

Municipality of Port Hope

Capital Projects

Project	4006 WWTP Effluent Flow Meter		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2025

Description

Project Description

Replacement of the WWTP final effluent flow meter, instrumentation, and wiring controls.

Project Justification

The WWTP final effluent flow meter's purpose is to accurately tabulate the quantity and velocity of treated water leaving the WWTP to Lake Ontario. The final effluent flow meter also plays an important role in chemical dosage optimization, recorded process data, and provincial and federal regulatory reporting.

The current "Flo-Dar" radar style final effluent flow meter, instrumentation, and wiring controls are nearing the end of its estimated useful life of 15-20 years and require asset(s) replacement. Additionally, in 2023 the final effluent flow meter experienced failures that required emergency repairs to the control board and battery backup system that are prompting full asset(s) replacement.

In 2023 an engineering consultant was hired to review and recommend flow meter and instrumentation options available to the Municipality for a final effluent flow meter that is best suited for the WWTP's design, that is capable of tabulating multi-directional flows accurately, and that will work in conjunction with the municipalities effluent pumping station configuration.

As a result of the poor asset condition due to expired estimated useful life, failures causing emergency repairs, and improved modern flow meter technological advances, the WWTP final effluent flow meter is required to be replaced in 2025.

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Project	4006 WWTP Effluent Flow Meter		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2025

Budget							
	Total	Prior Years	2025	2026	2027	2028	2029
Expenditures	100,000		100,000				
Funding							
Utility Rates & Reserves							
Contrib fr Wastewater R/F	100,000		100,000				
	100,000		100,000				
Funding Total	100,000		100,000				

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Project	4006 WWTP Effluent Flow Meter		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2025

Attributes		
Attribute	Value	Comment
Attributes		
Department	Wastewater	
Project Type	Replacement	
Replacement Type	Replacement - Similar	
Tax Levy Allocation	Utilities	
Physical Boundary Location		
Identified in any Council Approved Plan?	Yes	
Identify Council Approved Plan(s)	2019 Water/Wastewater Rate Study	
Project Status	Ongoing	
Asset Management Plan (AMP)		
Existing Asset ID #	Flow Meter (11165) / Instrumentation (11149)	
Replacement Value Identified in AMP (\$)	\$107,537	- Value taken from 2019 Water/Wastewater Rate Study - Individual cost pooled in AMP
Replacement Year Identified in AMP	2022	
Estimated Useful Life (in years)	15	
Future Annual Impact on AMP (Cost per year)	\$500	- Annual Inspection & Calibration
Date		
Start Date	Apr 7, 2025	
Completion Date	May 29, 2026	
To be Completed by Finance		
Approval Status	Recommended by Finance Committee	No budget approval prior to 2022.
GL Account Number	410-000-4006-6900	

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Gallery

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Version	03 Proposed by Budget	Year	2025

Gallery

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Capital Projects

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Version	03 Proposed by Budget	Year	2025

Gallery

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Municipality of Port Hope

Capital Projects

Project	4029 WWTP SCADA System Replacement		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2025

Description

Project Description

Replacement and upgrade of the WWTP SCADA System; computers, programs, licenses, reporting libraries, software, hardware, and firewall security.

Project Justification

The WWTP SCADA (Supervisory Control and Data Acquisition) system's purpose is for controlling, monitoring, and analyzing the wastewater systems industrial devices and processes. The computerized SCADA system consists of software, hardware, and program components that enables the remote and on-site operation, process adjustment, equipment monitoring, and data gathering from the wastewater system.

The current WWTP SCADA computer system was installed in 2016 and has surpassed its estimated useful life of 5 years and requires asset replacement.

The WWTP SCADA system; computers, programs, licenses, reporting libraries, software, hardware, and firewall security plays an important role in wastewater treatment and collection system operation, remote and on-site process adjustments, data collection, equipment monitoring, and provincial and federal regulatory reporting.

As a result of poor asset condition due to expired estimated useful life; dated software, hardware, programs, and licenses; and the need for improved firewall security, the WWTP SCADA system is required to be replaced in 2025.

Municipality of Port Hope

Capital Projects

Project	4029 WWTP SCADA System Replacement		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2025

Budget							
	Total	Prior Years	2025	2026	2027	2028	2029
Expenditures	58,000		58,000				
Funding							
Utility Rates & Reserves							
Contrib fr Wastewater R/F	58,000		58,000				
	58,000		58,000				
Funding Total	58,000		58,000				

Municipality of Port Hope

Capital Projects

Project	4029 WWTP SCADA System Replacement		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2025

Attributes		
Attribute	Value	Comment
Attributes		
Department	Wastewater	
Project Type	Replacement	
Replacement Type	Replacement - Similar	
Tax Levy Allocation	Utilities	
Physical Boundary Location	Urban Port Hope	
Identified in any Council Approved Plan?	Yes	
Identify Council Approved Plan(s)	2019 Water/Wastewater Rate Study	
Project Status		
Asset Management Plan (AMP)		
Existing Asset ID #	N/A - Asset pooled with WWTP (8284)	Individual asset does not exist; SCADA System requires individual asset creation
Replacement Value Identified in AMP (\$)	\$47,229	- Value taken from 2019 Water/Wastewater Rate Study
Replacement Year Identified in AMP	2025	- \$21,507 (2022) / \$25,792 (2027)
Estimated Useful Life (in years)	5	- last upgrade 2016
Future Annual Impact on AMP (Cost per year)	\$3000	- Annual software and license updates
Date		
Start Date	Feb 3, 2025	
Completion Date	Apr 30, 2025	
To be Completed by Finance		
Approval Status	Recommended by Finance Committee	
GL Account Number		

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Gallery

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