

Municipality of Port Hope

Capital Projects

Project	4033 WWC Garage		
Department	Wastewater		
Version	04 Approved by Council	Year	2026

Description

Project Description

Civil design, construction, and supply of a WWC storage garage that is required to house essential Wastewater Divisional needs.

Project Justification

In 2016 Wastewater Collection was transferred from the Roads Division to the Wastewater Treatment Plant without having garage storage. A Collections garage is required to house essential Collection vehicles (3), essential equipment, tools, and materials.

At the time of transfer, a local biosolids disposal facility was available and the Plant building designed to store biosolids onsite for seasonal land application was utilized as a stopgap measure as garage storage. In 2024 the Wastewater Division experienced a loss in service; the local biosolids disposal facility is no longer available. Consequently, high trucking costs have been incurred to dispose of biosolids at a much greater distance.

A Collections garage makes the onsite biosolids storage building available for its designed purpose, allowing the division to realize operational efficiencies in the Biosolids Management Program. The projected savings will yield a payback of the proposed capital expense in approximately 4.75 years and save the ratepayers a further approximate 7 million over the 40-year estimated useful life of the asset.

This project includes civil design, construction, and supply of a Collections storage garage, utility servicing, site grading, and secure fence improvements. The proposed storage garage is a prefabricated steel garage with insulated liner panels and a slab-on-grade foundation.

One vehicle will be added to the fleet; a used and near end-of-life dump truck will be repurposed from the Roads Division to transport biosolids onsite at the Plant from the production building to the storage building with costs reflected below. Also, a cost analysis of proposed biosolids management by land application can be found below.

Municipality of Port Hope

Capital Projects

Project	4033 WWC Garage		
Department	Wastewater		
Version	04 Approved by Council	Year	2026

Budget

	Total	Prior Years	2026	2027	2028	2029	2030
Expenditures	950,000		950,000				
Funding							
Utility Rates & Reserves							
Contrib fr Wastewater R/F	950,000		950,000				
	950,000		950,000				
Funding Total	950,000		950,000				

Operating Impact

	Total	2026	2027	2028	2029	2030	2025
Contrib fr Wastewater R/F	(20,400)	(20,400)					
Contracted Services	6,000	6,000					
R & M - Equipment	6,000	6,000					
R & M - Buildings & Grounds	6,000	6,000					
Natural Gas	800	800					
Hydro	800	800					
Water & Sewer	800	800					
Total	0	0					

Municipality of Port Hope

Capital Projects

Project	4033 WWC Garage		
Department	Wastewater		
Version	04 Approved by Council	Year	2026

Attributes		
Attribute	Value	Comment
Attributes		
Department	Wastewater	
Project Type	New Asset	
Replacement Type		
Tax Levy Allocation	Utilities	Water/Wastewater Rates
Physical Boundary Location		
Identified in any Council Approved Plan?	No	
Identify Council Approved Plan(s)		
Project Status		
Asset Management		
Existing Asset ID #	New Asset	
Replacement Value Identified in AMP (\$)		
Replacement Year Identified in AMP		
Estimated Useful Life (in years)	40 years	
Future Annual Impact on AMP (Cost per year)	\$20,400	utility fee's, maintenance, grounds improvements, repair, etc.
Date		
Start Date	Mar 2, 2026	
Completion Date	Dec 31, 2026	
To be Completed by Finance		
Approval Status	Included in Budget	
GL Account Number		

Municipality of Port Hope

Capital Projects

Project	4034 Fire Panel Replacement Project		
Department	Wastewater		
Version	04 Approved by Council	Year	2026

Description

Project Description

Replacement of the fire alarm panel, fire detection sensors, fire alarm pull stations, gas monitors, and gas sensors at the Wastewater Treatment Plant.

Project Justification

This project is for the replacement of the fire alarm panel, fire detection sensors, fire alarm pull stations, gas monitors, gas sensors, and associated electrical components at the Wastewater Treatment Plant.

The fire panel and gas monitoring systems including all components are beyond their estimated useful life and have been assessed in poor condition resulting in required replacement.

During annual inspections it has been brought to the municipalities attention that parts and components for the existing MXL fire alarm panels at the Wastewater Treatment Plant are obsolete and no longer attainable.

The Ontario Fire Code and Ontario Building Code mandates working fire alarm systems for the safety of the building occupants. Maintaining an obsolete fire alarm system creates a safety risk for staff and visitors in the event repairs are needed and parts are unattainable.

In addition to assets beyond estimated useful life and poor asset condition, obsolete fire alarm systems and unattainable parts/components are major factors that result in required replacement.

Municipality of Port Hope

Capital Projects

Project	4034 Fire Panel Replacement Project		
Department	Wastewater		
Version	04 Approved by Council	Year	2026

Budget

	Total	Prior Years	2026	2027	2028	2029	2030
Expenditures	175,000		175,000				
Funding							
Utility Rates & Reserves							
Contrib fr Wastewater R/F	175,000		175,000				
	175,000		175,000				
Funding Total	175,000		175,000				

Operating Impact

	Total	2026	2027	2028	2029	2030	2025
Contrib fr Wastewater R/F	(5,350)	(5,350)					
Contracted Services	5,350	5,350					
Total	0	0					

Municipality of Port Hope

Capital Projects

Project	4034 Fire Panel Replacement Project		
Department	Wastewater		
Version	04 Approved by Council	Year	2026

Attributes		
Attribute	Value	Comment
Attributes		
Department	Wastewater	
Project Type	Replacement	
Replacement Type	Replacement - Similar	
Tax Levy Allocation	Utilities	Water/Wastewater Rates
Physical Boundary Location		
Identified in any Council Approved Plan?	No	
Identify Council Approved Plan(s)		
Project Status		
Asset Management		
Existing Asset ID #	11207	
Replacement Value Identified in AMP (\$)		
Replacement Year Identified in AMP		
Estimated Useful Life (in years)	20	
Future Annual Impact on AMP (Cost per year)		
Date		
Start Date	May 4, 2026	
Completion Date	Aug 31, 2026	
To be Completed by Finance		
Approval Status	Included in Budget	
GL Account Number		

Municipality of Port Hope

Capital Projects

Project	4035 Chemical System Improvements		
Department	Wastewater		
Version	04 Approved by Council	Year	2026

Description

Project Description

Replacement and improvements of the chemical dosing systems and chemical spill containments at the Port Hope Wastewater Treatment Plant.

Project Justification

This project is for the replacement and improvements of the Sodium Hypochlorite, Aluminum Sulphate, and Sodium Bisulphite chemical systems and their respective spill containments.

The chemical systems at the Port Hope Wastewater Treatment Plant are beyond their estimated useful life and have been assessed in poor condition resulting in required replacement.

The replacement and improvement measures include; replacement of chemical: dosing panels, dosing panel structural supports, dosing pumps, dosing panel piping, chemical supply lines, valves, pressure gauges, and instrumentation; and improvements to: chemical storage tanks, and chemical storage spill containment sizing.

Chemical systems are essential for Wastewater Treatment Plant process control and to adequately treat Wastewater to the Ministry of the Environment, Conservation, and Parks regulatory compliance objectives and limits.

The spill containment for the chemicals at the Wastewater Treatment plant are under sized and require increased capacity in order to meet spill containment regulations. Currently the wastewater division is filling chemicals storage tanks to a lower capacity in order to meet regulations which results in more frequent deliveries in order to meet treatment plant demands.

Municipality of Port Hope

Capital Projects

Project	4035 Chemical System Improvements		
Department	Wastewater		
Version	04 Approved by Council	Year	2026

Budget							
	Total	Prior Years	2026	2027	2028	2029	2030
Expenditures	550,000		550,000				
Funding							
Utility Rates & Reserves							
Contrib fr Wastewater R/F	550,000		550,000				
	550,000		550,000				
Funding Total	550,000		550,000				

Municipality of Port Hope

Capital Projects

Project	4035 Chemical System Improvements		
Department	Wastewater		
Version	04 Approved by Council	Year	2026

Attributes		
Attribute	Value	Comment
Attributes		
Department	Wastewater	
Project Type	Replacement	
Replacement Type	Replacement - Similar	
Tax Levy Allocation	Utilities	Water/Wastewater Rates
Physical Boundary Location		
Identified in any Council Approved Plan?	No	
Identify Council Approved Plan(s)		
Project Status		
Asset Management		
Existing Asset ID #	10942-10909-10919	
Replacement Value Identified in AMP (\$)	\$722,000	Proposed cost 1712K lower due to repairing/maintaining chemical storage tanks instead of full replacement.
Replacement Year Identified in AMP	2022-2023	
Estimated Useful Life (in years)	15	
Future Annual Impact on AMP (Cost per year)		
Date		
Start Date	Apr 6, 2026	
Completion Date	Dec 31, 2026	
To be Completed by Finance		
Approval Status	Included in Budget	
GL Account Number		

Municipality of Port Hope

Capital Projects

Project	4036 WWC Circular Shoring		
Department	Wastewater		
Version	04 Approved by Council	Year	2026

Description

Project Description

Purchase of circular trench excavation shoring for the Wastewater Division

Project Justification

This project is for the purchase of circular trench excavation shoring for the water and wastewater divisions in order to safely execute infrastructure repairs.

In accordance with Occupational Health and Safety Act Legislation; where traditional methods of trench sloping of trench walls cannot be achieved, trench shoring is required for the safety of personnel entering excavation work sites.

Currently the Water and Wastewater Divisions are renting circular trench shoring which is more costly than purchasing this item outright. Purchasing instead of renting this item yields a 3-4 year payback on the capital investment over the 10 year estimated useful life of the asset.

In addition to high rental costs, shoring rental availability is also outside of the municipalities control when responding to emergency infrastructure repairs.

High rental costs and item availability are major factors that result in required purchase.

Municipality of Port Hope

Capital Projects

Project	4036 WWC Circular Shoring		
Department	Wastewater		
Version	04 Approved by Council	Year	2026

Budget							
	Total	Prior Years	2026	2027	2028	2029	2030
Expenditures	9,000		9,000				
Funding							
Utility Rates & Reserves							
Contrib fr Wastewater R/F	9,000		9,000				
	9,000		9,000				
Funding Total	9,000		9,000				

Municipality of Port Hope

Capital Projects

Project	4036 WWC Circular Shoring		
Department	Wastewater		
Version	04 Approved by Council	Year	2026

Attributes		
Attribute	Value	Comment
Attributes		
Department	Wastewater	
Project Type	New Asset	
Replacement Type		
Tax Levy Allocation	Utilities	Water/Wastewater Rates
Physical Boundary Location		
Identified in any Council Approved Plan?	No	
Identify Council Approved Plan(s)		
Project Status		
Asset Management		
Existing Asset ID #		
Replacement Value Identified in AMP (\$)		
Replacement Year Identified in AMP		
Estimated Useful Life (in years)	10	
Future Annual Impact on AMP (Cost per year)		
Date		
Start Date	May 4, 2026	
Completion Date	Jun 30, 2026	
To be Completed by Finance		
Approval Status	Included in Budget	
GL Account Number		

Municipality of Port Hope

Capital Projects

Project	5028 WTP Smoke Detector Replacement		
Department	Water		
Version	04 Approved by Council	Year	2026

Description

Project Description

Replacement of approximately 43 smoke detectors at the Water Treatment Plant that are beyond their 10 year useful life.

Project Justification

The Water Division has been replacing failing smoke detectors on a regular basis over the past few years, including 3 on August 18th 2025. The cost to replace smoke detectors as they fail is substantial when compared to a one time, complete replacement. This project was initially brought forward during the 2025 budget process and was left off the list of projects to move forward.

The majority of the smoke detectors have been in service for 20 years with a noticeable amount failing over the past few years. The typical useful life of this type of a smoke detector is 10 years. The replacement of the smoke detectors will protect the Water Treatment Plant from potential fires, while fulfilling the Municipalities insurance requirements of having a fully functioning fire/smoke detection system.

Legislative requirements fall under the Ontario Building Code, The Fire Protection and Prevention Act 1997, and the Fire Code section 6.3.3.2 - smoke alarms shall be maintained in operating condition by the owner.

The replacement mitigates risks associated with smoke detector failures resulting in improved safety to staff and visitors. Protection of the Water Treatment Plant is paramount to ensure that both water supply and fire flow protection continues to be provided to Municipal residents and business owners.

Municipality of Port Hope

Capital Projects

Project	5028 WTP Smoke Detector Replacement		
Department	Water		
Version	04 Approved by Council	Year	2026

Budget							
	Total	Prior Years	2026	2027	2028	2029	2030
Expenditures	19,000		19,000				
Funding							
Utility Rates & Reserves							
Contrib fr Water R/F	19,000		19,000				
	19,000		19,000				
Funding Total	19,000		19,000				

Municipality of Port Hope

Capital Projects

Project	5028 WTP Smoke Detector Replacement		
Department	Water		
Version	04 Approved by Council	Year	2026

Attributes		
Attribute	Value	Comment
Attributes		
Department	Water	
Project Type	Replacement	
Replacement Type	Replacement - Similar	
Tax Levy Allocation	Utilities	
Physical Boundary Location	Urban Port Hope	
Identified in any Council Approved Plan?	No	
Identify Council Approved Plan(s)	n/a	
Project Status	To be Completed by End of Year	
Asset Management		
Existing Asset ID #	1001	
Replacement Value Identified in AMP (\$)	\$20,000	The value of asset 1001 in the AMP is for the Firefinder PM1 alarm panel only. Associated smoke detectors values are not part of this replacement cost. Overall value of all smoke detectors would add an additional value of approximately \$30,000 to the asset, equating to \$50,000
Replacement Year Identified in AMP	n/a	Linked to Firefinder panel, which has different replacement threshold.
Estimated Useful Life (in years)	10 years	10 year lifecycle for smoke detector
Future Annual Impact on AMP (Cost per year)		
Date		
Start Date	Mar 2, 2026	
Completion Date	Jun 1, 2026	
To be Completed by Finance		
Approval Status	Included in Budget	
GL Account Number		

Municipality of Port Hope

Capital Projects

Project	5028 WTP Smoke Detector Replacement		
Department	Water		
Version	04 Approved by Council	Year	2026

Gallery

C:\Users\stewartm\OneDrive - Municipality of Port Hope\Desktop\Move to sharepoint\Budget 2026\Siemens Smoke Sensor.jpg



Municipality of Port Hope

Capital Projects

Project	5036 Victoria St Booster Pumping Station Building Upgrades		
Department	Water		
Version	04 Approved by Council	Year	2026

Description

Project Description

Victoria St Booster Pumping Station building refurbishments and upgrades of the following items listed in the justification below

Project Justification

Chimney removal and re-shingle, soffit/fascia, repoint brick cladding, replace 1970's heaters and add heat pump for cooling due to delta heat increase, upgrade 1970's electrical boxes/panels/transformer/lights as needed, replace 1970's windows with energy efficient units.

The Water/Wastewater rate study identified 3 building upgrade projects (WF-4, WF-5, WF-6) to be completed in 2026 at Victoria St Booster Pumping Station.

The Pumping Station provides the entire west side (Zone 2) of the Municipality with water for fire fighting and consumer use needs. This building was constructed in 1948 which has had minimal building improvements over that tenure. Building upgrades will provide assurances of longevity for continued Zone 2 water pumpage. The potential failure of old building structure and electrical equipment would result in the inability to deliver water to the westerly portion of the Municipality.

The Safe Water Drinking Act requires that the Municipality will provide the delivery of safe drinking water to its' consumers; whereas, NFPA standards set the criteria to deliver fire flow protection.

Improvements to the Pumping Station will ensure that fire flow demands are met while providing safe drinking water to the community.

Municipality of Port Hope

Capital Projects

Project	5036 Victoria St Booster Pumping Station Building Upgrades		
Department	Water		
Version	04 Approved by Council	Year	2026

Budget							
	Total	Prior Years	2026	2027	2028	2029	2030
Expenditures	90,000		90,000				
Funding							
Utility Rates & Reserves							
Contrib fr Water R/F	90,000		90,000				
	90,000		90,000				
Funding Total	90,000		90,000				

Municipality of Port Hope

Capital Projects

Project	5036 Victoria St Booster Pumping Station Building Upgrades		
Department	Water		
Version	04 Approved by Council	Year	2026

Attributes		
Attribute	Value	Comment
Attributes		
Department	Water	
Project Type	Betterment	
Replacement Type	Replacement - Upgrade	
Tax Levy Allocation	Utilities	
Physical Boundary Location	Urban Port Hope	
Identified in any Council Approved Plan?	Yes	
Identify Council Approved Plan(s)	Water and Wastewater Rate Study 2020	WF-4, WF-5, WF-6, additional funding from WF-3
Project Status	To be Completed by End of Year	
Asset Management		
Existing Asset ID #	8273	
Replacement Value Identified in AMP (\$)	\$1,765,261	
Replacement Year Identified in AMP	1998	the building is 77 years old and identified as being in very poor condition. The building is structurally sound, however upgrades are required to extend the overall building life.
Estimated Useful Life (in years)	50	
Future Annual Impact on AMP (Cost per year)		
Date		
Start Date	Apr 30, 2026	
Completion Date	Oct 16, 2026	
To be Completed by Finance		
Approval Status	Included in Budget	
GL Account Number		

Municipality of Port Hope

Capital Projects

Project	5036 Victoria St Booster Pumping Station Building Upgrades		
Department	Water		
Version	04 Approved by Council	Year	2026

Gallery

C:\Users\stewartm\OneDrive - Municipality of Port Hope\Desktop\Move to sharepoint\Budget 2026\Booster Stn Chimney.png



Municipality of Port Hope

Capital Projects

Project	5036 Victoria St Booster Pumping Station Building Upgrades		
Department	Water		
Version	04 Approved by Council	Year	2026

Gallery

C:\Users\stewartm\OneDrive - Municipality of Port Hope\Desktop\Move to sharepoint\Budget 2026\Booster Stn Heater.png



Municipality of Port Hope

Capital Projects

Project	5036 Victoria St Booster Pumping Station Building Upgrades		
Department	Water		
Version	04 Approved by Council	Year	2026

Gallery

C:\Users\stewartm\OneDrive - Municipality of Port Hope\Desktop\Move to sharepoint\Budget 2026\Booster Soffit.png



Municipality of Port Hope

Capital Projects

Project	5036 Victoria St Booster Pumping Station Building Upgrades		
Department	Water		
Version	04 Approved by Council	Year	2026

Gallery

C:\Users\stewartm\OneDrive - Municipality of Port Hope\Desktop\Move to sharepoint\Budget 2026\Booster Electrical.png



Municipality of Port Hope

Capital Projects

Project	5037 Train 3 Membrane Replacement		
Department	Water		
Version	04 Approved by Council	Year	2026

Description

Project Description

Train 3 Membrane Replacement

Project Justification

The Rate Study identifies that Train 3 Membranes (water filters) are due for replacement in 2026. These membranes are approaching their end of useful life and are currently under-performing based on low permeability values that were as low as 80 Lmh/bar. The permeability low threshold value for replacement is 100 Lmh/bar as per manufacturer. As membranes deteriorate, they become more susceptible to incremental fouling, resulting in the inability to filter the desired amount of water.

Train 3 represents 25% (3,500,000 L/day) of the Municipality's water filtration process. The Water Treatment Plant cannot operate with 3 of 4 Trains in service over the long term from both a fire flow and consumer use perspective. Currently there is a 6 to 12 month delay between date of order and receipt of the membranes.

Water Division staff continue to work with the Manufacturer on methods to maximize membrane life for current and future membranes.

Municipality of Port Hope

Capital Projects

Project	5037 Train 3 Membrane Replacement		
Department	Water		
Version	04 Approved by Council	Year	2026

Budget							
	Total	Prior Years	2026	2027	2028	2029	2030
Expenditures	520,000		520,000				
Funding							
Utility Rates & Reserves							
Contrib fr Water R/F	520,000		520,000				
	520,000		520,000				
Funding Total	520,000		520,000				

Municipality of Port Hope

Capital Projects

Project	5037 Train 3 Membrane Replacement		
Department	Water		
Version	04 Approved by Council	Year	2026

Attributes		
Attribute	Value	Comment
Attributes		
Department	Water	
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)	Water and Wastewater Rate Study 2020	project WTP-3
Project Status	Completed in Current Year	
Asset Management		
Existing Asset ID #	28925	
Replacement Value Identified in AMP (\$)	\$469,276	
Replacement Year Identified in AMP	2019	
Estimated Useful Life (in years)	5	
Future Annual Impact on AMP (Cost per year)		
Date		
Start Date	Apr 4, 2027	pending turnaround time of 6 months
Completion Date	Nov 30, 2026	
To be Completed by Finance		
Approval Status	Included in Budget	
GL Account Number		

Municipality of Port Hope

Capital Projects

Project	5038 Tube Shoring		
Department	Water		
Version	04 Approved by Council	Year	2026

Description

Project Description

Three (3) Sections of 48 inch diameter, lightweight, stackable tube shoring totaling eight (8) feet in height. The shoring consists of two (2) x 24" high sections and one (1) x 48" high section that are Engineer Approved at 12 feet in Type 3 Soil.

Project Justification

The water division performs many water service connections and valve box replacements annually for the Municipality. Water Staff have relied on tube shoring rentals from a preferred contractor for many years. Subsequently, that particular tube shoring is no longer certifiable and thus not available to rent. Local alternative tube shoring rental options are not currently available to the Municipality.

To protect the safety of Municipal workers during these minimally invasive hydrovac excavations, tube shoring must be utilized to prevent trench collapse as per regulatory requirements. Hydrovac excavations are generally 4 ft in diameter, whereas a traditional backhoe excavation is often 6 times the size.

Remediation costs for hydrovac work are substantially lower than traditional excavations, offering substantial long term savings to the water utilities operating budget.

Municipality of Port Hope

Capital Projects

Project	5038 Tube Shoring		
Department	Water		
Version	04 Approved by Council	Year	2026

Budget							
	Total	Prior Years	2026	2027	2028	2029	2030
Expenditures	9,000		9,000				
Funding							
Utility Rates & Reserves							
Contrib fr Water R/F	9,000		9,000				
	9,000		9,000				
Funding Total	9,000		9,000				

Municipality of Port Hope

Capital Projects

Project	5038 Tube Shoring		
Department	Water		
Version	04 Approved by Council	Year	2026

Attributes		
Attribute	Value	Comment
Attributes		
Department	Water	
Project Type	New Asset	
Replacement Type		
Tax Levy Allocation	Utilities	
Physical Boundary Location	Urban Port Hope	
Identified in any Council Approved Plan?	No	
Identify Council Approved Plan(s)		
Project Status		
Asset Management		
Existing Asset ID #		
Replacement Value Identified in AMP (\$)		
Replacement Year Identified in AMP		
Estimated Useful Life (in years)		
Future Annual Impact on AMP (Cost per year)		
Date		
Start Date	Jan 6, 2026	
Completion Date	Jun 6, 2026	
To be Completed by Finance		
Approval Status	Included in Budget	
GL Account Number		

Municipality of Port Hope

Capital Projects

Project	5038 Tube Shoring		
Department	Water		
Version	04 Approved by Council	Year	2026

Gallery

C:\Users\stewartm\OneDrive - Municipality of Port Hope\Desktop\Move to sharepoint\Budget 2026\Tube shoring picture 2.png



Municipality of Port Hope

Capital Projects

Project	5038 Tube Shoring		
Department	Water		
Version	04 Approved by Council	Year	2026

Gallery

C:\Users\stewartm\OneDrive - Municipality of Port Hope\Desktop\Move to sharepoint\Budget 2026\Tube shoring picture.png

