

Municipality of Port Hope

Capital Projects

Project	4022 Fall Restraining Outside Protection Grating Replacement		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Description

Project Description

WWTP Outside Fall Restraining Protection Grating Replacement

Project Justification

The Wastewater Division's Outside Fall Restraining Protection Grating has been assessed in very poor condition and is slated in 2024 for replacement as per the Utility Rate Study.

Very poor condition, grating cracks, broken components, sun damage, and weathering from the winter elements are major factors for 2024 replacement. The current installed Fiberglass Reinforced Plastic (FRP) fall protection grating is worn of its anti-slip coating which poses a safety risk for operators performing daily inspections, maintenance, and sample collection.

In multiple locations the fall protection grating shows signs of substantial cracking posing a safety concern for staff walking on the surface. Failure of the safety grating has the potential for staff to fall into 10-15 ft deep channels filled with raw sewage.

It has been identified that the Fiberglass Reinforced Plastic (FRP) fall protection grating will be replaced with Aluminum fall protection grating. The change in material will extend the gratings estimated useful life and anti-slip safety concern over a prolonged period of time.

Municipality of Port Hope

Capital Projects

Project	4022 Fall Restraining Outside Protection Grating Replacement				
Department	Wastewater				
Version	03 Proposed by Budget	Year	2024		

Budget							
	Total	Prior Years	2024	2025	2026	2027	2028
Expenditures	235,000		235,000				
Funding							
Utility Rates & Reserves							
Contrib fr Wastewater R/F	235,000		235,000				
	235,000		235,000				
Funding Total	235,000		235,000				

Municipality of Port Hope

Capital Projects

Project	4022 Fall Restraining Outside Protection Grating Replacement		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Attributes		
Attribute	Value	Comment
Attributes		
Department	Wastewater	
Project Type	Replacement	
Replacement Type	Replacement - Upgrade	
Tax Levy Allocation		
Physical Boundary Location		
Identified in any Council Approved Plan?	Yes	
Identify Council Approved Plan(s)	Utility Rate Study 2019	
Project Status		
Asset Management Plan (AMP)		
Existing Asset ID #	8284	
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	3-Apr-2024	
Completion Date	31-Jul-2024	
To be Completed by Finance		
Approval Status	Deferred to Future Budget	
GL Account Number		

Municipality of Port Hope

Capital Projects

Project	4022 Fall Restraining Outside Protection Grating Replacement		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Gallery

C:\Users\yulek\Desktop\Fall Restraining Grating.png



Municipality of Port Hope

Capital Projects

Project	4023 Headworks Barscreen System Component Replacement		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Description

Project Description

Headworks Barscreen System Component Replacement

Project Justification

The Wastewater Division's Headworks Barscreens have been assessed in poor condition and are slated in 2024 for replacement as per the Utility Rate Study.

poor conditions, excessive wear of aquagard filter, broken barscreen teeth, stretched drive chain, and expired estimated useful life of motor and gear box are major factors for 2024 replacement.

The Parkson Inc. Barscreen System is specific equipment to WWTP Design and as such, all barscreen component replacement parts are to be sourced from the supplier and installed by certified Parkson Inc. Representatives.

Municipality of Port Hope

Capital Projects

Project	4023 Headworks Barscreen System Component Replacement		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Budget							
	Total	Prior Years	2024	2025	2026	2027	2028
Expenditures	310,000		310,000				
Funding							
Utility Rates & Reserves							
Contrib fr Wastewater R/F	310,000		310,000				
	310,000		310,000				
Funding Total	310,000		310,000				

Municipality of Port Hope

Capital Projects

Project	4023 Headworks Barscreen System Component Replacement		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Attributes		
Attribute	Value	Comment
Attributes		
Department	Wastewater	
Project Type	Replacement	
Replacement Type	Replacement - Similar	
Tax Levy Allocation		
Physical Boundary Location		
Identified in any Council Approved Plan?	Yes	
Identify Council Approved Plan(s)	Utility Rate Study 2019	
Project Status		
Asset Management Plan (AMP)		
Existing Asset ID #	10608 / 10609	
Replacement Value Identified in AMP (\$)		
Replacement Year Identified in AMP		
Estimated Useful Life (in years)	15	
Future Annual Impact on AMP (Cost per year)		
Date		
Start Date	3-Jun-2024	
Completion Date	27-Sep-2024	
To be Completed by Finance		
Approval Status	Deferred to Future Budget	
GL Account Number		

Municipality of Port Hope

Capital Projects

Project	4023 Headworks Barscreen System Component Replacement		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Gallery

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Municipality of Port Hope

Capital Projects

Project	4023 Headworks Barscreen System Component Replacement		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Gallery

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Municipality of Port Hope

Capital Projects

Project	4023 Headworks Barscreen System Component Replacement		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Gallery

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Municipality of Port Hope

Capital Projects

Project	4023 Headworks Barscreen System Component Replacement		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Gallery

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Municipality of Port Hope

Capital Projects

Project	4024 Disinfection System Improvements		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Description

Project Description

Disinfection System Improvements

Project Justification

The Wastewater Division's Sodium Hypochlorite, Sodium Bisulphite, and Aluminum Sulphate chemical systems and its appurtenances have been assessed in poor condition and are slated in 2024 for replacement as per the Utility Rate Study.

In 2020 the Municipalities hired engineering consultant conducted a Disinfection Options Review Study for the Port Hope WWTP. The Disinfection Options Review Study evaluated four potential options which meet the design criteria of the Port Hope WWTP that include Ozonation, Peracetic Acid, Chlorination, and UV disinfection. Chlorination being the most economical option as it is the Port Hope's WWTP original design.

poor condition, H&S chemical odour concerns, chemical panel leaks, chemical panel support corrosion, instrumentation age, pump and valve age, and chemical spill containment storage for the Sodium Hypochlorite, Sodium Bisulphite, and Aluminum Sulphate systems are major factors for 2024 replacement.

Municipality of Port Hope

Capital Projects

Project	4024 Disinfection System Improvements			
Department	Wastewater			
Version	03 Proposed by Budget	Year	2024	

Budget							
	Total	Prior Years	2024	2025	2026	2027	2028
Expenditures	875,000		875,000				
Funding							
Utility Rates & Reserves							
Contrib fr Wastewater R/F	875,000		875,000				
	875,000		875,000				
Funding Total	875,000		875,000				

Municipality of Port Hope

Capital Projects

Project	4024 Disinfection System Improvements		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Attributes		
Attribute	Value	Comment
Attributes		
Department	Wastewater	
Project Type	Replacement	
Replacement Type	Replacement - Similar	
Tax Levy Allocation		
Physical Boundary Location		
Identified in any Council Approved Plan?	Yes	
Identify Council Approved Plan(s)	Utility Rate Study 2019 / Disinfection Options Review Study	
Project Status		
Asset Management Plan (AMP)		
Existing Asset ID #	10624/10625/10627/10633/10755/10756/10757/10758/10759/10760/10761/10762/10763/10764/10765/10766/10767/10768/10769/10770/10771/10772/10773/10774/10775/10776/10777/10778/10779/10780/10781/10782/10783/10784/10785/10786/10787/10788/10789/10790/10791/10792/	maximum entered assets in value coloumn - Sodium Hypochlorite/Sodium Bisulphite/Aluminim Sulphate - Valvles, Pumps, Panel & Panel Supports, Piping, Instrumentation, & Containment Work.
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	4-Mar-2024	
Completion Date	30-Sep-2024	
To be Completed by Finance		
Approval Status	Deferred to Future Budget	
GL Account Number		

Municipality of Port Hope

Capital Projects

Project	4024 Disinfection System Improvements		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

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Capital Projects

Project	4024 Disinfection System Improvements		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Gallery

V:_Staging_Wastewater\Projects C08\Year=2024\Project Type=Capital\Disinfection System Improvements\IMG_1046.JPG



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Capital Projects

Project	4024 Disinfection System Improvements		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Gallery

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Capital Projects

Project	4024 Disinfection System Improvements		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Gallery

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Capital Projects

Project	4024 Disinfection System Improvements		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Gallery

V:_Staging_Wastewater\Projects C08\Year=2024\Project Type=Capital\Disinfection System Improvements\IMG_1049.JPG



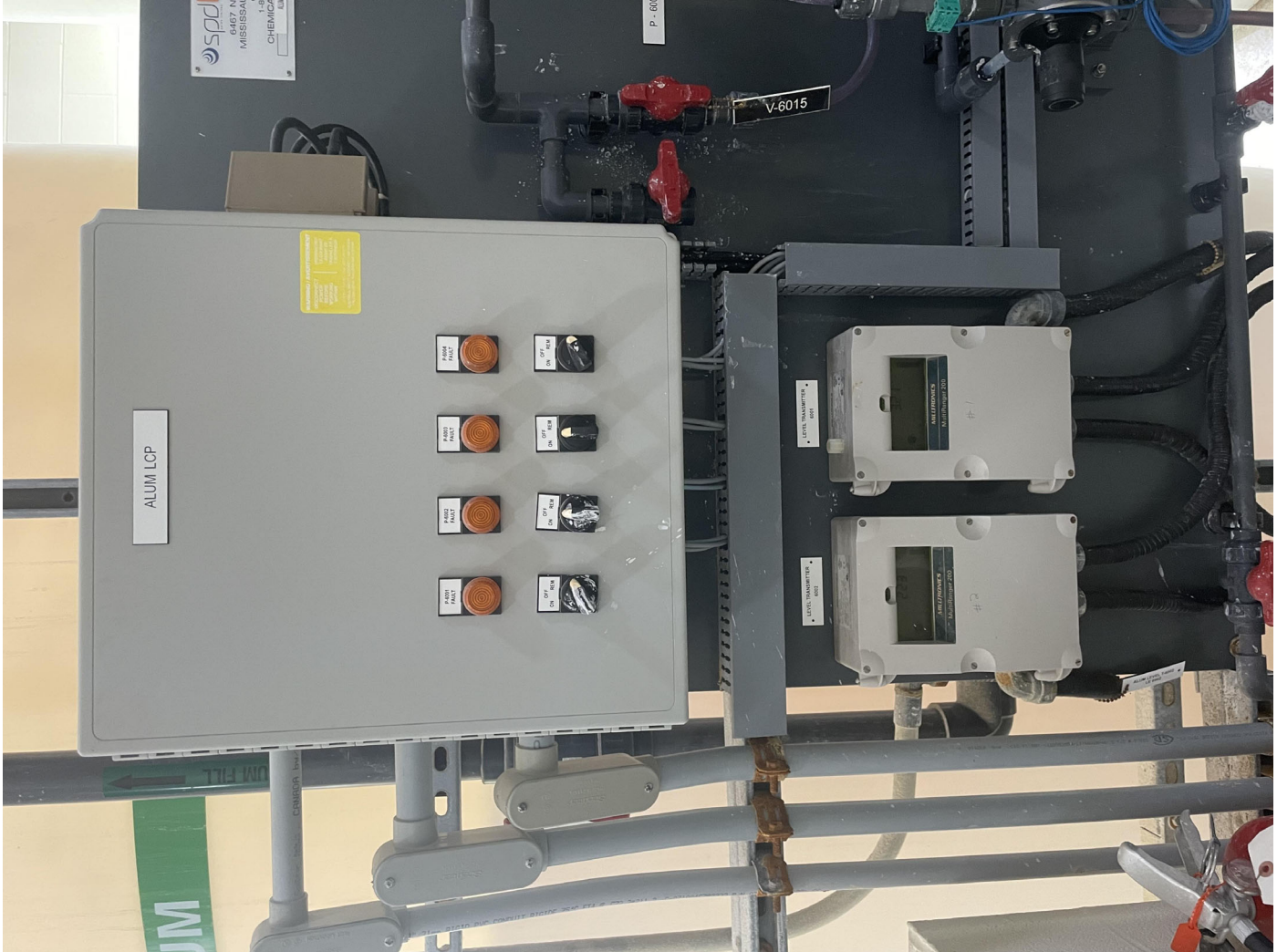
Municipality of Port Hope

Capital Projects

Project	4024 Disinfection System Improvements		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Gallery

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Capital Projects

Project	4024 Disinfection System Improvements		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Gallery

V:_Staging_Wastewater\Projects C08\Year=2024\Project Type=Capital\Disinfection System Improvements\IMG_1051.JPG



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Capital Projects

Project	4024 Disinfection System Improvements		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Gallery

V:_Staging_Wastewater\Projects C08\Year=2024\Project Type=Capital\Disinfection System Improvements\IMG_1052.JPG



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Capital Projects

Project	4024 Disinfection System Improvements		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Gallery

V:_Staging_Wastewater\Projects C08\Year=2024\Project Type=Capital\Disinfection System Improvements\IMG_1053.JPG



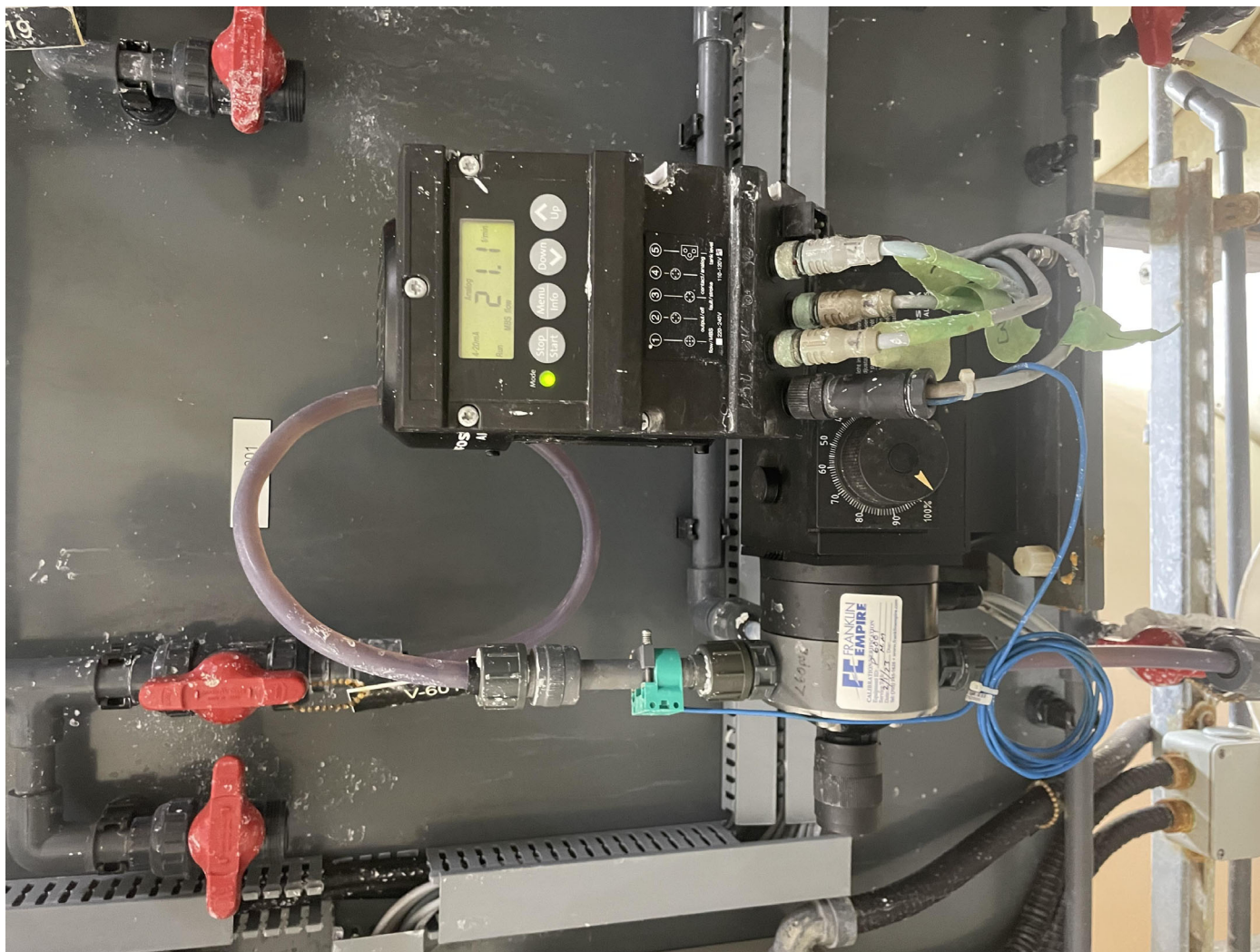
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Capital Projects

Project	4024 Disinfection System Improvements		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Gallery

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Capital Projects

Project	4024 Disinfection System Improvements		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

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Capital Projects

Project	4024 Disinfection System Improvements		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

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Capital Projects

Project	4024 Disinfection System Improvements		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

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V:_Staging_Wastewater\Projects C08\Year=2024\Project Type=Capital\Disinfection System Improvements\IMG_1057.JPG



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Capital Projects

Project	4024 Disinfection System Improvements		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Gallery

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Capital Projects

Project	4024 Disinfection System Improvements		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

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V:_Staging_Wastewater\Projects C08\Year=2024\Project Type=Capital\Disinfection System Improvements\IMG_1059.JPG



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Capital Projects

Project	4024 Disinfection System Improvements		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Gallery

V:_Staging_Wastewater\Projects C08\Year=2024\Project Type=Capital\Disinfection System Improvements\IMG_1060.JPG



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Capital Projects

Project	4024 Disinfection System Improvements		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Gallery

V:_Staging_Wastewater\Projects C08\Year=2024\Project Type=Capital\Disinfection System Improvements\IMG_1061.JPG



Municipality of Port Hope

Capital Projects

Project	4024 Disinfection System Improvements		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Gallery

V:_Staging_Wastewater\Projects C08\Year=2024\Project Type=Capital\Disinfection System Improvements\IMG_1062.JPG



Municipality of Port Hope

Capital Projects

Project	4024 Disinfection System Improvements		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Gallery

V:_Staging_Wastewater\Projects C08\Year=2024\Project Type=Capital\Disinfection System Improvements\IMG_1063.JPG



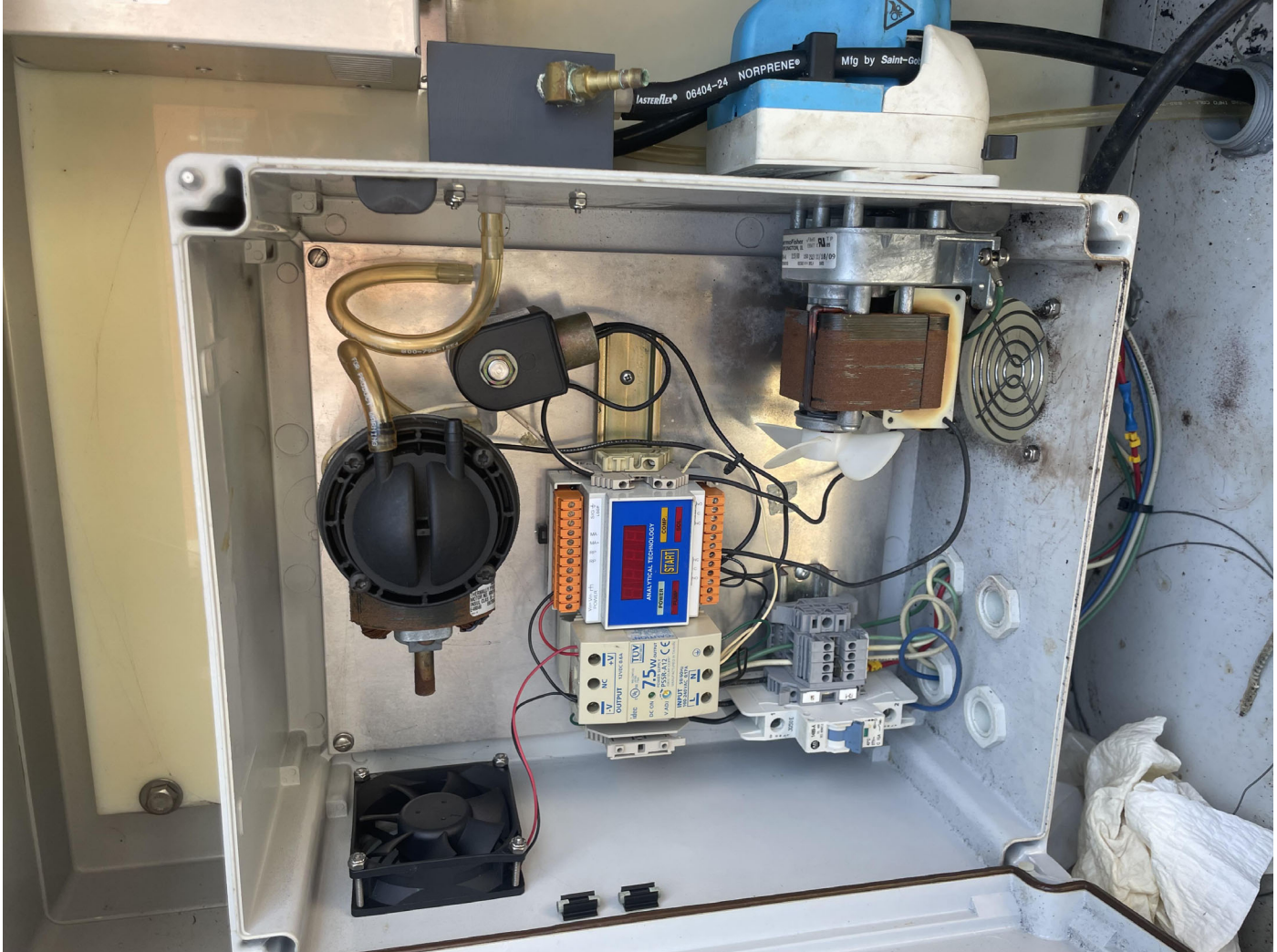
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Capital Projects

Project	4024 Disinfection System Improvements		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Gallery

V:_Staging_Wastewater\Projects C08\Year=2024\Project Type=Capital\Disinfection System Improvements\IMG_1064.JPG



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Capital Projects

Project	4024 Disinfection System Improvements		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Gallery

V:_Staging_Wastewater\Projects C08\Year=2024)\Project Type=Capital)\Disinfection System Improvements\IMG_1065.JPG



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Capital Projects

Project	4024 Disinfection System Improvements		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Gallery

V:_Staging_Wastewater\Projects C08\Year=2024\Project Type=Capital\Disinfection System Improvements\IMG_1066.JPG



Municipality of Port Hope

Capital Projects

Project	4024 Disinfection System Improvements		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Gallery

V:_Staging_Wastewater\Projects C08\Year=2024\Project Type=Capital\Disinfection System Improvements\IMG_1067.JPG



Municipality of Port Hope

Capital Projects

Project	4026 Vactor Truck Purchase		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Description

Project Description

Vactor Truck Purchase

Project Justification

The Wastewater Division has identified the purchase of a Vactor Truck in 2024.

Spill mitigation, poor after hours emergency support, AMP asset condition assessments, annual flushing & CCTV maintenance program, extending the EUL of linear infrastructure, and future WWC CLI-ECA implementation are major factors for 2024 purchase.

Since 2018 to the present date the Wastewater Division in conjunction with the Roads Division have been renting a Vactor Truck for a period of 3-5 months per year. The annual operating budget funds required for the Vactor Truck Rental and contractor support outside of the rental period are expected to cover the cost of purchasing this new equipment and its operation to be completed in-house.

Past sanitary sewer infrastructure failures outside of the Vactor Truck rental period have resulted in prolonged spills to the environment, and maintaining spill mitigation by the use of local septic hauler pumper trucks until contracted Vactor Truck emergency support response. On multiple occasions the Wastewater Division has been at the mercy of after hours emergency support contractors with response times ranging from 2-6 hours.

Municipality of Port Hope

Capital Projects

Project	4026 Vactor Truck Purchase		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Budget							
	Total	Prior Years	2024	2025	2026	2027	2028
Expenditures	750,000		750,000				
Funding							
Tax Levy							
Contrib fr Oper	250,000		250,000				
	250,000		250,000				
Utility Rates & Reserves							
Contrib fr Wastewater R/F	500,000		500,000				
	500,000		500,000				
Funding Total	750,000		750,000				

Municipality of Port Hope

Capital Projects

Project	4026 Vactor Truck Purchase		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Attributes		
Attribute	Value	Comment
Attributes		
Department	Wastewater	
Project Type	New Asset	
Replacement Type		
Tax Levy Allocation		
Physical Boundary Location		
Identified in any Council Approved Plan?	No	
Identify Council Approved Plan(s)		
Project Status		
Asset Management Plan (AMP)		
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	1-Jan-2024	
Completion Date	29-Mar-2024	
To be Completed by Finance		
Approval Status	Deferred to Future Budget	
GL Account Number		

Municipality of Port Hope

Capital Projects

Project	4028 Septage Receiving System Rehabilitation		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Description

Project Description

Septage Receiving System Rehabilitation

Project Justification

The Wastewater Division's Septage Receiving System is slated for rehabilitation in 2024 as per the Utility Rate Study.

Poor condition of Utility Power Supply (UPS), Programmable Logic Controller (PLC), septic hauler swipe card billing system, screw press compactor, motor, gear drive, and instrumentation are major factors for 2024 rehabilitation.

The ACG Envirocan Inc., JWC Muffin Monster septage receiving system is specific to the WWTP design and as such, all septage receiving rehabilitation parts and components are to be sourced and installed by certified JWC Muffin Monster Representatives.

Municipality of Port Hope

Capital Projects

Project	4028 Septage Receiving System Rehabilitation				
Department	Wastewater				
Version	03 Proposed by Budget	Year	2024		

Budget							
	Total	Prior Years	2024	2025	2026	2027	2028
Expenditures	290,000		290,000				
Funding							
Utility Rates & Reserves							
Contrib fr Wastewater R/F	290,000		290,000				
	290,000		290,000				
Funding Total	290,000		290,000				

Municipality of Port Hope

Capital Projects

Project	4028 Septage Receiving System Rehabilitation		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Attributes		
Attribute	Value	Comment
Attributes		
Department	Wastewater	
Project Type	Replacement	
Replacement Type	Replacement - Similar	
Tax Levy Allocation		
Physical Boundary Location		
Identified in any Council Approved Plan?	Yes	
Identify Council Approved Plan(s)	2019 Utility Rate Study	
Project Status		
Asset Management Plan (AMP)		
Existing Asset ID #	10607/10999/11027/11028/11029/11030	
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	4-Mar-2024	
Completion Date	31-Oct-2024	
To be Completed by Finance		
Approval Status	Deferred to Future Budget	
GL Account Number		

Municipality of Port Hope

Capital Projects

Project	4028 Septage Receiving System Rehabilitation		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

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Capital Projects

Project	4028 Septage Receiving System Rehabilitation		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Gallery

V:_Staging_Wastewater\Projects C08\Year=2024\Project Type=Capital\Septage Receiving System Rehabilitation\IMG_1036.JPG



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Capital Projects

Project	4028 Septage Receiving System Rehabilitation		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Gallery

V:_Staging_Wastewater\Projects C08\Year=2024\Project Type=Capital\Septage Receiving System Rehabilitation\IMG_1037.JPG



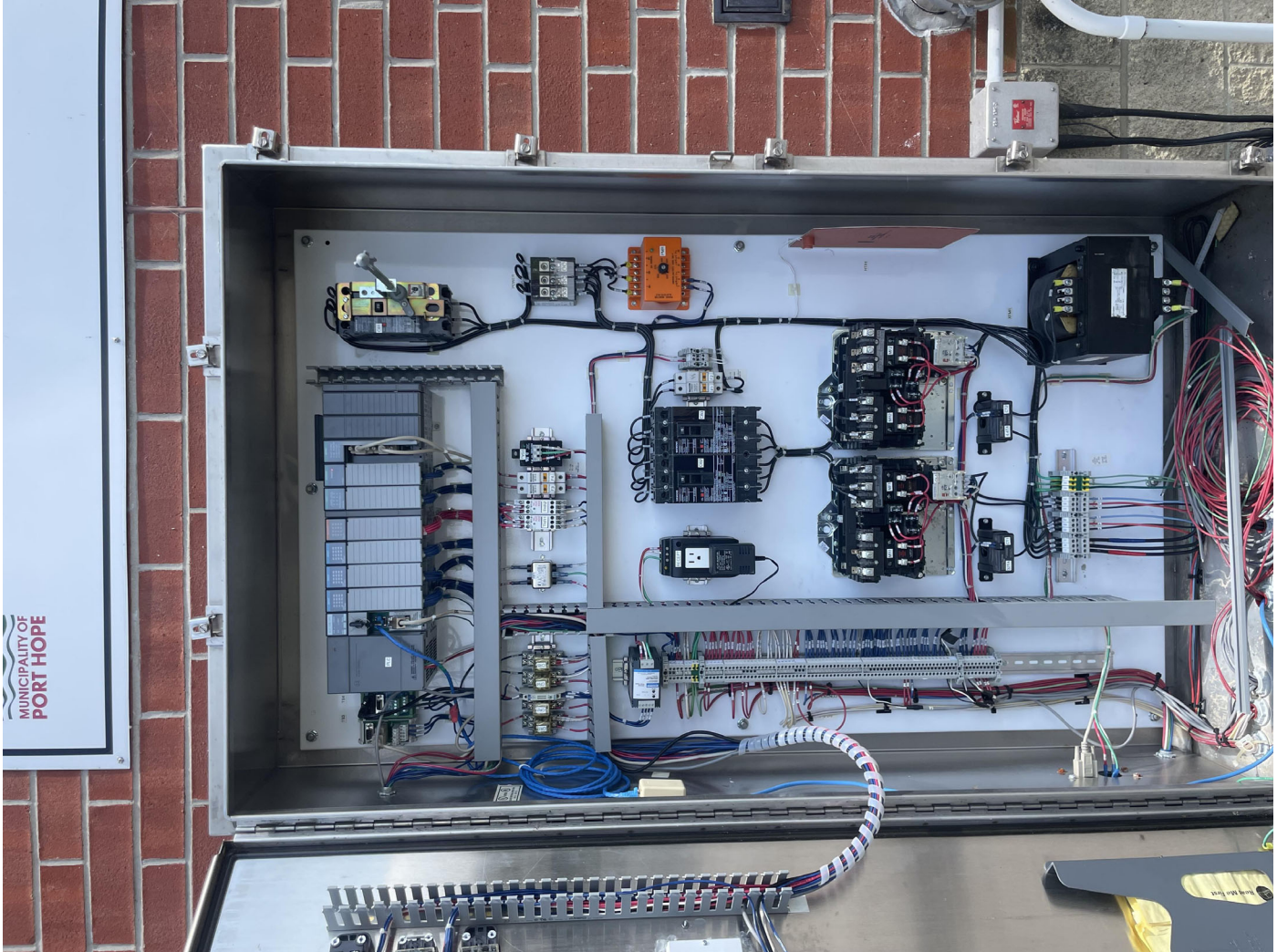
Municipality of Port Hope

Capital Projects

Project	4028 Septage Receiving System Rehabilitation		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Gallery

V:_Staging_Wastewater\Projects C08\Year=2024\Project Type=Capital\Septage Receiving System Rehabilitation\IMG_1038.JPG



Municipality of Port Hope

Capital Projects

Project	4028 Septage Receiving System Rehabilitation		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

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V:_Staging_Wastewater\Projects C08\Year=2024\Project Type=Capital\Septage Receiving System Rehabilitation\IMG_1039.JPG



Municipality of Port Hope

Capital Projects

Project	4028 Septage Receiving System Rehabilitation		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

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V:_Staging_Wastewater\Projects C08\Year=2024\Project Type=Capital\Septage Receiving System Rehabilitation\IMG_1040.JPG



Municipality of Port Hope

Capital Projects

Project	4028 Septage Receiving System Rehabilitation		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

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V:_Staging_Wastewater\Projects C08\Year=2024\Project Type=Capital\Septage Receiving System Rehabilitation\IMG_1041.JPG



Municipality of Port Hope

Capital Projects

Project	4028 Septage Receiving System Rehabilitation		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Gallery

V:_Staging_Wastewater\Projects C08\Year=2024\Project Type=Capital\Septage Receiving System Rehabilitation\IMG_1042.JPG



Municipality of Port Hope

Capital Projects

Project	4028 Septage Receiving System Rehabilitation		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Gallery

V:_Staging_Wastewater\Projects C08\Year=2024\Project Type=Capital\Septage Receiving System Rehabilitation\IMG_1043.JPG



Municipality of Port Hope

Capital Projects

Project	4028 Septage Receiving System Rehabilitation		
Department	Wastewater		
Version	03 Proposed by Budget	Year	2024

Gallery

V:_Staging_Wastewater\Projects C08\Year=2024\Project Type=Capital\Septage Receiving System Rehabilitation\IMG_1044.JPG

