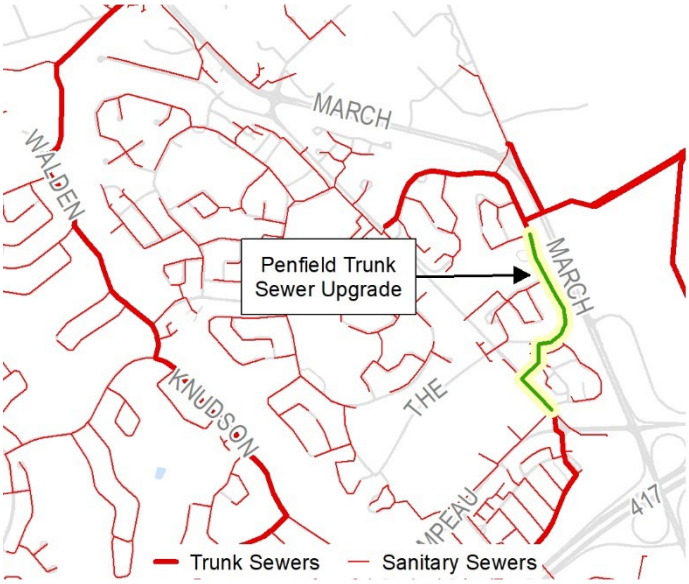
Appendix F – Wastewater Project Sheets

Penfield Trunk Sewer Upgrade



PROJECT RATIONALE

What: The Penfield Trunk upgrade consists of approximately 1 kilometre of sewer upsized from 675mm to 900mm diameter.

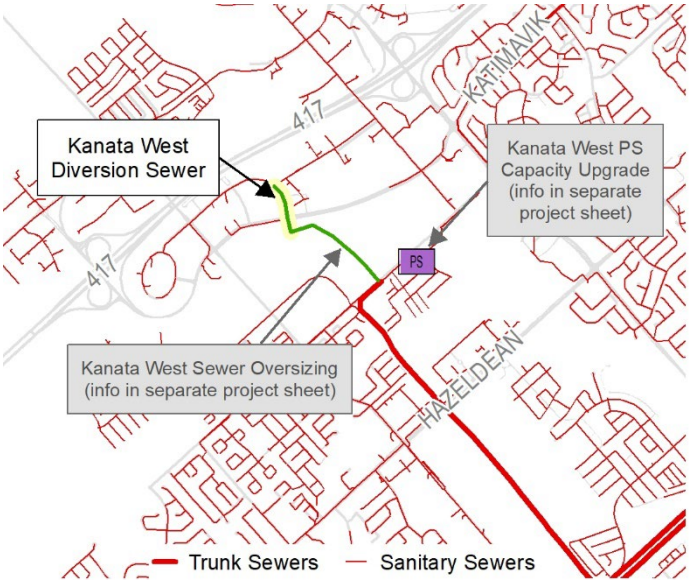
Why: The project is required to redirect growth flows from Signature Ridge PS to the Main Street and the upgraded Penfield Trunk sewer. This project will also support the Kanata Town Centre intensification hub.

PROJECT SCHEDULE	
Budget Authority	2029-2034

PROJECT FUNDING	
Total Capital Estimate	$7.8 M
% Development Charge Funded	95%
% Rate Funded	5%
% Other Source Funded	0%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is exempt from the requirements of the Municipal Engineers Class EA
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Flow monitoring to establish project timelines and confirm pipe size 2. Functional, preliminary, and detailed design 3. Implementation (tender and construction)

Kanata West Diversion Sewer



PROJECT RATIONALE

What: The project includes the construction of a total of 1.1 km of new trunk sewer to direct flow to Kanata West PS from the Signature Ridge PS catchment. This component of the project involves 400 metres of new 450mm diameter sanitary sewer.

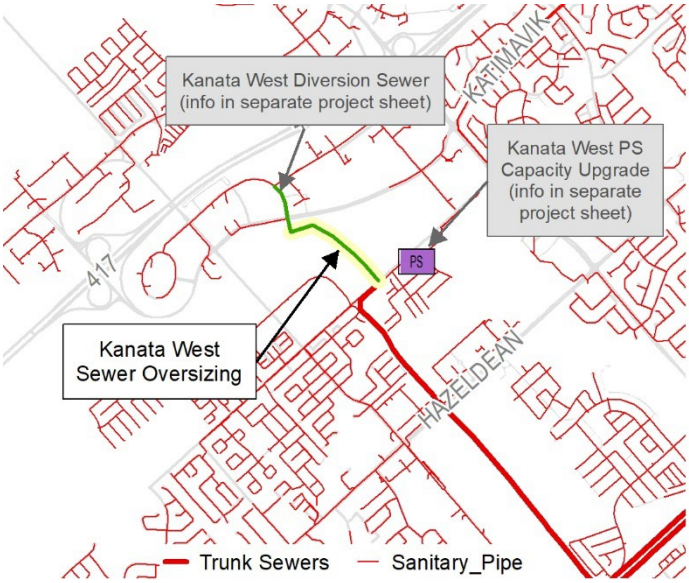
Why: The purpose of this project is to accommodate future development in the Kanata West area and the Palladium intensification hub.

PROJECT SCHEDULE	
Budget Authority	2029-2034

PROJECT FUNDING	
Total Capital Estimate	$3.0 M
% Development Charge Funded	95%
% Rate Funded	5%
% Other Source Funded	0%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is exempt from the requirements of the Municipal Engineers Class EA
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Flow monitoring to refine project timelines and confirm pipe size 2. Coordinate with Kanata West Sewer Oversizing Project 3. Functional, preliminary, and detailed design 4. Implementation (tender and construction)

Kanata West Sewer Oversizing



PROJECT RATIONALE

What: The project includes the construction of a total of 1.1 km of new trunk sewer to direct flow to Kanata West PS from the Signature Ridge Pump Station catchment. This component of the project involves oversizing 700 metres of the new sanitary sewer at 675mm diameter to convey flow to Kanata West Pump Station.

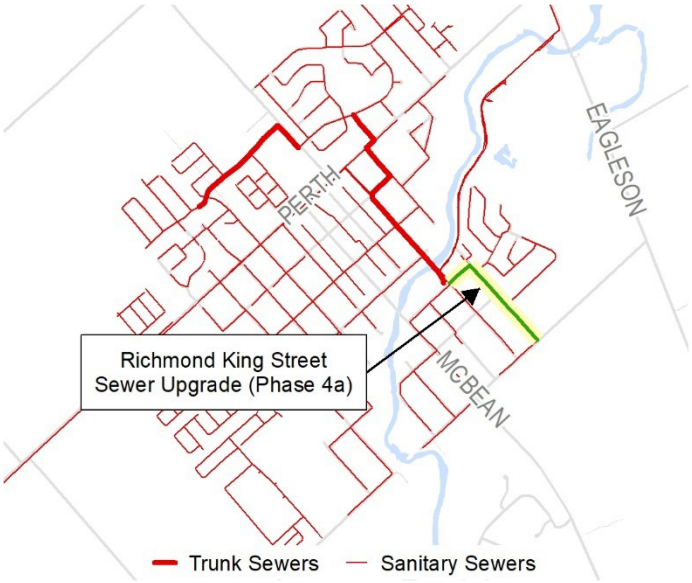
Why: The purpose of this project is to accommodate future development in the Kanata West area and Palladium intensification hub.

PROJECT SCHEDULE	
Budget Authority	**2029-2034**

PROJECT FUNDING	
Total Capital Estimate	**$1.8 M**
% Development Charge Funded	**100%**
% Rate Funded	**0%**
% Other Source Funded	**0%**

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	**Depending on the final alignment, this project may be a Schedule B undertaking or will be exempt under the Municipal Engineers Class EA. Planning Act approvals may be required.**
Follow-up Actions	**The following actions are required to pursue implementation of this project:** **1. Confirm growth timeline for 1655 Maple Grove Road** **2. Design and construction of sewer will be developer-led and included as part of plan of subdivision**

Richmond King Street Sewer Upgrade (Phase 4a)



PROJECT RATIONALE

What: The King Street Sewer will require approximately 700 metres of linear upgrades (diameter ranging from 525mm to 600mm).

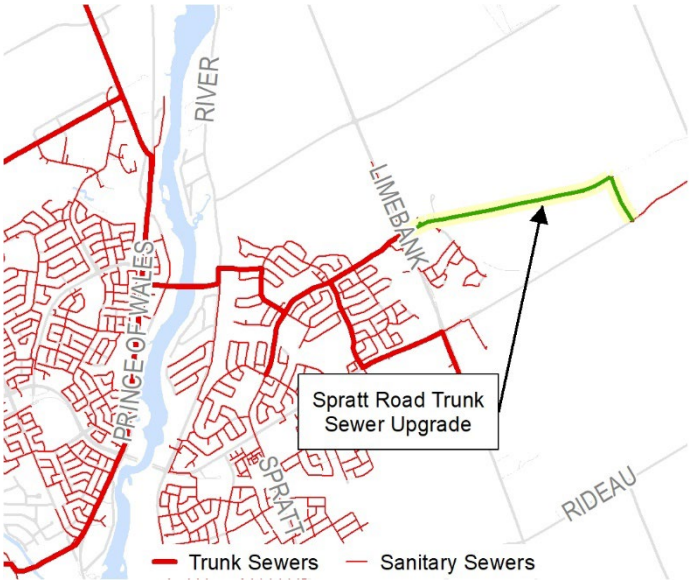
Why: The purpose of this project is to service development in the southeast area of Richmond.

PROJECT SCHEDULE	
Budget Authority	2024-2029

PROJECT FUNDING	
Total Capital Estimate	$6.6 M
% Development Charge Funded	75%
% Rate Funded	25%
% Other Source Funded	0%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is exempt from the requirements of the Municipal Engineers Class EA.
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Confirm timeline for growth in southeast area of Richmond 2. Design and construction of sewer will be developer-led and included as part of plan of subdivision

Spratt Road Trunk Sewer Upgrade



PROJECT RATIONALE

What: This project includes upsizing 950 metres of existing sanitary sewer to 750mm diameter, and approximately 1.5 kilometres of existing sanitary sewer to 900mm diameter.

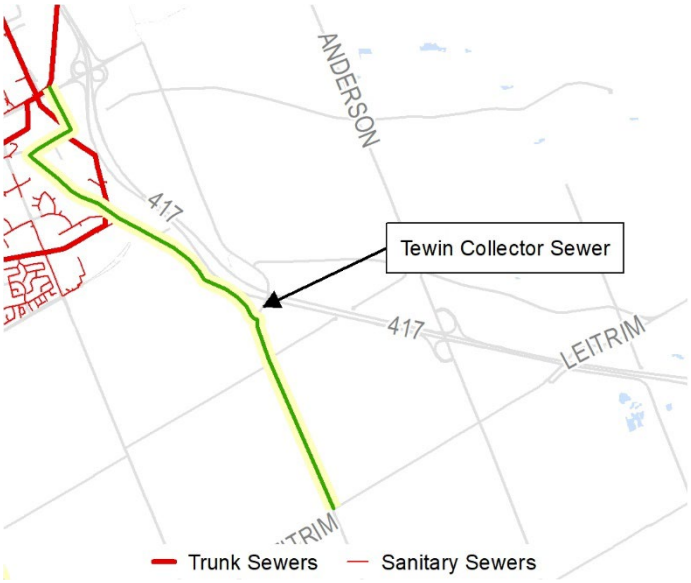
Why: Upsizing is proposed in the Spratt Road Sewer to accommodate significant future growth flow in Riverside South and from the upstream expansion area.

PROJECT SCHEDULE	
Budget Authority	2029-2034

PROJECT FUNDING	
Total Capital Estimate	$13.8 M
% Development Charge Funded	90%
% Rate Funded	5%
% Other Source Funded	5%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is exempt from the requirements of the Municipal Engineers Class EA
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Confirm preferred solution through Master Servicing Study for upstream expansion area 2. Flow monitoring in downstream network to confirm available capacity 3. Functional, preliminary, and detailed design 4. Implementation (tender and construction)

Tewin Collector Sewer



PROJECT RATIONALE

What: A new trunk sewer with a total length of approximately 8.5km will be required to convey future wastewater flows from the Tewin expansion area. It is recommended to oversize the new Tewin collector trunk sewer at 1500mm, which is the appropriate size to convey all 2046 and estimated long term population growth.

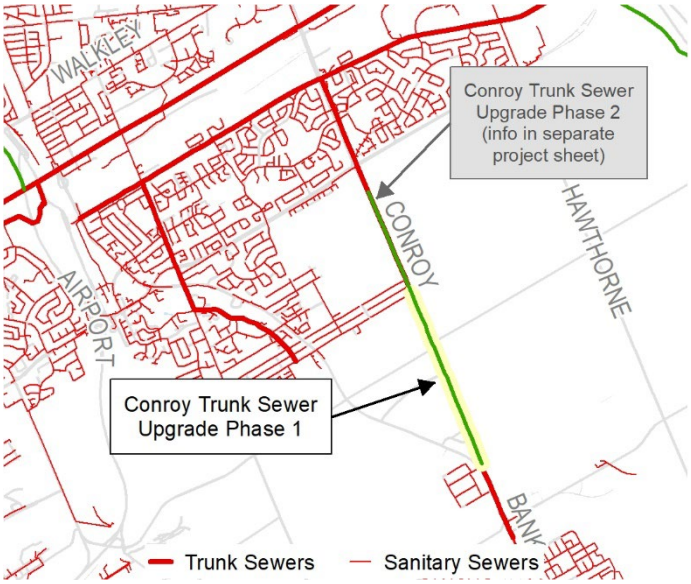
Why: The purpose of this project is to accommodate future wastewater flows from the Tewin expansion area. Sizing for this project was originally determined to be 750mm based on 2046 population growth demands. However, it was noted that there will be substantial post period growth within the Tewin community as well as in the areas surrounding Tewin.

PROJECT SCHEDULE	
Budget Authority	2029-2034

PROJECT FUNDING	
Total Capital Estimate	$205.4 M
% Development Charge Funded	77.5%
% Rate Funded	0%
% Other Source Funded	22.5%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project will be a Type B under the Municipal Engineers Class EA. A Federal Impact Assessment approval may also be required.
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Confirm preferred alignment and service area through the EA process 2. Functional, preliminary, and detailed design 3. Implementation (tender and construction)

Conroy Trunk Sewer Upgrade Phase 1



PROJECT RATIONALE

What: The first phase of the Conroy Trunk Sewer Upgrade project includes the upsizing of nearly 2 kilometres of sanitary sewer (861 metres at 750mm, and 1.1 kilometres at 900mm).

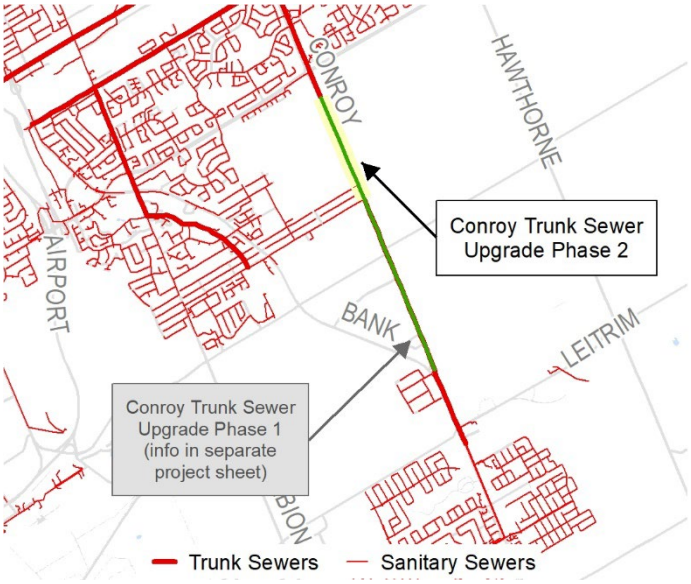
Why: The purpose of this project is to mitigate existing surcharging issues and service 2046 growth including expansion areas serviced by the Leitrim PS.

PROJECT SCHEDULE	
Budget Authority	2029-2034

PROJECT FUNDING	
Total Capital Estimate	$12.3 M
% Development Charge Funded	90%
% Rate Funded	5%
% Other Source Funded	5%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is exempt from the requirements of the Municipal Engineers Class EA
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Monitor flows at the Leitrim PS and Conroy Road trunk sewer to refine project timeline 2. Functional, preliminary, and detailed design 3. Implementation (tender and construction)

Conroy Trunk Sewer Upgrade Phase 2



PROJECT RATIONALE

What: The second phase of the Conroy Trunk Sewer Upgrade project includes the upsizing of approximately 1.2 kilometres of sanitary sewer to a diameter of 900mm.

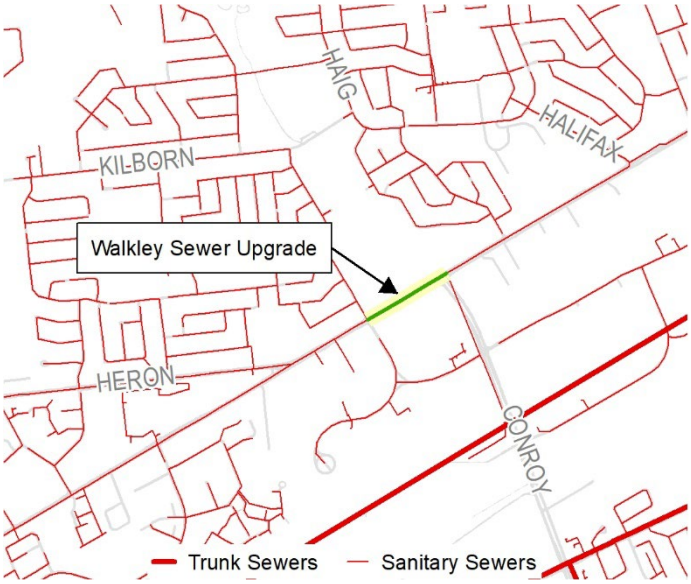
Why: The purpose of this project is to increase capacity to accommodate growth in Leitrim South.

PROJECT SCHEDULE	
Budget Authority	2029-2034

PROJECT FUNDING	
Total Capital Estimate	$8.8 M
% Development Charge Funded	90%
% Rate Funded	5%
% Other Source Funded	5%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is exempt from the requirements of the Municipal Engineers Class EA
Follow-up Actions	1. The following actions are required to pursue implementation of this project: 2. Flow monitoring 3. Functional, preliminary and detailed design 4. Implementation (tender and construction)

Walkley Sewer Upgrade



PROJECT RATIONALE

What: Two segments of existing sewer along Walkley Road will be upsized (370 metres at 600mm diameter).

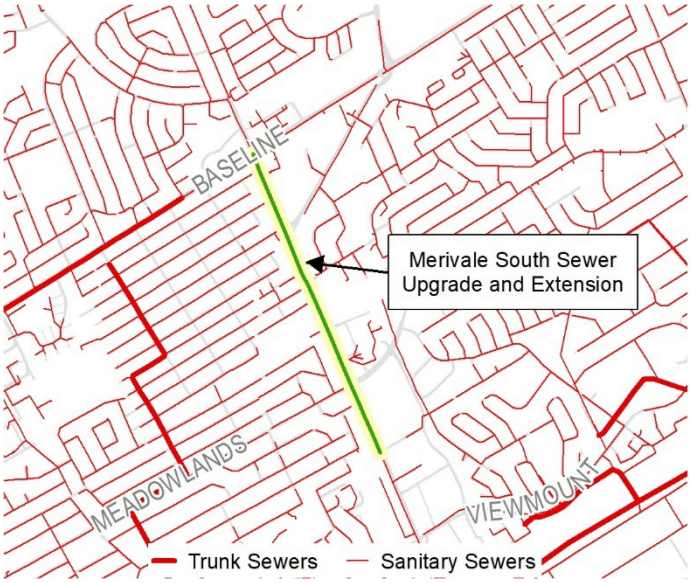
Why: The purpose of this project is to facilitate upstream intensification.

PROJECT SCHEDULE	
Budget Authority	2034-2039

PROJECT FUNDING	
Total Capital Estimate	$2.7 M
% Development Charge Funded	95%
% Rate Funded	5%
% Other Source Funded	0%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is exempt from the requirements of the Municipal Engineers Class EA
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Confirm growth timeline for intensification 2. Functional, preliminary, and detailed design 3. Implementation (tender and construction)

Merivale South Sewer Upgrade and Extension



PROJECT RATIONALE

What: The project includes the construction of a new sewer and an upgrade of an existing sewer (total length of 1.60 km at 600mm diameter) on Merivale Road from Baseline Road to Family Brown Lane.

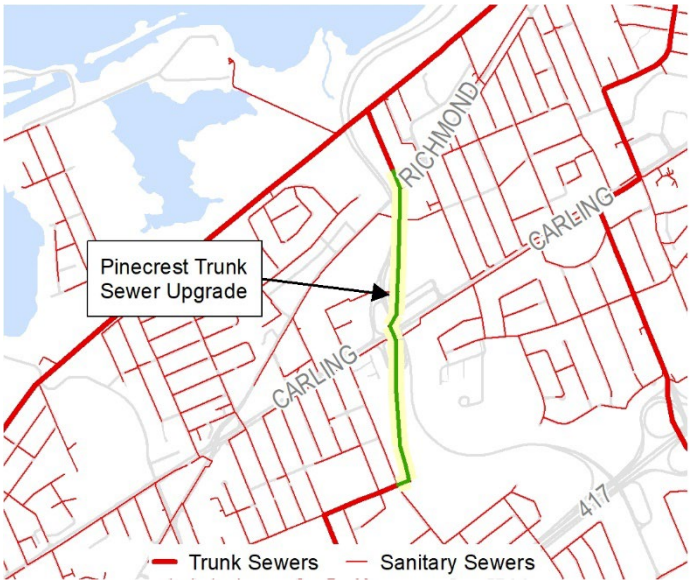
Why: The purpose of this project is to accommodate for the increasing urban development, notably intensification development pressure in the Merivale Road and Clyde Avenue intensification hub and Merivale Road corridor.

PROJECT SCHEDULE	
Budget Authority	2024-2029

PROJECT FUNDING	
Total Capital Estimate	$10.1M
% Development Charge Funded	95%
% Rate Funded	5%
% Other Source Funded	0%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is exempt from the requirements of the Municipal Engineers Class EA
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Confirm growth timeline for intensification 2. Functional, preliminary, and detailed design 3. Implementation (tender and construction)

Pinecrest Trunk Sewer Upgrade



PROJECT RATIONALE

What: Approximately 1.3 kilometres of upsizing to 1050mm diameter is required in the Pinecrest Trunk from Henley Street to Richmond Road.

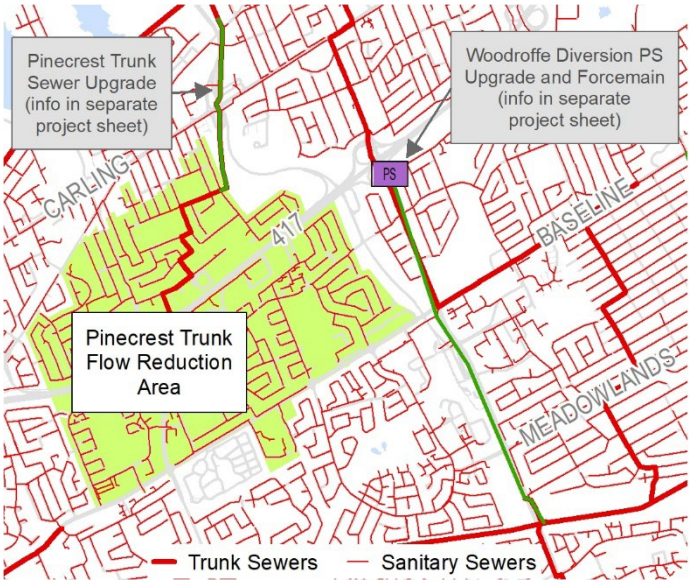
Why: The Pinecrest Trunk is operating at full capacity under existing conditions and will service two high priority upstream intensification hubs (Pinecrest Queensview and Lincoln Fields).

PROJECT SCHEDULE	
Budget Authority	**2029-2034**

PROJECT FUNDING	
Total Capital Estimate	**$11.0 M**
% Development Charge Funded	**95%**
% Rate Funded	**5%**
% Other Source Funded	**0%**

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	**Depending on the final alignment, this project may be a Schedule B undertaking or will be exempt under the Municipal Engineers Class EA.**
Follow-up Actions	**The following actions are required to pursue implementation of this project:** **1. Confirm growth timeline for intensification** **2. Flow monitoring to confirm residual capacity in the Pinecrest Trunk** **3. Functional, preliminary and detailed design** **4. Implementation (tender and construction)**

Pinecrest Trunk Flow Reduction



PROJECT RATIONALE

What: An Inflow & Infiltration flow reduction project has been recommended in the area upstream of the Pinecrest trunk sewer, to minimize the need for pipe upgrades.

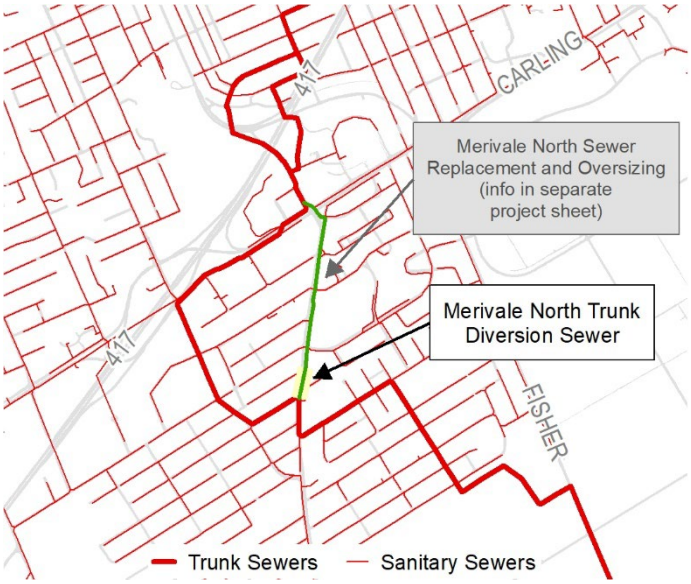
Why: There is substantial planned intensification within the Lincoln Fields and Pinecrest Queensway intensification hubs. Inflow & Infiltration reduction would help to offset increasing wastewater flows from these new developments. This flow reduction project would also be beneficial for the West Nepean Collector by reducing extraneous wet weather flows that are conveyed to the WNC, which has extremely limited capacity. Other alternatives, such as flow diversion to the Lynwood Collector, may be required if targets for inflow and infiltration reduction are not met.

PROJECT SCHEDULE	
Budget Authority	2024-2029

PROJECT FUNDING	
Total Capital Estimate	$5.3 M
% Development Charge Funded	95%
% Rate Funded	5%
% Other Source Funded	0%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is exempt from the requirements of the Municipal Engineers Class EA
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Initiate flow monitoring to characterize flows within study area 2. Identify Inflow & Infiltration sources 3. Initiate flow removal activities 4. Determine if flow removal can create additional capacity that is sufficient to support the Pinecrest-Queensview intensification hub. Explore alternatives for diverting flows to the Lynwood Collector, such as a new diversion PS, if the targets for inflow and infiltration reduction are not met.

Merivale North Diversion Sewer



PROJECT RATIONALE

What: An opportunity was identified to divert additional flow to the Merivale North Sewer and away from the Cave Creek Collector.

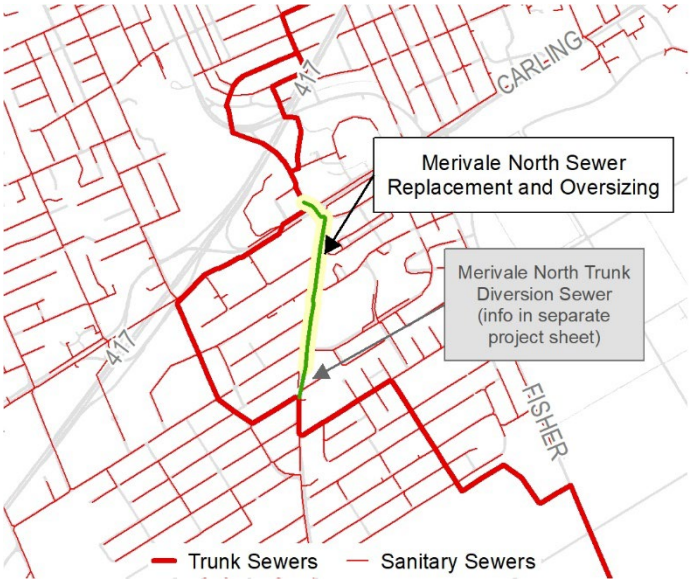
Why: This diversion would eliminate the need for upgrades along the Cave Creek Collector on Carling Ave.

PROJECT SCHEDULE	
Budget Authority	2024-2029

PROJECT FUNDING	
Total Capital Estimate	$1.4 M
% Development Charge Funded	95%
% Rate Funded	5%
% Other Source Funded	0%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is exempt from the requirements of the Municipal Engineers Class EA
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Coordinate diversion sewer with Merivale Road renewal project and the Merivale North Sewer Replacement and Oversizing project 2. Functional, preliminary and detailed design 3. Implementation (tender and construction)

Merivale North Sewer Replacement and Oversizing



PROJECT RATIONALE

What: The existing Merivale North Sewer is due for renewal; therefore, the 700 metres of replacement sewers will be oversized to 750mm in diameter.

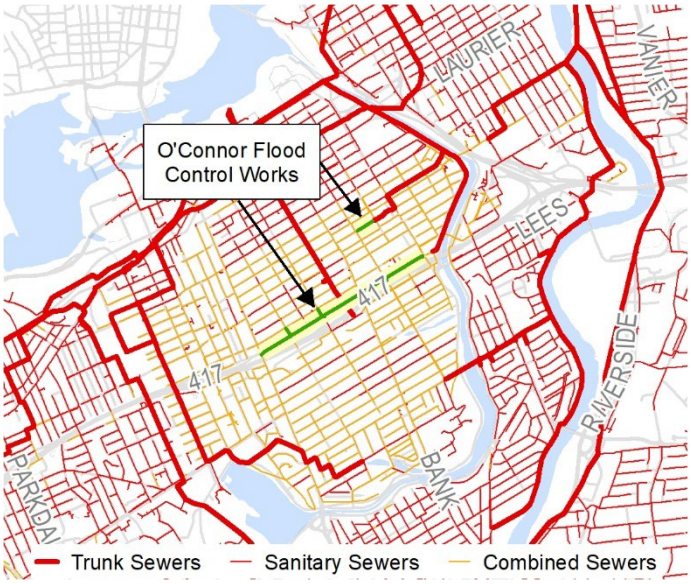
Why: The oversizing of the replacement sewers will provide additional capacity to accommodate intensification growth.

PROJECT SCHEDULE	
Budget Authority	2024-2029

PROJECT FUNDING	
Total Capital Estimate	$4.6 M
% Development Charge Funded	5%
% Rate Funded	95%
% Other Source Funded	0%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is exempt from the requirements of the Municipal Engineers Class EA
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Coordinate with Merivale Road renewal project and the Merivale North Diversion Sewer project 2. Functional, preliminary and detailed design 3. Implementation (tender and construction)

O'Connor Flood Control Works



PROJECT RATIONALE

What: This project involves adding a storage pipe on Catherine Street and upsizing a sewer on Waverley Street.

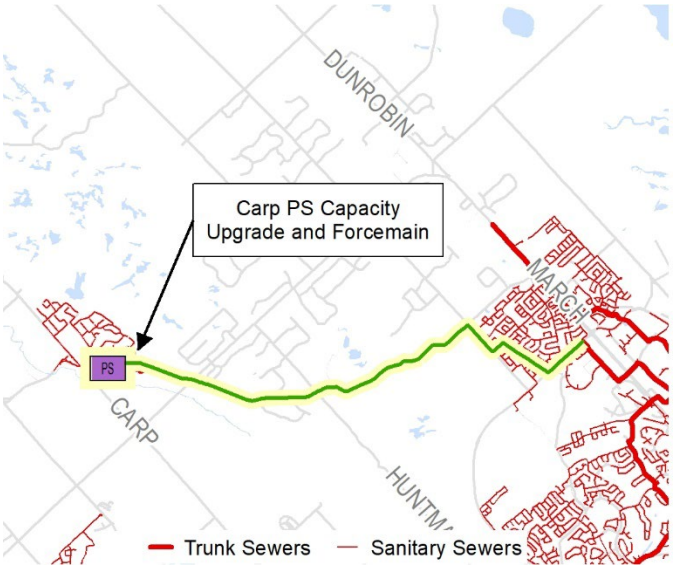
Why: This project involves modifications to the works proposed to effectively manage wet weather flows in a combined sewer area in the downtown core, accounting for future intensification.

PROJECT SCHEDULE	
Budget Authority	2034-2039

PROJECT FUNDING	
Total Capital Estimate	$119.0 M
% Development Charge Funded	5%
% Rate Funded	95%
% Other Source Funded	0%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is exempt from the requirements of the Municipal Engineers Class EA
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Coordinate projects with renewal program 2. Functional, preliminary, and detailed design 3. Implementation (tender and construction)

Carp Pump Station Capacity Upgrade and Forcemain



PROJECT RATIONALE

What: The project includes the upgrade of the pumping station to its ultimate capacity of 95 L/s and the construction of a second forcemain. The total length of this infrastructure is 9.5 km of pipe construction.

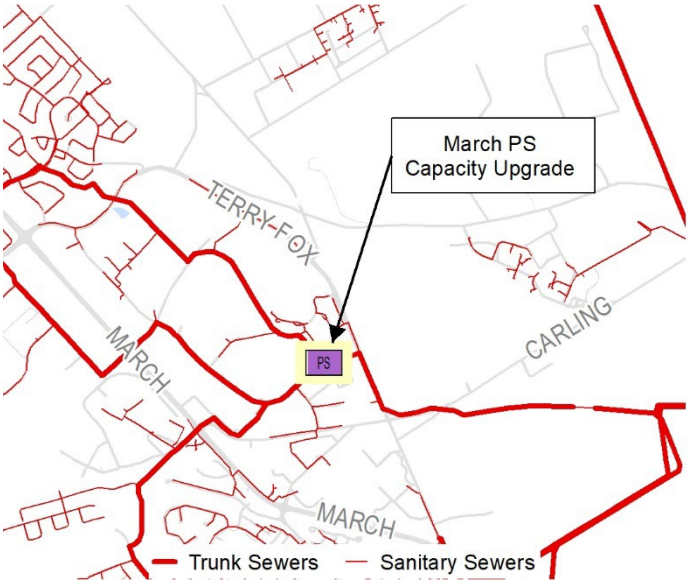
Why: The purpose of this project is to accommodate 2046 growth demands in the village of Carp.

PROJECT SCHEDULE	
Budget Authority	2029-2034

PROJECT FUNDING	
Total Capital Estimate	$30.1 M
% Development Charge Funded	75%
% Rate Funded	25%
% Other Source Funded	0%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	Depending on the final alignment, this project may be a Schedule B undertaking or will be exempt under the Municipal Engineers Class EA.
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Review flow monitoring to confirm timeline requirements for project 2. Functional, preliminary, and detailed design 3. Implementation (tender and construction)

March Pump Station Capacity Upgrade



PROJECT RATIONALE

What: This project involves upgrading the facility to achieve its ultimate planned capacity of 586 L/s.

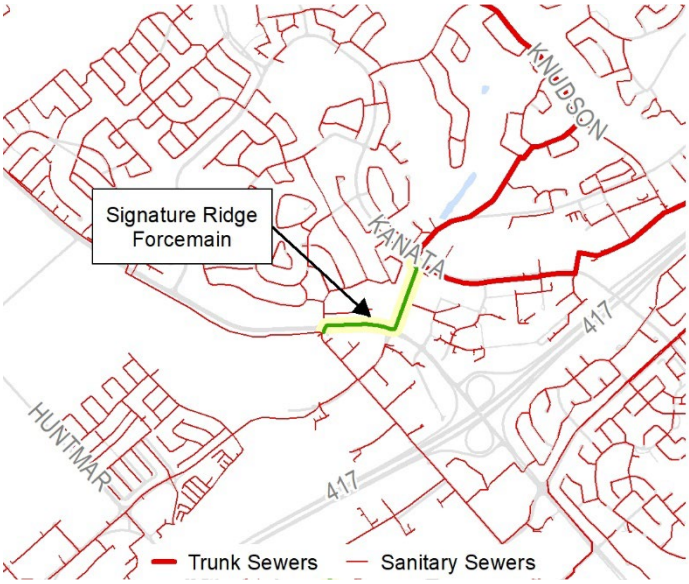
Why: This capacity upgrade is required to support 2046 population growth demands in Kanata North.

PROJECT SCHEDULE	
Budget Authority	2039-2044

PROJECT FUNDING	
Total Capital Estimate	$2.8 M
% Development Charge Funded	70%
% Rate Funded	30%
% Other Source Funded	0%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is exempt from the requirements of the Municipal Engineers Class EA
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Review flow monitoring to confirm timeline requirements for project 2. Preliminary and detailed design (functional design is complete) 3. Implementation (tender and construction)

Signature Ridge Forcemain



PROJECT RATIONALE

What: The project involves the construction of a second 400mm diameter forcemain with a total length of 800 metres, and a redirection of flow to the Penfield trunk sewer.

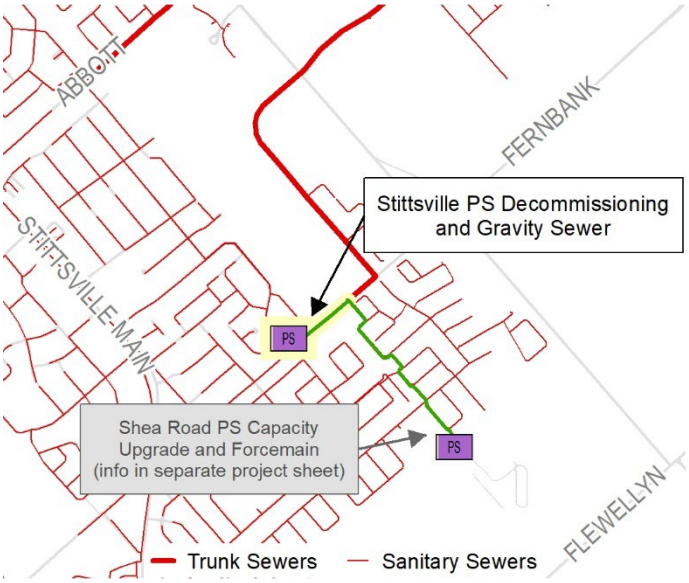
Why: The purpose of this project is to accommodate 2046 population growth demands in Kanata West north of Highway 417 by allowing the pump capacity of the facility to be increased. This project also provides forcemain redundancy for reliability.

PROJECT SCHEDULE	
Budget Authority	2029-2034

PROJECT FUNDING	
Total Capital Estimate	$5.9 M
% Development Charge Funded	75%
% Rate Funded	25%
% Other Source Funded	0%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	Depending on the final alignment, this project may be a Schedule B undertaking or will be exempt under the Municipal Engineers Class EA.
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Signature Ridge Forcemain project to be coordinated with Penfield Trunk Sewer Upgrade project 2. Functional, preliminary, and detailed design 3. Implementation (tender and construction)

Stittsville Pump Station Decommissioning and Gravity Sewer



PROJECT RATIONALE

What: The project includes the complete decommissioning of the existing Stittsville Pump Station and the construction of a new gravity sewer to direct flow to the Fernbank Collector trunk sewer.

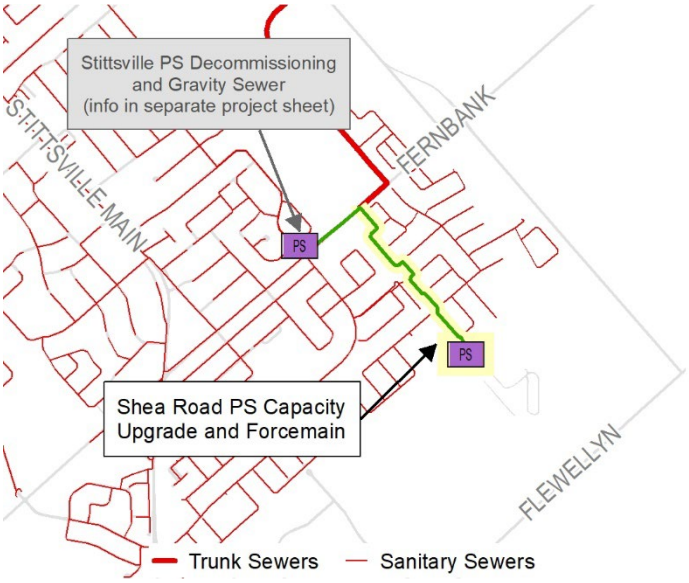
Why: The project was identified in the 2013 IMP as an opportunity to decommission an existing facility and service new population growth in Stittsville with a gravity sewer.

PROJECT SCHEDULE	
Budget Authority	**2024-2029**

PROJECT FUNDING	
Total Capital Estimate	**$6.5 M**
% Development Charge Funded	**30%**
% Rate Funded	**70%**
% Other Source Funded	**0%**

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	**This project is exempt from the requirements of the Municipal Engineers Class EA**
Follow-up Actions	**The following actions are required to pursue implementation of this project:** **1. Functional, preliminary, and detailed design** **2. Implementation (tender and construction)**

Shea Road Pump Station Capacity Upgrade and Forcemain



PROJECT RATIONALE

What: The project involves a capacity increase at Shea Road Pump Station to 110 L/s, along with the replacement of one of the existing 200mm diameter forcemain with a larger diameter.

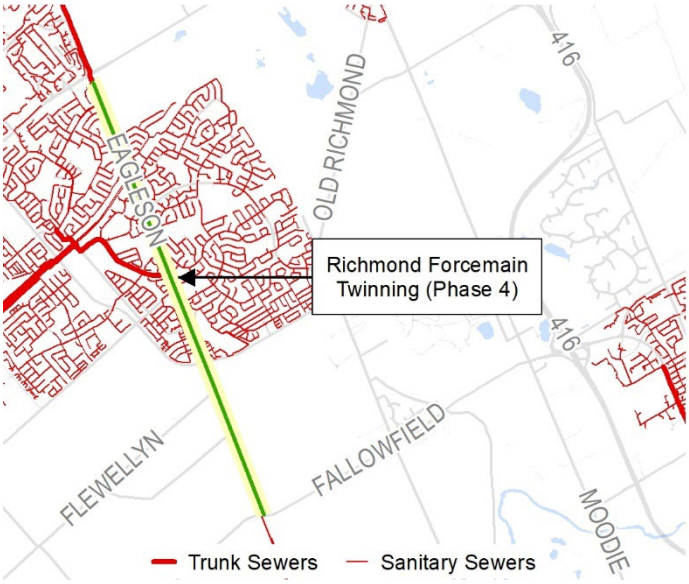
Why: The purpose of this project is to accommodate 2046 population growth demands in Stittsville South.

PROJECT SCHEDULE	
Budget Authority	2029-2034

PROJECT FUNDING	
Total Capital Estimate	$7.8 M
% Development Charge Funded	100%
% Rate Funded	0%
% Other Source Funded	0%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is exempt from the requirements of the Municipal Engineers Class EA
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Confirm preferred solution through Master Servicing Study for upstream expansion area 2. Review flow monitoring and confirm timeline requirements for project 3. Functional, preliminary, and detailed design 4. Implementation (tender and construction)

Richmond Forcemain Twinning (Phase 4)



PROJECT RATIONALE

What: The capacity of Richmond Pump Station will be increased to its ultimate planned capacity of 350 L/s by constructing the last phase of forcemain twinning (6.1 km kilometres).

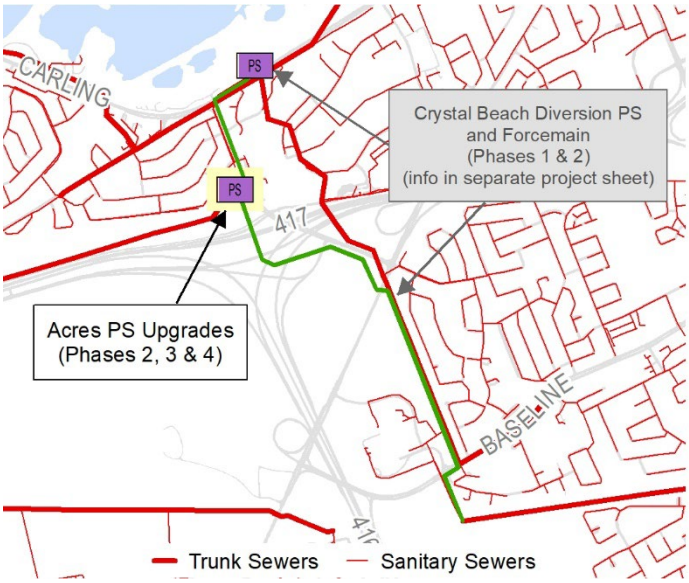
Why: The purpose of this project is to accommodate 2046 population growth in the village of Richmond.

PROJECT SCHEDULE	
Budget Authority	2024-2029

PROJECT FUNDING	
Total Capital Estimate	$38.6 M
% Development Charge Funded	75%
% Rate Funded	25%
% Other Source Funded	0%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is exempt from the requirements of the Municipal Engineers Class EA
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Implementation (tender and construction; design is complete)

Acres Pump Station Risk Mitigation (Phase 2)



PROJECT RATIONALE

What: This project involves implementing risk mitigation measures at Acres Pump Station. Scope of work includes modifications to forcemains, upsizing of the diesel generator, and sealing two maintenance holes on the overflow line.

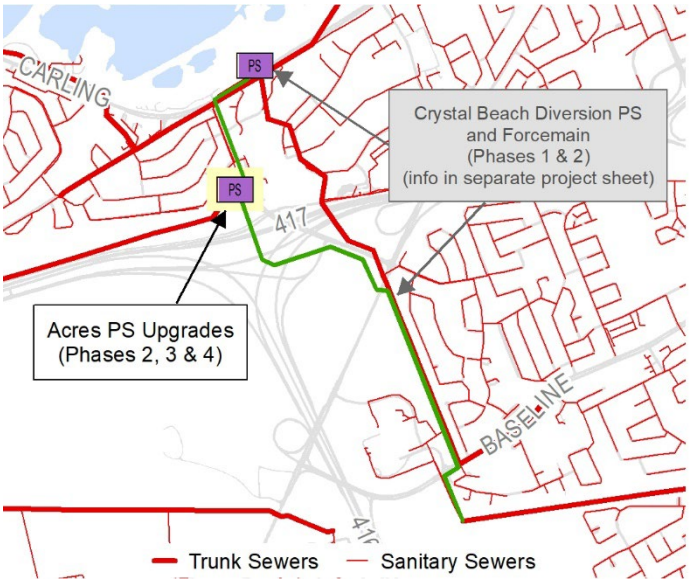
Why: The purpose of this project is to reduce risk at the station and improve the resiliency of Acres Pump Station during extreme wet weather events.

PROJECT SCHEDULE	
Budget Authority	2024-2029

PROJECT FUNDING	
Total Capital Estimate	$25.5 M
% Development Charge Funded	48%
% Rate Funded	52%
% Other Source Funded	0%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is exempt from the requirements of the Municipal Engineers Class EA
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Preliminary and detailed design (functional design is complete) 2. Implementation (tender and construction)

Acres Pump Station Capacity Upgrade (Phase 3)



PROJECT SCHEDULE	
Budget Authority	2029-2034

PROJECT FUNDING	
Total Capital Estimate	$34.1 M
% Development Charge Funded	39%
% Rate Funded	61%
% Other Source Funded	0%

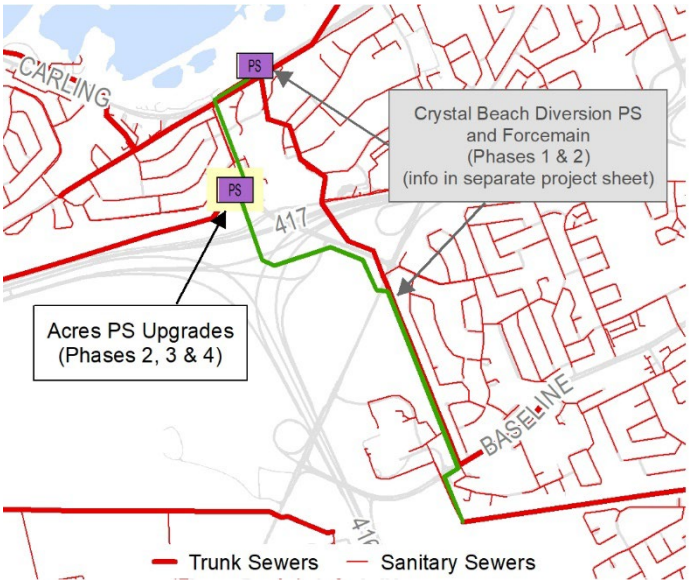
PROJECT RATIONALE

What: Additional pumps are required to accommodate future projected peak flows of approximately 4,600 L/s.

Why: The purpose of this project is to provide additional capacity to accommodate 2046 population growth in the West Urban Community (WUC).

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is exempt from the requirements of the Municipal Engineers Class EA
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Review flow monitoring to establish project timelines. 2. Preliminary and detailed design (functional design is complete) 3. Implementation (tender and construction)

Acres Pump Station Overflow (Phase 4)



PROJECT RATIONALE

What: The project involves upsizing the Acres Pump Station overflow line.

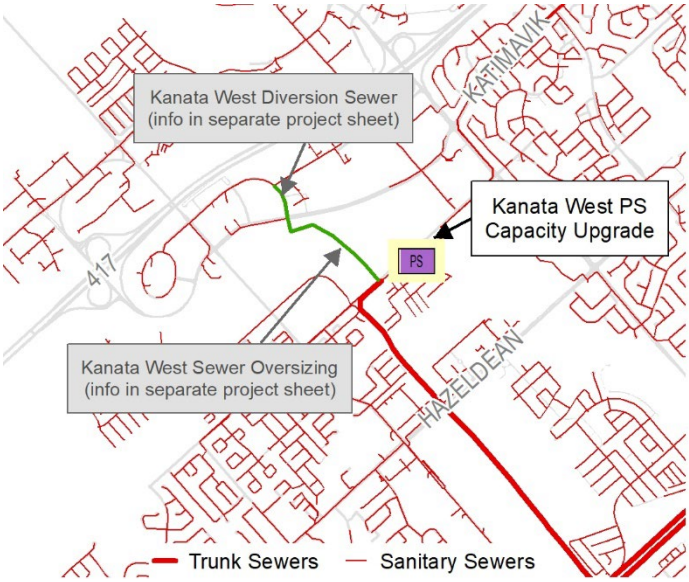
Why: The purpose of this project is to resolve the hydraulic restriction in the facility s overflow line, in consideration of 2046 population growth and significant increases in peak inflows to Acres Pump Station.

PROJECT SCHEDULE	
Budget Authority	2034-2039

PROJECT FUNDING	
Total Capital Estimate	$26.3 M
% Development Charge Funded	80%
% Rate Funded	20%
% Other Source Funded	0%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is a Type B under the Municipal Engineers Class EA
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Review and confirm the preferred sanitary overflow location 2. Functional, preliminary, and detailed design 3. Implementation (tender and construction)

Kanata West Pump Station Capacity Upgrade



PROJECT RATIONALE

What: This project involves upgrading the facility to achieve its ultimate planned capacity of 1250 L/s.

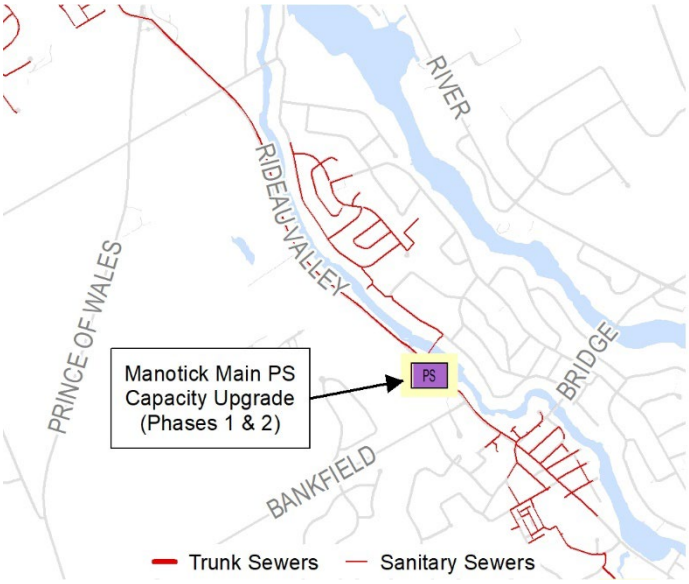
Why: This capacity upgrade is required to support 2046 population growth demands in Kanata West.

PROJECT SCHEDULE	
Budget Authority	2029-2034

PROJECT FUNDING	
Total Capital Estimate	$3.3 M
% Development Charge Funded	100%
% Rate Funded	0%
% Other Source Funded	0%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is exempt from the requirements of the Municipal Engineers Class EA
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Review flow monitoring to confirm timeline requirements for project 2. Preliminary and detailed design (functional design is complete) 3. Implementation (tender and construction)

Manotick Main Pump Station Capacity Upgrade (Phase 1)



PROJECT RATIONALE

What: This project involves upgrading the facility to achieve its interim planned capacity of 175 L/s.

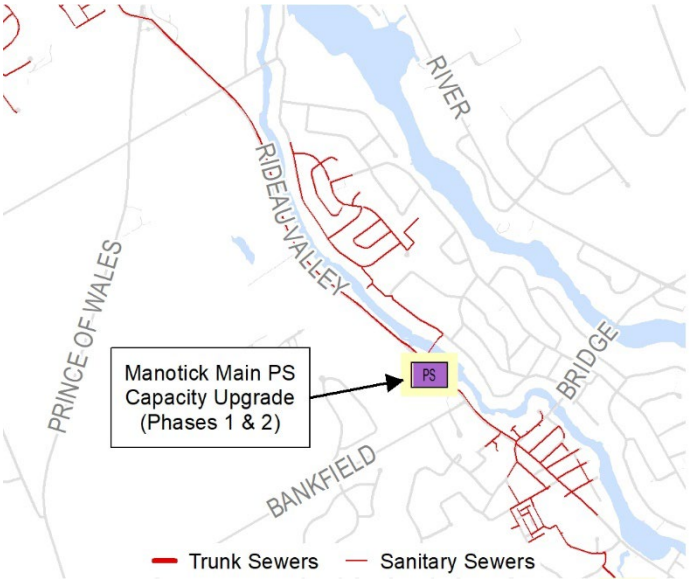
Why: The purpose of this project is to provide sufficient capacity to convey 2046 growth flows in the village of Manotick.

PROJECT SCHEDULE	
Budget Authority	2024-2029

PROJECT FUNDING	
Total Capital Estimate	$2.5 M
% Development Charge Funded	64%
% Rate Funded	36%
% Other Source Funded	0%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is exempt from the requirements of the Municipal Engineers Class EA
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Preliminary and detailed design (functional design is complete) 2. Implementation (tender and construction)

Manotick Main Pump Station Capacity Upgrade (Phase 2)



PROJECT RATIONALE

What: This project involves upgrading the facility to achieve its ultimate planned capacity of 322L/s.

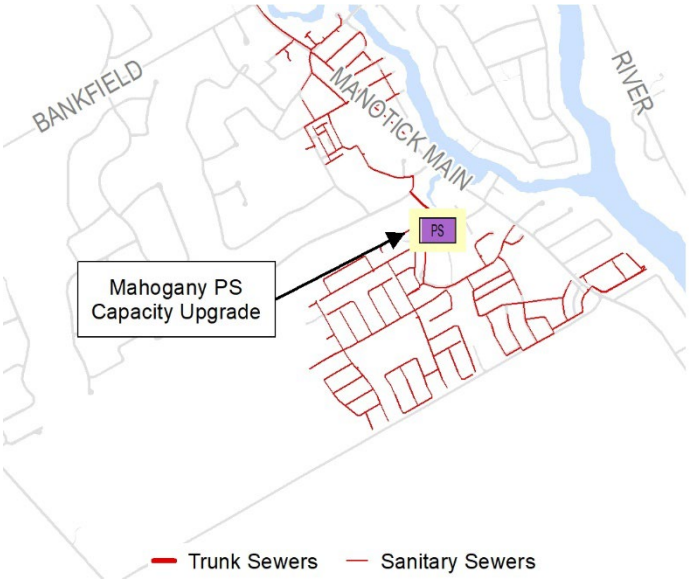
Why: An expansion to the facility s ultimate capacity is required to provide the necessary capacity to provide wastewater servicing to existing areas currently on septic systems that request a connection to the City sewer system and to support intensification in the village.

PROJECT SCHEDULE	
Budget Authority	2044-2046

PROJECT FUNDING	
Total Capital Estimate	$4.3 M
% Development Charge Funded	5%
% Rate Funded	95%
% Other Source Funded	0%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is exempt from the requirements of the Municipal Engineers Class EA
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Monitor the increase in new sewer connections for properties currently served by private septic systems 2. Preliminary and detailed design (functional design is complete) 3. Implementation (tender and construction)

Mahogany Pump Station Capacity Upgrade



PROJECT RATIONALE

What: Increase capacity at Mahogany Pump Station to its ultimate capacity of 166 L/s.

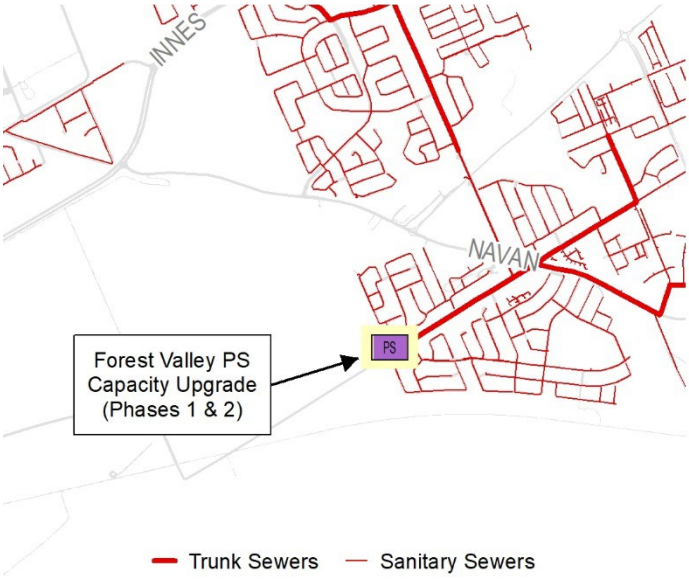
Why: An expansion to the facility s ultimate capacity is required to convey additional growth demands in South Manotick as well as properties in the area which are currently on private septic systems.

PROJECT SCHEDULE	
Budget Authority	2024-2029

PROJECT FUNDING	
Total Capital Estimate	$3.3 M
% Development Charge Funded	90%
% Rate Funded	10%
% Other Source Funded	0%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is exempt from the Municipal Engineers Class EA
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Monitor growth in South Manotick to confirm project timing requirements 2. Functional, preliminary and detailed design 3. Implementation (tender and construction)

Forest Valley Pump Station Capacity Upgrade (Phase 1)



PROJECT RATIONALE

What: Increase capacity at Forest Valley Pump Station to its interim capacity of 240 L/s.

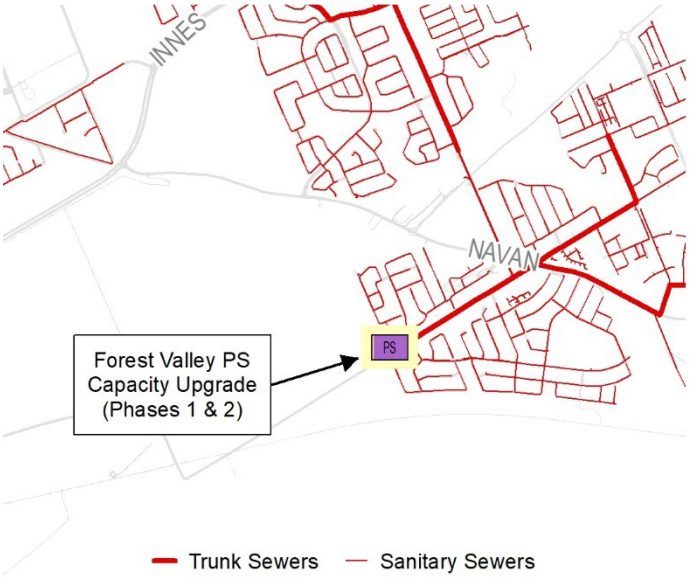
Why: The purpose of this project is to accommodate a significant portion of the 2046 growth demands in the East Urban Community.

PROJECT SCHEDULE	
Budget Authority	2029-2034

PROJECT FUNDING	
Total Capital Estimate	$2.6 M
% Development Charge Funded	4%
% Rate Funded	96%
% Other Source Funded	0%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is exempt from the requirements of the Municipal Engineers Class EA
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Monitor flows to confirm project timing requirements 2. Preliminary and detailed design (functional design is complete) 3. Implementation (tender and construction)

Forest Valley Pump Station Capacity Upgrade (Phase 2)



PROJECT RATIONALE

What: Increase capacity at Forest Valley Pump Station to its ultimate capacity of 385 L/s.

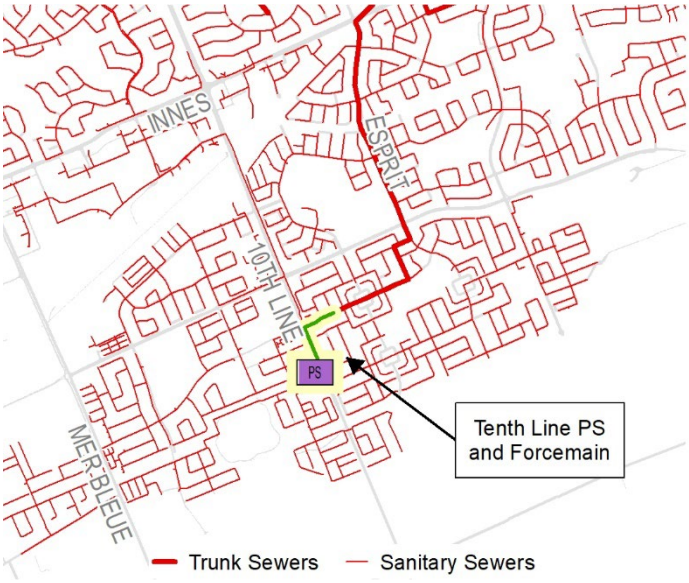
Why: The purpose of this project is to accommodate the remainder of the 2046 growth demands in the East Urban Community.

PROJECT SCHEDULE	
Budget Authority	2044-2046

PROJECT FUNDING	
Total Capital Estimate	$3.0 M
% Development Charge Funded	100%
% Rate Funded	0%
% Other Source Funded	0%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is exempt from the requirements of the Municipal Engineers Class EA
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Monitor flows to confirm project timing requirements 2. Preliminary and detailed design (functional design is complete) 3. Implementation (tender and construction)

Tenth Line Pump Station and Forcemain



PROJECT RATIONALE

What: Increase capacity at Tenth Line Pump Station from 422 L/s to 582 L/s to accommodate expansion area E 1. The project includes the replacement of the existing 300mm forcemain with a 400mm forcemain and the upgrade of the pumps at Tenth Line Pumping Station to increase the pump rate capacity.

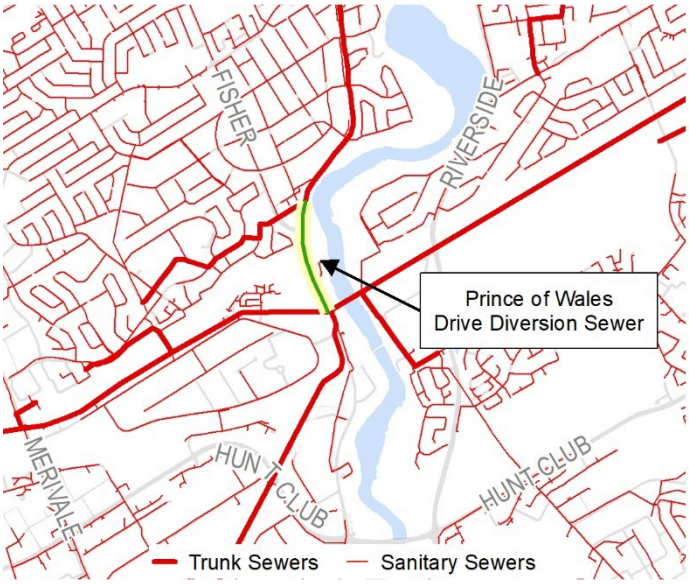
Why: The purpose of this project is to support 2046 growth demands and existing servicing needs in the Mer Bleue Community.

PROJECT SCHEDULE	
Budget Authority	2034-2039

PROJECT FUNDING	
Total Capital Estimate	$2.3 M
% Development Charge Funded	100%
% Rate Funded	0%
% Other Source Funded	0%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is exempt from the requirements of the Municipal Engineers Class EA
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Confirm preferred solution through Master Servicing Study for upstream expansion area 2. Monitor flows to confirm project timing requirements 3. Functional, preliminary, and detailed design 4. Implementation (tender and construction)

Prince of Wales Diversion Sewer



PROJECT RATIONALE

What: The Borden Sideroad Collector drains into the Mooney's Bay Collector on Prince of Wales Drive before flowing into the West Nepean Collector. A diversion has been proposed on Prince of Wales Drive to direct flows most upstream of the Borden Sideroad Collector south into the Lynwood Collector. The recommended diversion trunk spans approximately 700 metres with a diameter of 750mm.

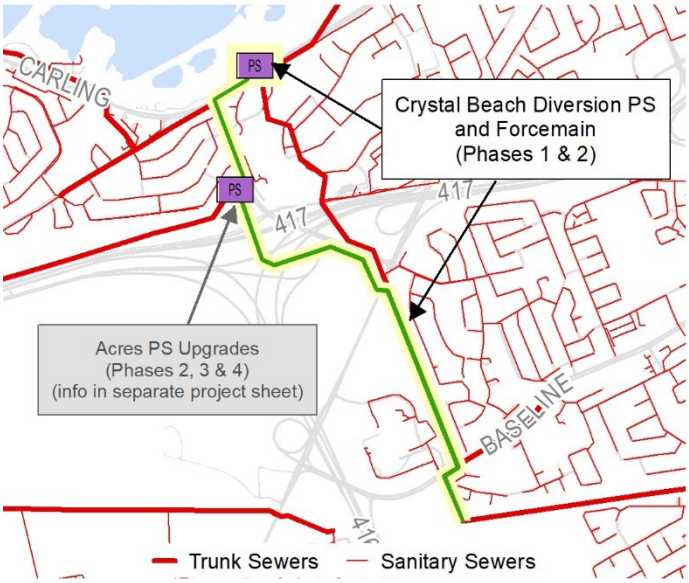
Why: The purpose of this project is to divert existing wastewater flows away from the West Nepean Collector to mitigate existing capacity restrictions, allow intensification inside the greenbelt, and ultimately reduce surcharging in the West Nepean Collector.

PROJECT SCHEDULE	
Budget Authority	2039-2044

PROJECT FUNDING	
Total Capital Estimate	$5.3 M
% Development Charge Funded	80%
% Rate Funded	20%
% Other Source Funded	0%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is exempt from the requirements of the Municipal Engineers Class EA
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Establish project timelines by monitoring intensification and flows in West Nepean Collector 2. Functional, preliminary, and detailed design 3. Implementation (tender and construction)

Crystal Beach Diversion PS and Forcemain (Phase 1)



PROJECT RATIONALE

What: The project involves upgrading the capacity of Crystal Beach Pump Station to 560 L/s. A second forcemain will be required (700 metres) following the same alignment as the existing forcemain from Crystal Beach PS to Acres PS.

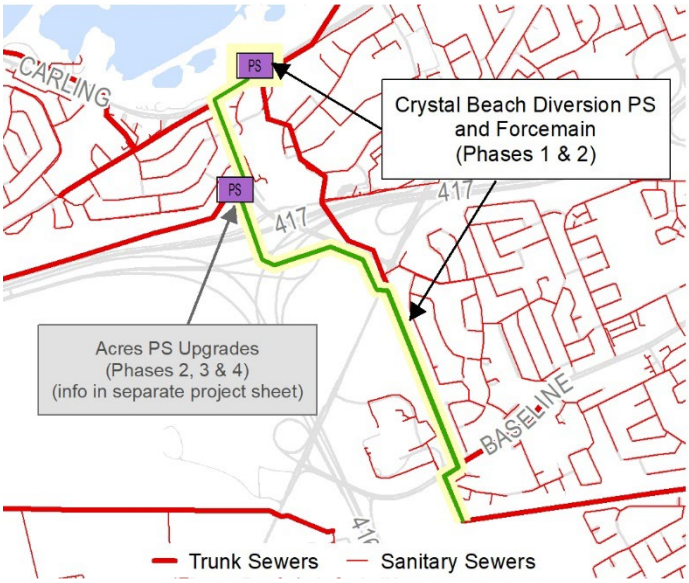
Why: The purpose of this project is to divert existing wastewater flows away from the West Nepean Collector to mitigate existing capacity restrictions, allow intensification inside the greenbelt, and ultimately reduce surcharging in the West Nepean Collector.

PROJECT SCHEDULE	
Budget Authority	2029-2034

PROJECT FUNDING	
Total Capital Estimate	$32.6 M
% Development Charge Funded	80%
% Rate Funded	20%
% Other Source Funded	0%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is eligible for screening to exempt under the Municipal Engineers Class EA
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Flow monitoring for Crystal Beach collector and Graham Creek collector to characterize inflows at Crystal Beach Pump Station 2. Feasibility / options review study and functional design 3. Preliminary and detailed design 4. Implementation (tender and construction)

Crystal Beach Diversion Pump Station and Forcemain (Phase 2)



PROJECT RATIONALE

What: The project involves constructing a new twinned forcemain extension (2.2km) from the Acres Pump Station directly to the Lynwood Collector (bypassing Acres Pump Station). This is the ultimate solution for Crystal Beach Pump Station and will include a tunnelled portion to cross under Highway 417.

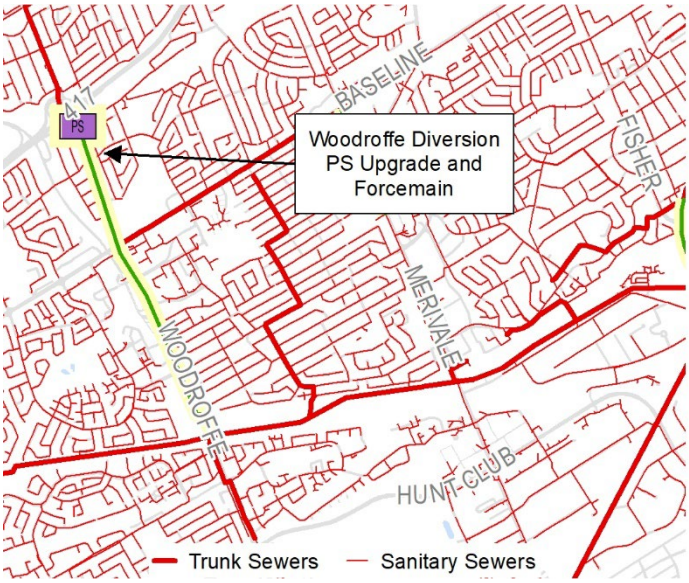
Why: Bypassing Acres Pump Station will be necessary in the future as future flows from the West Urban Community reach 90% of Acres Pump Station ultimate rated capacity.

PROJECT SCHEDULE	
Budget Authority	2039-2044

PROJECT FUNDING	
Total Capital Estimate	$31.1 M
% Development Charge Funded	80%
% Rate Funded	20%
% Other Source Funded	0%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is a Type B under the Municipal Engineers Class EA
Follow-up Actions	1. Monitoring flows at Acres Pump Station to compare increasing inflow rates with station capacity 2. Functional, preliminary, and detailed design 3. Implementation (tender and construction)

Woodroffe Diversion Pump Station Upgrade and Forcemain



PROJECT RATIONALE

What: The project involves upgrading the capacity of Woodroffe Pump Station to 750 L/s and constructing a second forcemain. The proposed upgrade to the Woodroffe Pump Station aims to increase the amount of flow conveyed south toward the Lynwood Collector, thus reducing the amount of flow from Woodroffe Pump Station that ultimately arrives at the West Nepean Collector.

Why: The purpose of this project is to increase the amount of wastewater flow diverted away from the West Nepean Collector, to mitigate existing capacity restrictions in the Woodroffe Collector, allow intensification inside the greenbelt, and ultimately reduce surcharging in the West Nepean Collector.

PROJECT SCHEDULE	
Budget Authority	2029-2034

PROJECT FUNDING	
Total Capital Estimate	$59.9 M
% Development Charge Funded	80%
% Rate Funded	20%
% Other Source Funded	0%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is eligible for screening to exempt under the Municipal Engineers Class EA
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Flow monitoring of sewers discharging to Woodroffe Pump Station to characterize inflows 2. Feasibility / options review study and functional design 3. Preliminary and detailed design 4. Implementation (tender and construction)

Airport Parkway Diversion Sewer

PROJECT RATIONALE

What: The Upper Rideau River Collector flows into the Outfall Sewer. A diversion has been proposed to direct flows from the Upper Rideau River Collector at Airport Parkway into the South Ottawa Collector. The recommended diversion trunk spans approximately 1.4 km with a diameter of 750mm. The majority of the sewer will need to be tunneled.

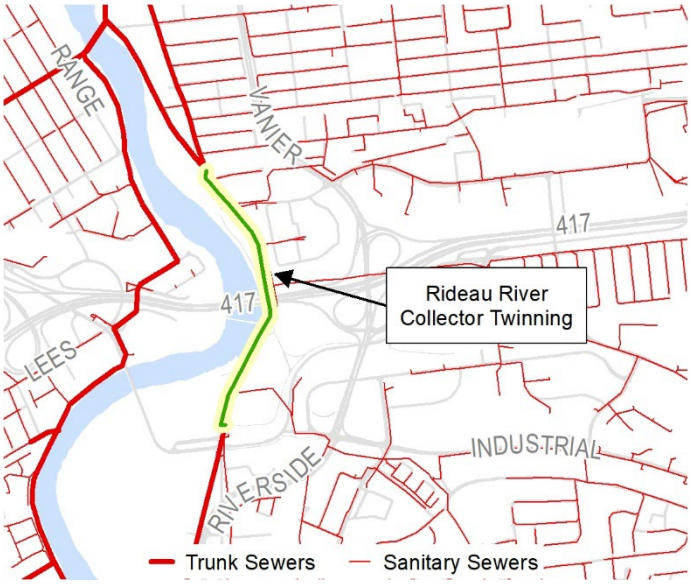
Why: The purpose of this project is to divert wastewater flows away from the Rideau River Collector (downstream of Airport Parkway) to the Lynwood Collector in order to allow for intensification development, and mitigate surcharging issues along the Rideau River Collector.

PROJECT SCHEDULE	
Budget Authority	2024-2029

PROJECT FUNDING	
Total Capital Estimate	$34.7 M
% Development Charge Funded	80%
% Rate Funded	20%
% Other Source Funded	0%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project exempt from the requirements of the Municipal Engineers Class EA
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Coordinate diversion project with Airport Parkway Road widening project 2. Flow monitoring to confirm pipe size 3. Functional, preliminary, and detailed design 4. Implementation (tender and construction)

Rideau River Collector Twinning



PROJECT RATIONALE

What: The project involves constructing a new twin sewer to the existing Rideau River Collector. The recommended twin sewer spans approximately 1,200m with a diameter of 1,350mm.

Why: This project is required to support intensification in the Hurdman, St. Laurent and Tremblay Transit Oriented Development areas.

PROJECT SCHEDULE	
Budget Authority	2034-2039

PROJECT FUNDING	
Total Capital Estimate	$21.4 M
% Development Charge Funded	100%
% Rate Funded	0%
% Other Source Funded	0%

APPROVALS AND FOLLOW-UP ACTIONS	
EA Requirements	This project is a Type B under the Municipal Engineers Class EA
Follow-up Actions	The following actions are required to pursue implementation of this project: 1. Establish project timelines by monitoring intensification and flows in the Hurdman, Tremblay, and St Laurent transit-oriented development areas 2. Functional, preliminary, and detailed design 3. Implementation (tender and construction)