Some increase in truck traffic during operations (higher noise and air emissions). - Likely increased traffic disturbance along the forcemain routing during construction, for implementation of increased length of wastewater forcemains from Russell and Limoges to Embrun. - Existing Embrun site has occasional odours, which will be addressed through the new Consolidated WWTP.		- Some impacts due to construction of a new plant, but impacts are primarily anticipated only during construction. - Some increase in truck traffic during operations (higher noise and air emissions). - Likely increased traffic disturbance along the forcemain routing during construction, for implementation of increased length of wastewater forcemains from Embrun and Russell to Limoges.	
Technical and Operational	- Consolidated treatment at one site reduces operational and maintenance complexity & staffing needs compared to Alternative 3. - Space available for new WWTP to be constructed in an existing lagoon on the Embrun site. - Since Embrun has the largest projected population compared to Russell and Limoges and the central location between the three villages, wastewater pumping and conveyance requirements are minimized. - Outfall is sufficiently sized for the regional facility		- Consolidated treatment at one site reduces operational and maintenance complexity & staffing needs compared to Alternative 3. - Space available for new WWTP to be constructed within site footprint at Limoges WWTP site. - Significant pumping requirements for routing flow from Embrun and Russell to Limoges → extensive piping distances and increased flows to convey. - Outfall will likely require additional studies and has lower available capacity compared to Russell and Embrun.	
Natural Environment	- No impacts expected on water quality and species at risk. - Some air emissions from concrete during construction. - Lower extent of terrestrial disturbance compared to Alternative 3. - No requirement of tree removal at the Embrun WWTL.		- No impacts expected on water quality and species at risk. - Some air emissions from concrete during construction. - Lower extent of terrestrial disturbance compared to Alternative 3, however, higher than Alternatives 4.1 and 4.2. - Tree/scrub removal may be required at the Limoges WWTP.	
Economic	- Lowest capital investment compared to all other feasible alternatives due to wastewater pumping and conveyance requirements being minimized. - Comparable operational and maintenance costs to Alternatives 4.1 and 4.3.		- Lower capital investment compared to Alternative 3 and 4.1, but higher capital costs anticipated than Alternative 4.2. - Comparable operational and maintenance costs to Alternatives 4.1 and 4.2.	
Ranking	Most Preferred		Less Preferred	

Summary of Evaluation Results

The preliminary preferred alternative is:

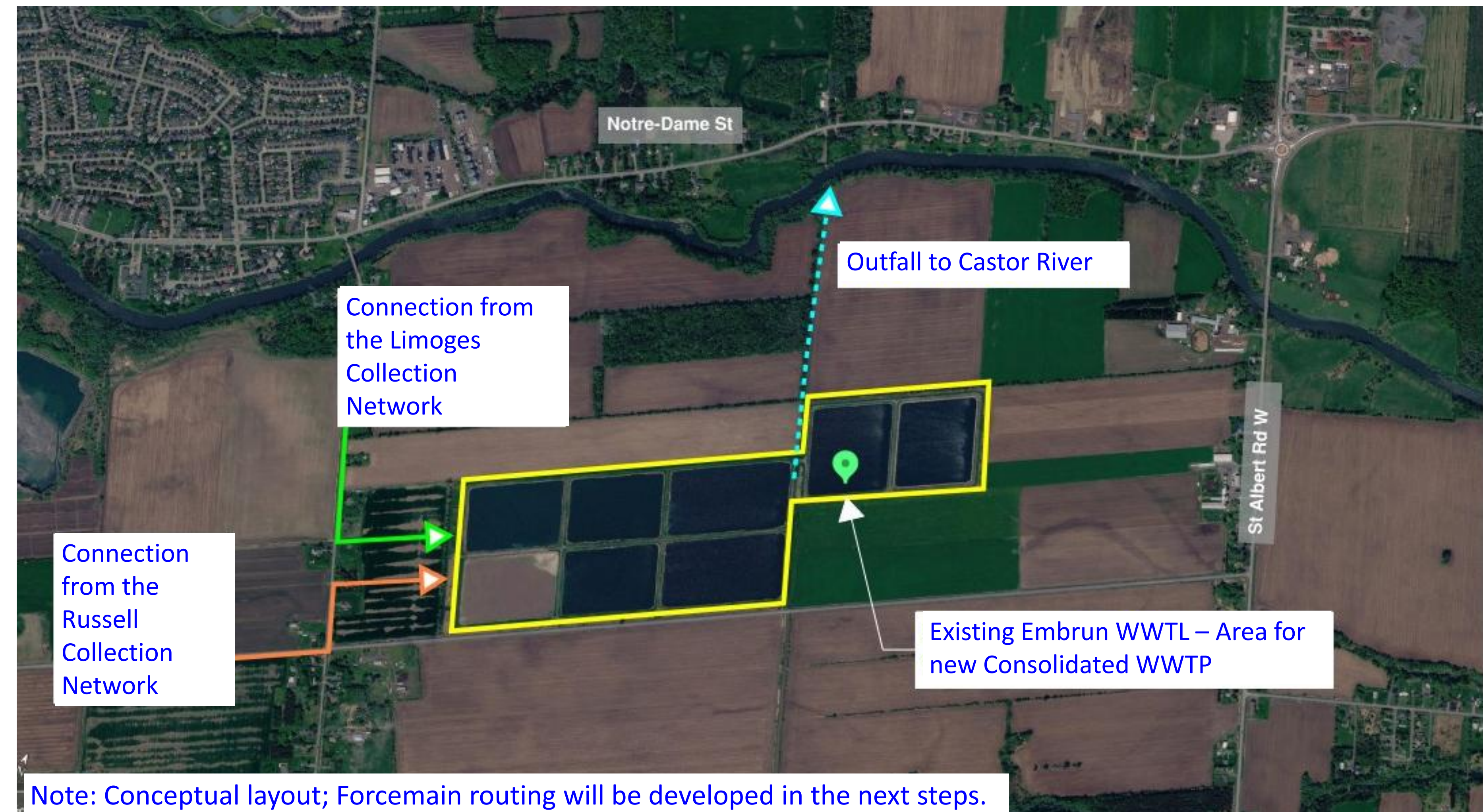
Alternative 4.2 – Build a new Consolidated WWTP at the Embrun WWTL site

The key advantages of this alternative as compared to other short-listed alternatives include:

- ❖ Minimal noise and air quality impacts, and addresses existing occasional odours at the Embrun WWTL
- ❖ Maximizes use of existing land and infrastructure,
- ❖ Most optimum changes to existing sewer collection networks for a consolidated facility
- ❖ Minimizes overall required wastewater pumping and conveyance requirements compared to the other consolidated WWTP alternatives considered
- ❖ Minimal impacts on the surrounding natural environment, and
- ❖ Lowest estimated capital, and operational and maintenance costs across all alternatives considered.

Additional Consideration:

- ❖ New sewage pumping stations will be required in Russell and Limoges, in order to direct wastewater flows to the new Consolidated WWTP at the existing Embrun WWTL site. The new sewage pumping stations' locations and forcemain routings should minimize overall socio-cultural, technical and operational, natural environment, and economic impacts.



Assimilative Capacity Study (ACS)

- An Assimilative Capacity Study (ACS) was completed to:
 - Review the Castor River's ability to accept the increased treated effluent volumes based on future projections,
 - Review discharge scenarios to maintain health of the Castor River and accommodate growth, and
 - Recommend new effluent limits based on regulations, inputs from regulatory authorities, and the Castor River's characteristics (i.e. flow & background concentrations).
- The Township has proactively engaged in an ACS to protect the long-term aquatic health and water quality of the Castor River.
- The outcome of the ACS will inform the proposed Consolidated WWTP's wastewater effluent regulations and steer capital planning for the new plant.

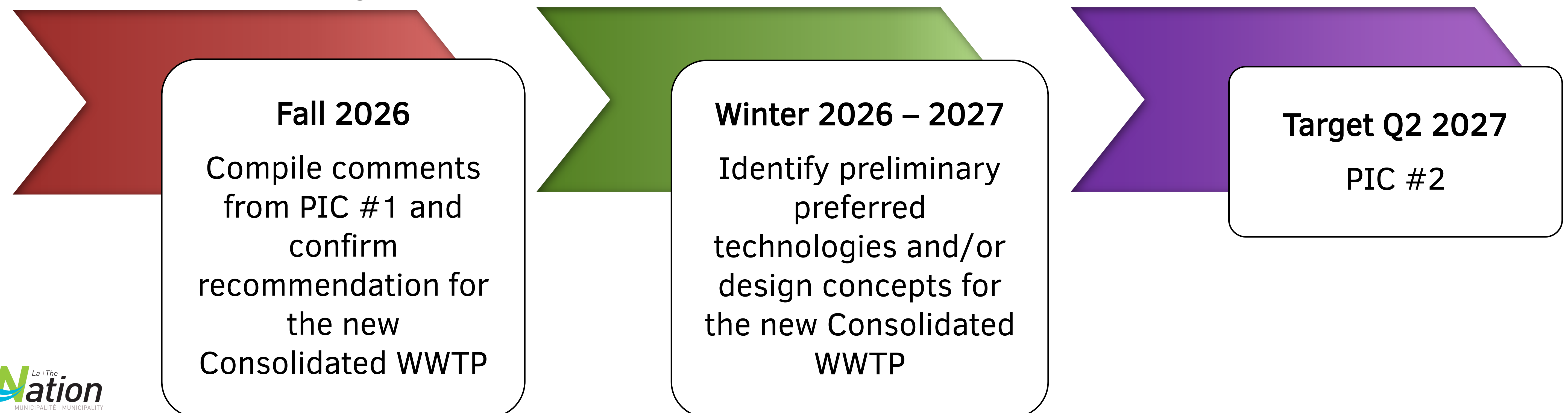


The Castor River

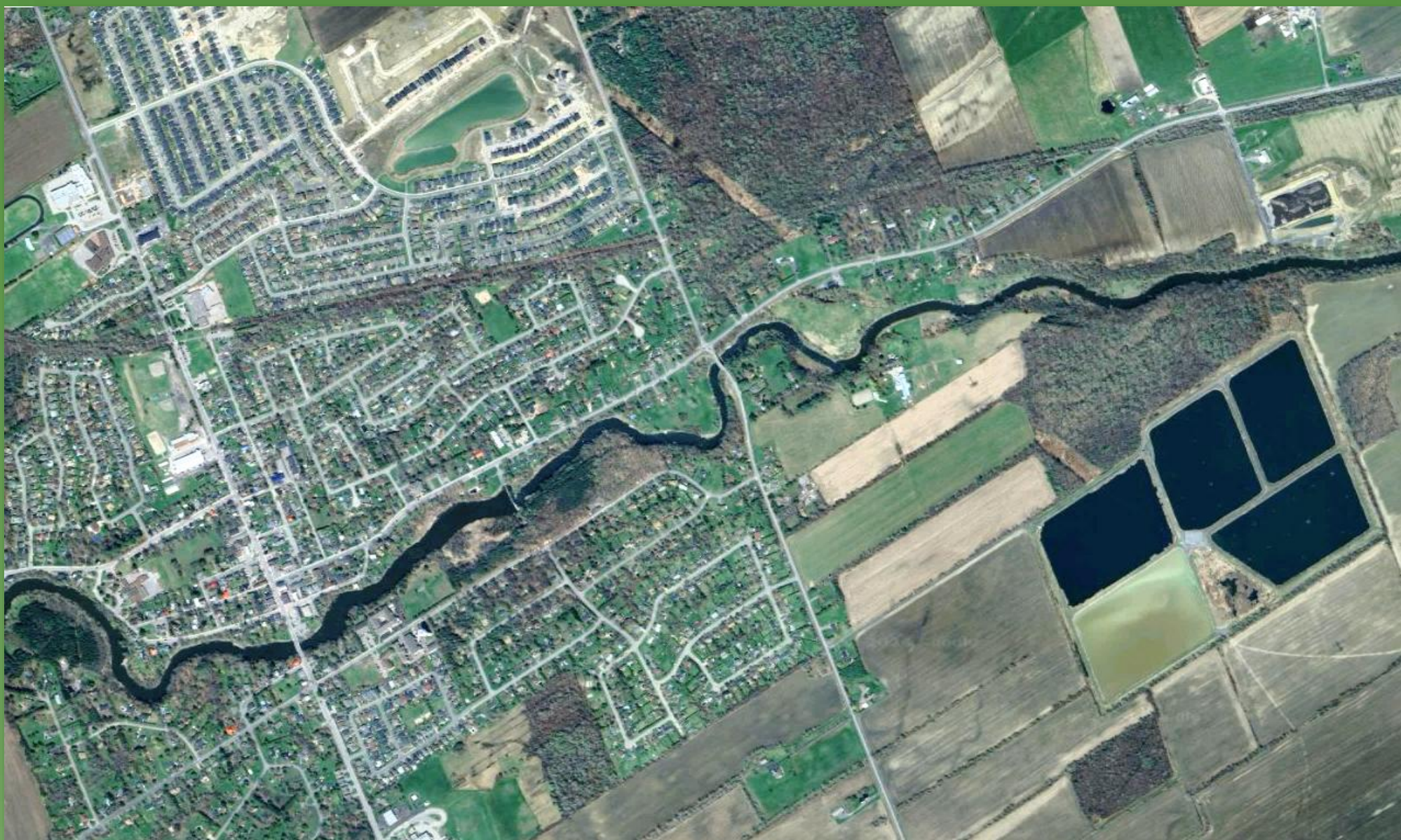
What are the next steps?

After this Public Information Centre (PIC1), the project team will:

- Review and consider inputs received during this PIC to confirm the preliminary preferred alternative presented tonight for the new Consolidated WWTP.
- Develop and pre-screen a long-list of technologies and/or design concepts for the new Consolidated WWTP.
- Evaluate short-listed technologies and/or design concepts to identify preliminary preferred technologies and/or design concepts for the new Consolidated WWTP.
- Present forcemain routing, preliminary preferred technologies and/or design concepts for the new Consolidated WWTP at PIC #2 to receive comments from the public, indigenous communities, review agencies and other stakeholders.



Next Steps & Comments



Questions or comments?

Should you have any questions about this presentation or the project, please fill out a comment sheet tonight or contact:



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Please provide your comments and questions
by October 30, 2026.