

Municipality of Port Hope

Capital Projects

Project	3062 WWPS Hope Street - Condition Improvements		
Department	Wastewater		
Version	04 Approved by Council	Year	2022

Description								
Project Description								
Wastewater Pump Station Hope Street requires repairs to: yard piping, Bypass connections, SCADA connection, hoist replacement, replacement of pump access hatches/railings, installation of inlet manhole and Wet Well repairs.								
Project Justification								
<ol style="list-style-type: none"> 1. 2019 Condition Assessment identified items requiring repair or replacement to ensure health and safety of municipal employees. 2. Replacement and repair is aligned with the Asset Management Planning. 3. SCADA connection is required to establish 24 hour operations monitoring and alarm reporting. 								
<u>Work to be completed in 2022</u>								
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">1. By-pass connections/yard piping</td> <td style="text-align: right;">= \$25,925</td> </tr> <tr> <td>2. Screening Basket Hoist Assembly Replaced</td> <td style="text-align: right;">= \$31,110</td> </tr> <tr> <td>3. Pump Access Hatches/railing Replace</td> <td style="text-align: right;">= \$25,925</td> </tr> <tr> <td>4. Install inlet MH (Wet Well Bypass)</td> <td style="text-align: right;">= \$26,884</td> </tr> </table>	1. By-pass connections/yard piping	= \$25,925	2. Screening Basket Hoist Assembly Replaced	= \$31,110	3. Pump Access Hatches/railing Replace	= \$25,925	4. Install inlet MH (Wet Well Bypass)	= \$26,884
1. By-pass connections/yard piping	= \$25,925							
2. Screening Basket Hoist Assembly Replaced	= \$31,110							
3. Pump Access Hatches/railing Replace	= \$25,925							
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<u>Work to be completed in 2023</u>								
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">1. SCADA connection</td> <td style="text-align: right;">= \$36,295</td> </tr> <tr> <td>2. Wet Well Structural inspection & Repairs</td> <td style="text-align: right;">= \$32,261</td> </tr> </table>	1. SCADA connection	= \$36,295	2. Wet Well Structural inspection & Repairs	= \$32,261				
1. SCADA connection	= \$36,295							
2. Wet Well Structural inspection & Repairs	= \$32,261							
2022 Total: \$109,844.00								
2023 Total: \$ 68,556.00								

Budget							
	Total	Prior Years	2022	2023	2024	2025	2026
Expenditures	178,400		109,844	68,556			
Funding							
Utility Rates & Reserves							
Contrib fr Wastewater R/F	178,400		109,844	68,556			
Funding Total	178,400		109,844	68,556			

Municipality of Port Hope

Capital Projects

Project	3062 WWPS Hope Street - Condition Improvements		
Department	Wastewater		
Version	04 Approved by Council	Year	2022

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)	2020 Water and Wastewater Rate Study	Projects WWPS-2 thru WWPS-7
Project Status		
Asset Management Plan (AMP)		
Existing Asset ID #		
Replacement Value Identified in AMP (\$)	\$178,400	combined cost of 2022 & 2023 items
Replacement Year Identified in AMP	2021 & 2022	
Estimated Useful Life (in years)	varies	Each project item has unique useful life
Future Annual Impact on AMP (Cost per year)		
Date		
Start Date	28-Feb-2022	
Completion Date	29-Sep-2022	
To be Completed by Finance		
Approval Status	Approved by Council	
GL Account Number	410-000-3062-6900	

Municipality of Port Hope

Capital Projects

Project	3078 WWPS Onsite (WWTP) Replace Effluent Flow Meter		
Department	Wastewater		
Version	04 Approved by Council	Year	2022

Description

Project Description

Replace 300mm flow meter, includes replacement of associated electrical components, digital readout, and corroded connective piping.

Project Justification

The current flow meter is beyond its useful life and its current status is failure mode. 2019 Asset Condition Study identified this equipment for immediate replacement.

The flow meter tracks the total quantity of raw sewage discharging from the pumping station and provides real time flow rates. Having the digital readout information provides critical information on the pump operation efficiency and the effect of Inflow & Infiltration on the facility.

Programming the digital readout to the Supervisory Control and Data Acquisition (S.C.A.D.A.) monitoring system will allow operators to receive alarm notifications after regular work hours when flow rates into the station are greater than being discharged and when pumps are not functioning properly.

Note: this pump station flow meter is a different size and style than is required for measuring the total flow of the Wastewater Treatment Plant (Project 3055). Replacement of this equipment does not require an Engineering Assessment, MECP approval, design re-engineering, facility draw upgrades and several other cost associated items. Thus this project has a lower cost value and can be completed in a shorter period of time.

Budget

	Total	Prior Years	2022	2023	2024	2025	2026
Expenditures	37,332		37,332				
Funding							
Utility Rates & Reserves							
Contrib fr Wastewater R/F	37,332		37,332				
Funding Total	37,332		37,332				

Municipality of Port Hope

Capital Projects

Project	3078 WWPS Onsite (WWTP) Replace Effluent Flow Meter		
Department	Wastewater		
Version	04 Approved by Council	Year	2022

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)	2020 Water and Wastewater Rate Study	Project WWPS-23
Project Status		
Asset Management Plan (AMP)		
Existing Asset ID #	BD0068-7	
Replacement Value Identified in AMP (\$)	\$37,332	
Replacement Year Identified in AMP	2021	
Estimated Useful Life (in years)	10	
Future Annual Impact on AMP (Cost per year)	\$4,000	
Date		
Start Date	18-Mar-2021	
Completion Date	15-Aug-2021	
To be Completed by Finance		
Approval Status	Approved by Council	
GL Account Number	410-000-3078-6900	

Municipality of Port Hope

Capital Projects

Project	4002 Upgrade P2503 Pump		
Department	Water		
Version	04 Approved by Council	Year	2022

Description

Project Description

Hire a consultant to identify the specifications of a generator and the upgrade of booster pump 2503 at the Victoria St Booster Stn, as well as drafting the RFT for the immediate purchase and installation of these assets.

Project Justification

The Victoria St Booster Pumping Station is the most important piece of infrastructure in zone 2 (west side of MPH). All zone 2 water passes through the Booster Stn before being directed to the Jocelyn St Reservoir, Fox Rd Water Tower and to the water users.

Currently the Booster Station does not have standby emergency power generation and relies on one small capacity, diesel operated pump to provide water to Zone 2 during power failures. The existing facility does not have a ventilation system to remove fumes from the diesel pump, creating a carbon monoxide hazard for staff which does not meet current regulatory requirements. A 4000 watt generator is currently deployed during power failures to allow the SCADA system to function in order to communicate with the Water Plant. As the west end of Port Hope continues to develop and as fire flow demands increase, there's a huge need for a reliable Booster Pumping Station.

Booster Pump 3 (P2503) is a diesel and electric operated pump. The diesel motor has surpassed it's useful life and is generally not an option for new applications. The pump portion of this asset is low capacity and needs to be upgraded to meet the current and future pumping needs of the Municipality, including fire flow demands. The Booster Pumping Station has one reliable pump and adding a second reliable, high capacity pump will greatly reduce the risks associated with zone 2.

This project was identified as a need during the most recent condition assessment (4 yrs ago), and was added to the current rate study to be implemented in 2022, as approved by Council.

Budget

	Total	Prior Years	2022	2023	2024	2025	2026
Expenditures	237,000		237,000				
Funding							
Utility Rates & Reserves							
Contrib fr Water R/F	237,000		237,000				
	237,000		237,000				
Funding Total	237,000		237,000				

Municipality of Port Hope

Capital Projects

Project	4002 Upgrade P2503 Pump		
Department	Water		
Version	04 Approved by Council	Year	2022

Attributes		
Attribute	Value	Comment
Attributes		
Department	Water	
Project Type	New Asset	
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)	rate study	WF-1
Project Status	Ongoing	
Asset Management Plan (AMP)		
Existing Asset ID #	8275	Pump 2503 is an existing asset and generator is a new asset
Replacement Value Identified in AMP (\$)		
Replacement Year Identified in AMP		
Estimated Useful Life (in years)	30	
Future Annual Impact on AMP (Cost per year)		
Date		
Start Date	1-Feb-2022	
Completion Date	30-Nov-2022	
To be Completed by Finance		
Approval Status	Approved by Council	
GL Account Number		

Municipality of Port Hope

Capital Projects

Project	4003 WTP Roof and drain replacement		
Department	Water		
Version	04 Approved by Council	Year	2022

Description

Project Description

Replace portions of the existing flat roof (asphalt shingles and drains) at the Water Treatment Plant.

Project Justification

The Water Treatment Plant was built between 2003-2005 and carries the original roofing materials. The roof is flat and pooling of water has been occurring in numerous locations since 2005. Over the past 3-5 years, certain areas have deteriorated which have resulted in subsequent leaks. Repairing and replacing the roofing material in these locations will prevent damage to interior structure and allow water to drain properly instead of pooling.

This project is a combination of WTP-22 and WTP-29 (from 2021) of the rate study, as approved by Council.

Budget

	Total	Prior Years	2022	2023	2024	2025	2026
Expenditures	128,000		128,000				
Funding							
Utility Rates & Reserves							
Contrib fr Water R/F	128,000		128,000				
	128,000		128,000				
Funding Total	128,000		128,000				

Municipality of Port Hope

Capital Projects

Project	4003 WTP Roof and drain replacement		
Department	Water		
Version	04 Approved by Council	Year	2022

Attributes		
Attribute	Value	Comment
Attributes		
Department	Water	
Project Type	Betterment	
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)	rate study	WTP-22 and WTP-29
Project Status	To be Completed by End of Year	
Asset Management Plan (AMP)		
Existing Asset ID #	8282	Under WTP envelope - Roof
Replacement Value Identified in AMP (\$)		
Replacement Year Identified in AMP		
Estimated Useful Life (in years)	15-20	
Future Annual Impact on AMP (Cost per year)		
Date		
Start Date	5-Jun-2022	
Completion Date	30-Sep-2022	
To be Completed by Finance		
Approval Status	Approved by Council	
GL Account Number		

Municipality of Port Hope

Capital Projects

Project	4004 Refurbish Lowlift Pump 3		
Department	Water		
Version	04 Approved by Council	Year	2022

Description

Project Description

Refurbish Lowlift Pump 3 and replace wearable components such as bearings, stuffing box, pump shafts and epoxy

Project Justification

Lowlift pump 3 is on a 10 year refurbishment schedule which is due in 2022. The water treatment plant (WTP) relies primarily on 2 VFD pumps (duty/standby) to pump water to the membranes. One pump typically operates at any given time for 16-24 hrs per day. Proper preventative maintenance is crucial in order to prevent catastrophic failure if left unmaintained.

This was identified in the current rate study, as approved by Council.

Budget

	Total	Prior Years	2022	2023	2024	2025	2026
Expenditures	31,200		31,200				
Funding							
Utility Rates & Reserves							
Contrib fr Water R/F	31,200		31,200				
	31,200		31,200				
Funding Total	31,200		31,200				

Municipality of Port Hope

Capital Projects

Project	4004 Refurbish Lowfit Pump 3		
Department	Water		
Version	04 Approved by Council	Year	2022

Attributes		
Attribute	Value	Comment
Attributes		
Department	Water	
Project Type	Betterment	
Replacement Type	N/A	
Tax Levy Allocation	Utilities	
Physical Boundary Location	Urban Port Hope	
Identified in any Council Approved Plan?	Yes	
Identify Council Approved Plan(s)	rate study	Was Operating under 510-500-x-6302 in rate study and now capital
Project Status	To be Completed by End of Year	
Asset Management Plan (AMP)		
Existing Asset ID #	1143	LLP1803
Replacement Value Identified in AMP (\$)		
Replacement Year Identified in AMP		
Estimated Useful Life (in years)	30	
Future Annual Impact on AMP (Cost per year)		
Date		
Start Date	2-May-2022	
Completion Date	30-Jul-2022	
To be Completed by Finance		
Approval Status	Approved by Council	
GL Account Number		

Municipality of Port Hope

Capital Projects

Project	4013 Clarifier Systems Replacement		
Department	Wastewater		
Version	04 Approved by Council	Year	2022

Description

Project Description

Replacement of Clarifier Flights, Chains, Mechanical and Electrical equipment.

Project Justification

Clarifiers are settling tanks built with mechanical means for continuous removal of solids being deposited by sedimentation. A clarifier is generally used to remove solid particulates or suspended solids from liquid for clarification and/or thickening. Concentrated impurities, discharged from the bottom of the tank are known as sludge, while the particles that float to the surface of the liquid are called scum.

The Port Hope sewage treatment plant consists of 3 clarifiers. The 2019 Wastewater Treatment Plant Needs Assessment identified these assets as beyond their useful life and complete replacement is required. Advancements in clarifier technology may be an option and will be investigated as part of this project. (i.e. Variable Frequency Drives) has occurred since the facility was built in 2010.

This project includes three (3) Clarifiers and will be phased over three (3) years i.e. one tank per year.

Budget

	Total	Prior Years	2022	2023	2024	2025	2026
Expenditures	1,103,425	207,400	437,085	458,940			
Funding							
Utility Rates & Reserves							
Contrib fr Wastewater R/F	1,103,425	207,400	437,085	458,940			
Funding Total	1,103,425	207,400	437,085	458,940			

Municipality of Port Hope

Capital Projects

Project	4013 Clarifier Systems Replacement		
Department	Wastewater		
Version	04 Approved by Council	Year	2022

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)	2020 Water and Wastewater Rate Study	WWTP-21
Project Status		
Asset Management Plan (AMP)		
Existing Asset ID #	11084, 11085, 11086	Clarifier #1,2,3
Replacement Value Identified in AMP (\$)	\$645,506	
Replacement Year Identified in AMP	2021, 2022, 2023	
Estimated Useful Life (in years)	10	
Future Annual Impact on AMP (Cost per year)	\$65,000	
Date		
Start Date	11-Jan-2021	
Completion Date	29-Oct-2023	
To be Completed by Finance		
Approval Status	Approved by Council	2021 Budget Approved of \$207,400 for a total project cost request of \$645,506.
GL Account Number	410-000-4013-6900	

Municipality of Port Hope

Capital Projects

Project	4014 Reline On-shore Effluent Outfall Pipe		
Department	Wastewater		
Version	04 Approved by Council	Year	2022

Description

Project Description

Reline on-shore portion of treatment effluent outfall pipe at the Wastewater treatment plant (WWTP)

Project Justification

- Pipe is the original pipe from the 1956 Sewage Treatment Plant.
- Camera inspections completed in 2020 identify significant deterioration. One section has broken pieces. Failure mode has been achieved resulting in a high level of concern for collapse.
- Failure of this pipe produces a certainty of an environmental spill in the protected marsh which it runs under.
- Relining of this infrastructure provides a significant cost reduction versus replacement. Replacement would be necessary if collapse occurs.
- Adjacent collection chamber at Lake Ontario shoreline collapsed in 2017 resulting in an emergency capital project. This pipe was constructed at the same time as the inspection chamber.

Budget

	Total	Prior Years	2022	2023	2024	2025	2026
Expenditures	765,588	51,850	713,738				
Funding							
Utility Rates & Reserves							
Contrib fr Wastewater R/F	765,588	51,850	713,738				
Funding Total	765,588	51,850	713,738				

Municipality of Port Hope

Capital Projects

Project	4014 Reline On-shore Effluent Outfall Pipe		
Department	Wastewater		
Version	04 Approved by Council	Year	2022

Attributes		
Attribute	Value	Comment
Attributes		
Department	Wastewater	
Project Type	Betterment	
Replacement Type	Replacement - Similar	
Tax Levy Allocation	Common	
Physical Boundary Location	Urban Port Hope	
Identified in any Council Approved Plan?	Yes	
Identify Council Approved Plan(s)	2020 Water and Wastewater Rate Study	Project WWTP-11
Project Status		
Asset Management Plan (AMP)		
Existing Asset ID #	N/A	
Replacement Value Identified in AMP (\$)	N/A	
Replacement Year Identified in AMP	N/A	
Estimated Useful Life (in years)	N/A	
Future Annual Impact on AMP (Cost per year)		
Date		
Start Date	31-Jan-2021	
Completion Date	31-Dec-2022	
To be Completed by Finance		
Approval Status	Approved by Council	2021 Budget Approved of \$51,850 for a total project cost request of \$546,520.
GL Account Number	410-000-4014-6900	

Municipality of Port Hope

Capital Projects

Project	4015 Mill St. Pumping Station Conveyance		
Department	Wastewater		
Version	04 Approved by Council	Year	2022

Description

Project Description

Rehabilitate the wastewater conveyance system including the Mill St. pumping station, the original Shuter St. forcemain and Lake St. trunk sewers that were constructed in 1956. The forcemain and trunk sewers included in the project form half of twin system that is necessary to convey flows from the Mill Street Pumping Station to the Port Hope WWTP without overflows during wet weather events. Replace Shuter St. Sanitary Sewer.

Project Justification

A substantial portion of the Port Hope wastewater collection system flows to the Mill Street Pumping Station (PS). From the Mill Street PS flows are conveyed to the wastewater treatment plant (WWTP) by twin (2) 350mm forcemains on Shuter Street discharging to twin 600mm trunk sewers on Lake St. The original forcemain was installed in 1956 and the second was installed in 2000 when the Mill St PS was upgraded. Similarly, the original Lake Street trunk sewer was installed in 1956 and twinned in 2019. The Shuter Street sanitary sewer was installed in 1944 and is located under/adjacent to the 1956 forcemain.

During wet weather events the Mill Street PS is operated at full pumping capacity to keep-up with inflows and limit the potential for sewage overflows at the pumping station. For the Mill Street PS to operate at full capacity flow must be discharged to both forcemains and both trunk sewers on Lake Street must be in service to convey forcemain discharge to the WWTP without overflows from the maintenance holes along Lake Street. The project involves replacement and rehabilitation of the original infrastructure connecting the Mill Street PS to the WWTP. In total, 605 m of existing 350 mm diameter cast iron forcemain and 430 m of 300mm concrete sanitary sewer on Shuter Street will be replaced with a new (larger) 450 mm diameter PVC forcemain and similar sized sanitary sewer both on the same alignment. The road above the existing forcemain and sewer will be restored to meet municipal standards for a local roadway.

Downstream of the forcemain discharge, 1,100 m of existing 600 mm diameter vitrified clay trunk sewer on Lake Street will be relined with a Class IV fully structural cured-in-place liner or otherwise repaired as necessary to ensure longevity of its service life. The final 400 m of the original Lake Street trunk sewer is a 600 mm diameter steel pipe supported above grade on concrete pylons that are failing and require replacement to provide adequate support for the pipe. The above grade pipe will be replaced with a 600 mm PVC sewer direct buried in an earth berm.

Budget

	Total	Prior Years	2022	2023	2024	2025	2026
Expenditures	3,719,608	72,590	1,561,176	2,085,842			
Funding							
Utility Rates & Reserves							
Contrib fr Wastewater R/F	3,719,608	72,590	1,561,176	2,085,842			
Funding Total	3,719,608	72,590	1,561,176	2,085,842			

Municipality of Port Hope

Capital Projects

Project	4015 Mill St. Pumping Station Conveyance		
Department	Wastewater		
Version	04 Approved by Council	Year	2022

Attributes		
Attribute	Value	Comment
Attributes		
Department	Wastewater	
Project Type	Replacement	
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)	2019 Water and Wastewater Rate Study	Project 1076
Project Status		
Asset Management Plan (AMP)		
Existing Asset ID #	Various	See attached file in the Gallery
Replacement Value Identified in AMP (\$)	Various	See attached file in the Gallery
Replacement Year Identified in AMP		
Estimated Useful Life (in years)	Various	See attached file in the Gallery
Future Annual Impact on AMP (Cost per year)		
Date		
Start Date	31-Jan-2021	
Completion Date	31-Dec-2023	
To be Completed by Finance		
Approval Status	Approved by Council	2021 Budget Approved of \$72,590 for a total project cost request of \$2,948,416.
GL Account Number	410-000-4015-6900	

Municipality of Port Hope

Capital Projects

Project	4018 Membrane Replacement Train 1 Modules		
Department	Water		
Version	04 Approved by Council	Year	2022

Description

Project Description

Train 1 Membrane Filtration Replacement

Project Justification

Suez membranes are used for the purpose of filtering water at the Water Treatment Plant, and is an essential component for the production of potable drinking water.

Train 1 membranes are due for replacement based on the end of useful life in 2023. Generally, membranes will last anywhere from 5-8 years based on a wide variety of influences. The most recent reports from Suez show that the membranes are struggling during periods when the lake water is cold (fall-spring). However due to lower than normal demands in 2021, the membranes are expected to last until early 2023.

Trending shows that the membrane permeability has stabilized since the introduction of a trial chemical (PaCl) thus extending the useful life somewhat.

COVID has created challenges with shipping time lines, and the recommendation is to order membranes 4-6 months in advance of the installation date. The membranes should be ordered in August of 2022 in order to receive and install them in January-February of 2023. A 30% deposit is required in August 2022, with the balance due upon delivery.

Budget

	Total	Prior Years	2022	2023	2024	2025	2026
Expenditures	446,000		133,800	312,200			
Funding							
Utility Rates & Reserves							
Contrib fr Water R/F	446,000		133,800	312,200			
	446,000		133,800	312,200			
Funding Total	446,000		133,800	312,200			

Municipality of Port Hope

Capital Projects

Project	4018 Membrane Replacement Train 1 Modules		
Department	Water		
Version	04 Approved by Council	Year	2022

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)	Rate Study	WTP-1
Project Status	Ongoing	
Asset Management Plan (AMP)		
Existing Asset ID #	8280	Train 1 Membrane Modules
Replacement Value Identified in AMP (\$)	\$400,000	
Replacement Year Identified in AMP		
Estimated Useful Life (in years)	7-8	
Future Annual Impact on AMP (Cost per year)		
Date		
Start Date	1-Aug-2022	30% deposit to order 4-6 months in advance of receiving.
Completion Date	28-Feb-2023	Receive shipment in Jan-Feb 2023
To be Completed by Finance		
Approval Status	Approved by Council	
GL Account Number		

Municipality of Port Hope

Capital Projects

Project	5012 Zone 1 Floating Storage		
Department	Water		
Version	04 Approved by Council	Year	2022

Description

Project Description

Review of Zone 1 Floating Storage requirements for the replacement of the Dorset Street West Standpipe.

Project Justification

The existing Dorset Street Standpipe, which provides floating storage for Zone 1 of the Port Hope Drinking Water System (DWS) will require rehabilitation (including interior and exterior coating replacement) in the near future at an approximate cost of \$1,500,000. Given the limited useable capacity of the existing standpipe and the estimated cost of rehabilitation, it is recommended that some consideration be given to replacing the existing standpipe with a Zone 1 elevated tank, similar to the Fox Road Elevated Tank serving Zone 2 of the Port Hope DWS. The Zone 1 elevated tank is an ideal project to put forward for any future rounds of funding as it addresses a definite asset management need re: condition of the Dorset Street Stand Pipe and underground piping, resolves health and safety issues related to access to the below grade areas at Dorset Street and improves security of water supply for Zone 1. A total of \$16,000 has been included in 2021 for a Options and Concept report, followed by \$108,000 in 2022 for the MCEA and \$167,000 for detailed design in 2023. The estimated total cost of a new water tower is \$3,469,000 in 2024.

Several factors should be considered in selecting the optimum location for a gravity based (floating) storage tank including property ownership, ground elevations (topography), geotechnical conditions, available site area and access, site security, aesthetic impacts, natural impacts, social impacts, heritage or cultural impacts, proximity to existing infrastructure (in particular trunk water mains) and distribution system hydraulics.

A general location plan for the potential elevated tank locations has been attached.

Budget

	Total	Prior Years	2022	2023	2024	2025	2026
Expenditures	3,760,000	16,000	108,000	167,000	3,469,000		
Funding							
Utility Rates & Reserves							
Contrib fr Water R/F	3,760,000	16,000	108,000	167,000	3,469,000		
Funding Total	3,760,000	16,000	108,000	167,000	3,469,000		

Municipality of Port Hope

Capital Projects

Project	5012 Zone 1 Floating Storage		
Department	Water		
Version	04 Approved by Council	Year	2022

Attributes		
Attribute	Value	Comment
Attributes		
Department	Water	
Project Type	Replacement	
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)	2019 Water and Wastewater Rate Study	Project number W-1, W-2 and WF-11
Project Status	Ongoing	
Asset Management Plan (AMP)		
Existing Asset ID #	8268	
Replacement Value Identified in AMP (\$)	\$3,000,000	
Replacement Year Identified in AMP		
Estimated Useful Life (in years)	50	
Future Annual Impact on AMP (Cost per year)	\$60,000	
Date		
Start Date	31-Jan-2021	
Completion Date	31-Dec-2024	
To be Completed by Finance		
Approval Status	Approved by Council	2021 Budget Approved of \$16,000 for a total project cost request of \$3,760,000.
GL Account Number	510-000-5012-6900	

