

Stormwater Separation Program

160.4

Priority Score: **65.60**

Project Type: Rehabilitation
Growth Related?: No
Estimated Useful Life (years): 50
Future Replacement Cost: Enter Replacement Cost & Year of Replacement

Priority Level: High
Department: Public Works and Engineering
Staff Contact: Manager of Public Works
Location/Coordinates: Various

Cash Flow Projection:	2024	2025	2026
Studies			
In House Engineering			
Design or Engineering			
Communication / Signage			
Construction / Contractor	\$ 25,000	\$ 30,000	\$ 80,000
Materials			
Equipment/Misc			
Contingency			
Total	\$ 25,000	\$ 30,000	\$ 80,000

Description and Rationale:

Inflow and infiltration reduction works (aka stormwater separation) are undertaken with the funds set aside for this program and can include separation of stormwater catchbasins, public or private, which contribute to the extraneous flows, roof leader and sump pump diversion, and other works selected on a priority basis to reduce inflow and infiltration.

Currently, this years budget is tentatively focused on two significant roofs; the Post Office, and the Roxy theatre.

Costs Incurred to 2023 Year End \$ 0

Impact on Operating Budget \$ 0

Total Project Budget: \$ 135,000

Schedule:

Construction Start Date: 06/01/2024

Substantial Completion or purchase date: 12/31/2026

Funding Sources:

Waste Water Rates \$ 135,000
 Please Select
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 Capital Reserve \$ 0

Attach Images: 160.4.JPG

Opens the attachment panel. Double click files to view images attached. Maximum Size: 10MB

Justification for Matrix Values

Score 0 - 5

Justification / Rationale for Rating

People	How many people will be directly impacted by the project?	3	This would affect the local serviced area
Health and Safety	What is the risk to the health and safety of the public or Staff if the project does not proceed?	4	Combined Sewer Overflows are a consequence of stormwater connections
Legislation	Is the project required for legislative/regulatory compliance?	5	Ontario Water Resources Act
Asset Management	Is the project a high priority for replacement in the asset management plan.	3	This is an ongoing program in the 10 year plan
Operational Performance	If the project proceeds (or fails to proceed), what will be the impact on operational performance? Comment on any impact on operating costs, staff time and maintenance.	5	Combined Sewer Overflows are a result of stormwater connections, but also very high flows in the system can result in surcharging of the system which results in sewer backups during very high-flow events.
Financing	Can the cost of investment be leveraged or are there partnership funds available?	1	No
Environment	Does the project address needs impacted by climate change?	4	Wet weather flows are now more frequent; this is a very relevant factor for this project
Socio-Economic Factors	To what degree does the project support diversity and inclusion Initiatives?	1	N/A
Aesthetic Value	To what degree is the aesthetic value of the asset improved?	1	None
Strategic Plan	Does the project help to meet a Key Result in the Strategic Plan?	1	N/A : Core Service
Public Input	Has the project been identified through public engagement?	1	None

Collection System Capital Reinvestment

210.1

Priority Score: **67.60**

Project Type: Rehabilitation

Growth Related?: No

Estimated Useful Life (years): 50

Future Replacement Cost: Enter Replacement Cost & Year of Replacement

Priority Level: High

Department: Public Works and Engineering

Staff Contact: Manager of Public Works

Location/Coordinates: Various

Cash Flow Projection:	2024	2025	2026 +
Studies			
In House Engineering			
Design or Engineering			
Communication / Signage			
Construction / Contractor	\$ 350,000	\$ 350,000	\$ 1,050,000
Materials			
Equipment/Misc			
Contingency			
Total	\$ 350,000	\$ 350,000	\$ 1,050,000

Description and Rationale:

This project is to continue with the rehabilitation of the sanitary sewer infrastructure with a focus on sanitary sewers, as well as manhole rehabilitation. This rehabilitation will be conducted through “cured in place pipe” (CIPP) technology. The city is planning to re-tender a 3 year contract to continue to rehabilitate sanitary sewer and manholes.

Costs Incurred to 2023 Year End

Impact on Operating Budget \$ 0 \$ 0 \$ 0

Total Project Budget: \$ 1,750,000

Schedule:

Construction Start Date: 06/01/2024

Substantial Completion or purchase date: 12/31/2026

Funding Sources:

Waste Water Rates \$ 1,750,000

Please Select

Please Select

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Please Select

Capital Reserve \$ 0

Attach Images:

Opens the attachment panel. Double click files to view images attached. Maximum Size: 10MB

Justification for Matrix Values

Score 0 - 5

Justification / Rationale for Rating

People	How many people will be directly impacted by the project?	5	This would typically affect people in the project area which is usually one block at a time. But the program is City-wide
Health and Safety	What is the risk to the health and safety of the public or Staff if the project does not proceed?	5	Sewer bypasses from collapsed sewer have resulted.
Legislation	Is the project required for legislative/regulatory compliance?	5	Ontario Water Resources Act
Asset Management	Is the project a high priority for replacement in the asset management plan.	3	This has been identified in the 10 year plan, as part of a multi-year program.
Operational Performance	If the project proceeds (or fails to proceed), what will be the impact on operational performance? Comment on any impact on operating costs, staff time and maintenance.	4	Sewer backups consume considerable public sector and private sector resources.
Financing	Can the cost of investment be leveraged or are there partnership funds available?	1	No
Environment	Does the project address needs impacted by climate change?	3	Wet weather flows are now more frequent; this is a somewhat relevant factor for this project
Socio-Economic Factors	To what degree does the project support diversity and inclusion Initiatives?	1	N/A
Aesthetic Value	To what degree is the aesthetic value of the asset improved?	1	None
Strategic Plan	Does the project help to meet a Key Result in the Strategic Plan?	1	N/A : Core Service
Public Input	Has the project been identified through public engagement?	1	None

Minor Pumping Station Rehab

210.2

Priority Score: **61.00**

Project Type: Rehabilitation
Growth Related?: No
Estimated Useful Life (years): 50
Future Replacement Cost: Enter Replacement Cost & Year of Replacement

Priority Level: High
Department: Public Works and Engineering
Staff Contact: Manager of Public Works
Location/Coordinates: 27th St Sewage Pumping Station

Cash Flow Projection:	2024	2025	2026
Studies			
In House Engineering			
Design or Engineering			
Communication / Signage			
Construction / Contractor	\$ 200,000		
Materials			
Equipment/Misc			
Contingency			
Total	\$ 200,000	\$ 0	\$ 0

Description and Rationale:
 The 27th Street Sewage Pumping Station has a number of issues which need to be addressed through considerable rehabilitation: (1) Very significant electrical deficiencies and (2) physical condition of station (3) pumps and associated mechanical.
 The attached photo shows the ideal pumping station configuration; it does not represent the existing station.

Costs Incurred to 2023 Year End

Impact on Operating Budget \$ 0 \$ 0 \$ 0

Total Project Budget: \$ 200,000

Schedule:
 Construction Start Date: 06/01/2024
 Substantial Completion or purchase date: 12/31/2024

Funding Sources:

Waste Water Rates	\$ 200,000
Please Select	
Please Select	
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Capital Reserve	\$ 0

Attach Images: 210.2.JPG

Opens the attachment panel. Double click files to view images attached. Maximum Size: 10MB

Justification for Matrix Values

Score 0 - 5

Justification / Rationale for Rating

People	How many people will be directly impacted by the project?	2	This would typically affect people in the project area
Health and Safety	What is the risk to the health and safety of the public or Staff if the project does not proceed?	5	Sewer bypasses and backups from failed pumps
Legislation	Is the project required for legislative/regulatory compliance?	5	Ontario Water Resources Act
Asset Management	Is the project a high priority for replacement in the asset management plan.	3	This has been identified in the 10 year plan, as part of a multi-year program
Operational Performance	If the project proceeds (or fails to proceed), what will be the impact on operational performance? Comment on any impact on operating costs, staff time and maintenance.	4	This station requires frequent callouts to pull the pump for maintenance; since there is only one pump, any issue must be addressed quickly and often on overtime.
Financing	Can the cost of investment be leveraged or are there partnership funds available?	1	No
Environment	Does the project address needs impacted by climate change?	2	Wet weather flows are now more frequent; this is only a somewhat relevant factor for this project
Socio-Economic Factors	To what degree does the project support diversity and inclusion Initiatives?	1	N/A
Aesthetic Value	To what degree is the aesthetic value of the asset improved?	1	None
Strategic Plan	Does the project help to meet a Key Result in the Strategic Plan?	1	N/A : Core Service
Public Input	Has the project been identified through public engagement?	1	None

Clarifier Mechanical Maintenance

220.1

Priority Score: **60.00**

Project Type: Rehabilitation
Growth Related?: No
Estimated Useful Life (years): 15
Future Replacement Cost: Enter Replacement Cost & Year of Replacement

Priority Level: High
Department: Public Works and Engineering
Staff Contact: Manager of Public Works
Location/Coordinates: Wastewater Treatment Plant

Cash Flow Projection:	2026	2027	2028
Studies			
In House Engineering			
Design or Engineering			
Communication / Signage			
Construction / Contractor	\$ 50,000		\$ 50,000
Materials			
Equipment/Misc			
Contingency			
Total	\$ 50,000	\$ 0	\$ 50,000

Description and Rationale:

Clarifier Mechanical Maintenance is required on an as-needed basis as wear and tear on the components progresses, but typically significant work is required every 3 to 5 years.

The budget for 2024 is for purchasing and replacing specific worn items, and and to stock spare parts (chain, flights, brackets, wear shoes, wear strips).

Costs Incurred to 2025 Year End \$ 50,000

Impact on Operating Budget \$ 0

Total Project Budget: \$ 150,000

Schedule:

Construction Start Date: 05/01/2026

Substantial Completion or purchase date: 09/30/2028

Funding Sources:

Waste Water Rates \$ 150,000
 Please Select
 Please Select
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 Please Select
 Capital Reserve \$ 0

Attach Images: 220.1.JPG

Opens the attachment panel. Double click files to view images attached. Maximum Size: 10MB

Justification for Matrix Values

Score 0 - 5

Justification / Rationale for Rating

People	How many people will be directly impacted by the project?	5	This can affect the wastewater treatment train which affects the entire City.
Health and Safety	What is the risk to the health and safety of the public or Staff if the project does not proceed?	3	This poses a risk to proper sewage treatment.
Legislation	Is the project required for legislative/regulatory compliance?	5	Ontario Water Resources Act.
Asset Management	Is the project a high priority for replacement in the asset management plan.	4	This has been identified in the 10 year plan.
Operational Performance	If the project proceeds (or fails to proceed), what will be the impact on operational performance? Comment on any impact on operating costs, staff time and maintenance.	3	A failure of a clarifier would decrease capacity by 25%, for an extended time while repairs are completed, which would be a concern if concurrent with high flows.
Financing	Can the cost of investment be leveraged or are there partnership funds available?	1	No opportunity for partnership or grant funding. Funded through wastewater rates.
Environment	Does the project address needs impacted by climate change?	3	Wet weather flows are now more frequent.
Socio-Economic Factors	To what degree does the project support diversity and inclusion Initiatives?	1	The Project does not eliminate an existing public space.
Aesthetic Value	To what degree is the aesthetic value of the asset improved?	1	Asset has no aesthetic value (i.e. is underground, is not visible).
Strategic Plan	Does the project help to meet a Key Result in the Strategic Plan?	1	Project supports core service delivery.
Public Input	Has the project been identified through public engagement?	0	Has not been identified by the public.

WWTP Instrumentation/SCADA

220.2

Priority Score: **66.40**

Project Type: Rehabilitation
Growth Related?: No
Estimated Useful Life (years): 5
Future Replacement Cost: Enter Replacement Cost & Year of Replacement

Priority Level: High
Department: Public Works and Engineering
Staff Contact: Manager of Public Works
Location/Coordinates: Wastewater Treatment Plant

Cash Flow Projection:	2024	2025	2026
Studies			
In House Engineering			
Design or Engineering			
Communication / Signage			
Construction / Contractor			
Materials	\$ 40,000		
Equipment/Misc			
Contingency			
Total	\$ 40,000	\$ 0	\$ 0

Costs Incurred to 2023 Year End

Impact on Operating Budget \$ 0 \$ 0 \$ 0

Total Project Budget: \$ 40,000

Schedule:
 Construction Start Date: 05/01/2024
 Substantial Completion or purchase date: 09/30/2024

Funding Sources:
 Waste Water Rates \$ 40,000
 Please Select
 Please Select
 Please Select
 Please Select
 Capital Reserve \$ 0

Description and Rationale:
 There is a need to replace electrical and SCADA equipment which have a short lifespan.
 The equipment that was installed in 2016 and 2017 which requires replacement: the Uninterrupted Power Supplies (UPS's; 18 units) for the Programmable Logic Controllers (PLC's), as well as some SCADA View Nodes. These are on backorder due to supply chain issues and are carried over from 2022.
 Other work totalling \$190,000 is in the ten year plan in 2024 and 2027. Exact timing may vary. This is currently being evaluated.

Attach Images: 220.2.JPG

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Justification for Matrix Values

Score 0 - 5

Justification / Rationale for Rating

People	How many people will be directly impacted by the project?	5	This can affect the wastewater treatment train which affects the entire City
Health and Safety	What is the risk to the health and safety of the public or Staff if the project does not proceed?	4	PLC failure poses a considerable risk to proper sewage treatment
Legislation	Is the project required for legislative/regulatory compliance?	5	Ontario Water Resources Act
Asset Management	Is the project a high priority for replacement in the asset management plan.	4	These are identified on the 10 year plan
Operational Performance	If the project proceeds (or fails to proceed), what will be the impact on operational performance? Comment on any impact on operating costs, staff time and maintenance.	4	PLC failure would result in the plant control system "Crashing" and sewage treatment could partially or entirely cease, (There are alarms in place to alert the operators of this outcome)
Financing	Can the cost of investment be leveraged or are there partnership funds available?	1	No
Environment	Does the project address needs impacted by climate change?	2	Wet weather flows are now more frequent but this is not as relevant a factor for this project
Socio-Economic Factors	To what degree does the project support diversity and inclusion Initiatives?	1	N/A
Aesthetic Value	To what degree is the aesthetic value of the asset improved?	1	None
Strategic Plan	Does the project help to meet a Key Result in the Strategic Plan?	1	N/A: Core Service
Public Input	Has the project been identified through public engagement?	1	None

Process Mechanical I/C Biogas Equipment

220.3

Priority Score: 68.40

Project Type: Rehabilitation

Growth Related?: No

Estimated Useful Life (years): 5

Future Replacement Cost: Enter Replacement Cost & Year of Replacement

Priority Level: High

Department: Public Works and Engineering

Staff Contact: Manager of Public Works

Location/Coordinates: Wastewater Treatment Plant

Cash Flow Projection:	2024	2025	2026
Studies			
In House Engineering			
Design or Engineering			
Communication / Signage			
Construction / Contractor			
Materials	\$ 40,000		
Equipment/Misc			
Contingency			
Total	\$ 40,000	\$ 0	\$ 0

Description and Rationale:

In 2024 it is intended to perform needed work on some of the biogas system safety components. It is necessary to replace worn digester gas safety devices. Some was performed in 2022 but more is outstanding, and due in 2024.

Costs Incurred to 2023 Year End

Impact on Operating Budget \$ 0 \$ 0 \$ 0

Total Project Budget: \$ 40,000

Schedule:

Construction Start Date: 05/01/2024

Substantial Completion or purchase date: 09/30/2024

Funding Sources:

Waste Water Rates \$ 40,000

Please Select

Please Select

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Capital Reserve \$ 0

Attach Images:

220.3.JPG

Opens the attachment panel. Double click files to view images attached. Maximum Size: 10MB

Justification for Matrix Values

Score 0 - 5

Justification / Rationale for Rating

People	How many people will be directly impacted by the project?	5	This can affect the wastewater treatment train which affects the entire City
Health and Safety	What is the risk to the health and safety of the public or Staff if the project does not proceed?	5	Components to be replaced include very significant pressure relief valves on the Digester. Failure could pose a significant risk.
Legislation	Is the project required for legislative/regulatory compliance?	5	Technical Standards and Safety Act (TSSA)
Asset Management	Is the project a high priority for replacement in the asset management plan.	4	These are identified on the 10 year plan
Operational Performance	If the project proceeds (or fails to proceed), what will be the impact on operational performance? Comment on any impact on operating costs, staff time and maintenance.	4	Failure of a portion of the biogas system could result in an unsafe condition, or improper operation of the boiler system and subsequent failure to heat the biosolids for digestion, and digestion failure.
Financing	Can the cost of investment be leveraged or are there partnership funds available?	1	No
Environment	Does the project address needs impacted by climate change?	1	Wet weather flows are now more frequent but this is not a relevant factor for this project
Socio-Economic Factors	To what degree does the project support diversity and inclusion Initiatives?	1	N/A
Aesthetic Value	To what degree is the aesthetic value of the asset improved?	1	None
Strategic Plan	Does the project help to meet a Key Result in the Strategic Plan?	1	N/A : Core Service
Public Input	Has the project been identified through public engagement?	1	None

Process Mechanical (2026)

220.3

Priority Score: **66.00**

Project Type: Rehabilitation
Growth Related?: No
Estimated Useful Life (years): 15
Future Replacement Cost: Enter Replacement Cost & Year of Replacement

Priority Level: High
Department: Public Works and Engineering
Staff Contact: Manager of Public Works
Location/Coordinates: Wastewater Treatment Plant

Cash Flow Projection:	2026	2027	2028
Studies			
In House Engineering			
Design or Engineering			
Communication / Signage			
Construction / Contractor	\$ 220,000		
Materials			
Equipment/Misc			
Contingency			
Total	\$ 220,000	\$ 0	\$ 0

Costs Incurred to 2025 Year End \$ 0

Impact on Operating Budget \$ 0

Total Project Budget: \$ 220,000

Schedule:
 Construction Start Date: 04/01/2026
 Substantial Completion or purchase date: 12/31/2026

Funding Sources:

Waste Water Rates	\$ 220,000
Please Select	
Please Select	
Please Select	
Please Select	
Capital Reserve	\$ 0

Description and Rationale:

The BAF process requires 2 small and 1 large primary effluent pump to run at high flows. Therefore when a small pump is out of service for repairs, all the required flow cannot be pumped through the BAF and a plant "Bypass" will occur blending treated effluent with primary effluent, thus not meeting our ECA requirements. To remain compliant in this situation a spare small primary effluent pump would need to be purchased to be used when one is being repaired.

The plant has 2 boilers to heat the buildings and the primary digester. One boiler burns the methane gas retrieved from the primary digester. Methane is corrosive in comparison to natural gas which in turn requires more maintenance for boilers such as fire tube replacement.

There are hundreds of valves, actuators, solenoids, and safety devices such as pressure relief and bio-gas thermal valves at the plant. Although these are maintained through the maintenance program, they are wearing items that must be rebuilt and replaced as required.

Attach Images: mech boilers.jpg; Mech BAF Pumps.jpg; mech air valves.jpg

Opens the attachment panel. Double click files to view images attached. Maximum Size: 10MB

Justification for Matrix Values

Score 0 - 5

Justification / Rationale for Rating

People	How many people will be directly impacted by the project?	5	This can affect the wastewater treatment train which affects the entire City.
Health and Safety	What is the risk to the health and safety of the public or Staff if the project does not proceed?	5	Components to be replaced include very significant pressure relief valves on the Digester. Failure could pose a significant risk.
Legislation	Is the project required for legislative/regulatory compliance?	5	Technical Standards and Safety Act (TSSA).
Asset Management	Is the project a high priority for replacement in the asset management plan.	3	This has been identified in the 10 year plan.
Operational Performance	If the project proceeds (or fails to proceed), what will be the impact on operational performance? Comment on any impact on operating costs, staff time and maintenance.	4	Failure of a portion of the biogas system could result in an unsafe condition, or improper operation of the boiler system and digester failure. Air valve failure can result in failure to aerate the cell(s) which could result in secondary process failure.
Financing	Can the cost of investment be leveraged or are there partnership funds available?	1	No opportunity for partnership or grant funding. Funded through wastewater rates.
Environment	Does the project address needs impacted by climate change?	1	Wet weather flows are now more frequent but this is not an overly relevant factor for this project.
Socio-Economic Factors	To what degree does the project support diversity and inclusion Initiatives?	1	The Project does not eliminate an existing public space.
Aesthetic Value	To what degree is the aesthetic value of the asset improved?	1	Asset has no aesthetic value (i.e. is underground, is not visible).
Strategic Plan	Does the project help to meet a Key Result in the Strategic Plan?	1	Project supports core service delivery.
Public Input	Has the project been identified through public engagement?	0	Has not been identified by the public.

Intermediate Bar Screens

220.4

Priority Score: **64.40**

Project Type: New Asset

Growth Related?: No

Estimated Useful Life (years): 25

Future Replacement Cost: Enter Replacement Cost & Year of Replacement

Priority Level: High

Department: Public Works and Engineering

Staff Contact: Manager of Public Works

Location/Coordinates: Wastewater Treatment Plant

Cash Flow Projection:	2024	2025	2026
Studies			
In House Engineering			
Design or Engineering			
Communication / Signage			
Construction / Contractor	\$ 900,000	\$ 900,000	
Materials			
Equipment/Misc			
Contingency			
Total	\$ 900,000	\$ 900,000	\$ 0

Costs Incurred to 2023 Year End

Impact on Operating Budget \$ 0 \$ 0 \$ 0

Total Project Budget: \$ 1,800,000

Schedule:

Construction Start Date: 09/01/2024

Substantial Completion or purchase date: 12/31/2025

Funding Sources:

Waste Water Rates \$ 1,800,000

Please Select

Please Select

Please Select

Please Select

Capital Reserve \$ 0

Description and Rationale:

The existing Bar Screens at the Wastewater Treatment Plant provide pre-treatment removal of coarse materials before grit removal and clarification. Materials removed include rags, sticks, and other debris, which would damage downstream components if not removed. The biosolids removed in the clarifiers are pumped to the digester for further treatment, and then to storage tanks. However, because initial screening does not remove 100% of the coarse material, over time, rags and other items build up in the digester and storage tanks and need to be removed in a cleanout, which is an expensive process; \$150,000 + for a storage tank and \$300,000 + for the digester.

In 2021 the digester cleanout which was undertaken confirmed that excess materials are passing through the screening process, affecting the digestion process, and impacting cleanout costs

New Intermediate fine screening equipment, located between the grit building and the clarifiers, would mitigate the following risks:

- a-The decreased frequency of digester and storage tank cleanouts, which has an estimable monetary effect.
- b-The impacts the trash has had on our mechanical equipment, like pumps, drive sprockets, motors, drive chain, etc.
- c-The staff time required to deal with breakdowns in b above.
- d-The risk of digester failure due to trash content preventing recirculation (which had almost happened on previous occasions)
- e-The risk of rejection by one or more farmers, of our material.
- f-Rejection of material by Lystech, who receives our material during a cleanout,
- g-The risk to our BAF media, which would cost approximately \$1M.

Attach Images:

220.4.JPG

Opens the attachment panel. Double click files to view images attached. Maximum Size: 10MB

Justification for Matrix Values

Score 0 - 5

Justification / Rationale for Rating

People	How many people will be directly impacted by the project?	5	This can affect the wastewater treatment train which affects the entire City
Health and Safety	What is the risk to the health and safety of the public or Staff if the project does not proceed?	3	Failure of the bar screen system can have a significant environmental and health and safety impact if treatment failures result
Legislation	Is the project required for legislative/regulatory compliance?	5	Ontario Water Resources Act, Nutrient Management Act
Asset Management	Is the project a high priority for replacement in the asset management plan.	4	These are identified on the 10 year plan
Operational Performance	If the project proceeds (or fails to proceed), what will be the impact on operational performance? Comment on any impact on operating costs, staff time and maintenance.	4	Failure of the bar screen system poses a risk to both biological processes at the plant; digestion, and the BAF.
Financing	Can the cost of investment be leveraged or are there partnership funds available?	1	N/A
Environment	Does the project address needs impacted by climate change?	3	Wet weather flows are now more frequent; this is a relevant factor for this project since higher flows carry a higher debris load
Socio-Economic Factors	To what degree does the project support diversity and inclusion Initiatives?	1	N/A
Aesthetic Value	To what degree is the aesthetic value of the asset improved?	1	None
Strategic Plan	Does the project help to meet a Key Result in the Strategic Plan?	1	N/A : Core Service
Public Input	Has the project been identified through public engagement?	1	None

Process Electrical (2026)

230.1

Priority Score: **73.90**

Project Type: Rehabilitation
Growth Related?: No
Estimated Useful Life (years): 15
Future Replacement Cost: Enter Replacement Cost & Year of Replacement

Priority Level: Very High
Department: Public Works and Engineering
Staff Contact: Manager of Public Works
Location/Coordinates: Wastewater Treatment Plant

Cash Flow Projection:	2026	2027	2028
Studies			
In House Engineering			
Design or Engineering			
Communication / Signage			
Construction / Contractor			
Materials			
Equipment/Misc	\$ 45,000		
Contingency			
Total	\$ 45,000	\$ 0	\$ 0

Description and Rationale:

The service life of the BAF Blower VFD's will be near their end and replacements will need to be purchased and installed.

Other aging electrical equipment will need assessed and replaced, or spare parts purchased, as required.

Costs Incurred to 2025 Year End \$ 0

Impact on Operating Budget \$ 0

Total Project Budget: \$ 45,000

Schedule:

Construction Start Date: 01/01/2026

Substantial Completion or purchase date: 12/31/2026

Funding Sources:

Waste Water Rates \$ 45,000
 Please Select
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 Capital Reserve \$ 0

Attach Images: Elect Blower VFDs.jpg

Opens the attachment panel. Double click files to view images attached. Maximum Size: 10MB

Justification for Matrix Values

Score 0 - 5

Justification / Rationale for Rating

People	How many people will be directly impacted by the project?	5	BAF Blower failure would cause a failure of the WWTP secondary process and thereby affects the entire City.
Health and Safety	What is the risk to the health and safety of the public or Staff if the project does not proceed?	5	If process failure led to contamination of the Bay, this could be characterized as a public health and safety risk.
Legislation	Is the project required for legislative/regulatory compliance?	5	Ontario Water Resources Act
Asset Management	Is the project a high priority for replacement in the asset management plan.	3	The work is identified on the 10-year plan
Operational Performance	If the project proceeds (or fails to proceed), what will be the impact on operational performance? Comment on any impact on operating costs, staff time and maintenance.	5	The blower and BAF cell aeration system is necessary for secondary plant performance.
Financing	Can the cost of investment be leveraged or are there partnership funds available?	2	Reserves
Environment	Does the project address needs impacted by climate change?	2	Necessary work is required to ensure uninterrupted wastewater treatment.
Socio-Economic Factors	To what degree does the project support diversity and inclusion Initiatives?	1	No public spaces adversely impacted
Aesthetic Value	To what degree is the aesthetic value of the asset improved?	2	No adverse impact on aesthetic value
Strategic Plan	Does the project help to meet a Key Result in the Strategic Plan?	1	N/A : Core Service
Public Input	Has the project been identified through public engagement?	1	None

Storage Tank Biosolids Cleanout

230.2

Priority Score: **69.30**

Project Type: Rehabilitation
Growth Related?: No
Estimated Useful Life (years): 50
Future Replacement Cost: Enter Replacement Cost & Year of Replacement

Priority Level: High
Department: Public Works and Engineering
Staff Contact: Manager of Public Works
Location/Coordinates: Wastewater Treatment Plant

Cash Flow Projection:	2024	2025	2026
Studies			
In House Engineering			
Design or Engineering			
Communication / Signage			
Construction / Contractor	\$ 150,000		
Materials			
Equipment/Misc			
Contingency			
Total	\$ 150,000	\$ 0	\$ 0

Description and Rationale:
 The biosolids storage tank (pictured) at the Wastewater Treatment Plant receives digested biosolids after treatment, and stores them for seasonal land application.
 In time the tank accumulates sediment and debris and requires a cleaning for proper operation; especially mixing and pumping.
 At this time it is expected that by 2024 this will be required again.

Costs Incurred to 2023 Year End

Impact on Operating Budget \$ 0 \$ 0 \$ 0

Total Project Budget: \$ 150,000

Schedule:
 Construction Start Date: 05/31/2024
 Substantial Completion or purchase date: 09/01/2024

Funding Sources:
 Waste Water Rates \$ 150,000
 Please Select
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 Please Select
 Capital Reserve \$ 0

Attach Images: 230.2.JPG

Opens the attachment panel. Double click files to view images attached. Maximum Size: 10MB

Justification for Matrix Values

Score 0 - 5

Justification / Rationale for Rating

People	How many people will be directly impacted by the project?	5	This is the biosolids storage for the entire City
Health and Safety	What is the risk to the health and safety of the public or Staff if the project does not proceed?	5	Storage tank mixing or pumping failure could create adverse reactions in the tank, which could create dangerous and odorous gases.
Legislation	Is the project required for legislative/regulatory compliance?	5	Ontario Water Resources Act
Asset Management	Is the project a high priority for replacement in the asset management plan.	3	This is a recurring requirement for asset maintenance
Operational Performance	If the project proceeds (or fails to proceed), what will be the impact on operational performance? Comment on any impact on operating costs, staff time and maintenance.	4	This is a necessary regular activity in order to allow proper operation of the biosolids treatment train.
Financing	Can the cost of investment be leveraged or are there partnership funds available?	2	Wastewater Rates
Environment	Does the project address needs impacted by climate change?	1	Increased flows do not necessarily translate to increased biosolids production.
Socio-Economic Factors	To what degree does the project support diversity and inclusion Initiatives?	1	No public spaces adversely impacted
Aesthetic Value	To what degree is the aesthetic value of the asset improved?	3	Prevent a possible severe odour problem.
Strategic Plan	Does the project help to meet a Key Result in the Strategic Plan?	1	N/A : Core Service
Public Input	Has the project been identified through public engagement?	0	None

WWTP Site Building HVAC and Roof Repairs

230.3

Priority Score: **62.90**

Project Type: Rehabilitation
Growth Related?: No
Estimated Useful Life (years): 50
Future Replacement Cost: Enter Replacement Cost & Year of Replacement

Priority Level: High
Department: Public Works and Engineering
Staff Contact: Manager of Public Works
Location/Coordinates: Wastewater Treatment Plant

Cash Flow Projection:	2024	2025	2026
Studies			
In House Engineering			
Design or Engineering			
Communication / Signage			
Construction / Contractor	\$ 105,000	\$ 20,000	\$ 50,000
Materials			
Equipment/Misc			
Contingency			
Total	\$ 105,000	\$ 20,000	\$ 50,000

Costs Incurred to 2023 Year End

Impact on Operating Budget \$ 0 \$ 0 \$ 0

Total Project Budget: \$ 175,000

Schedule:
 Construction Start Date: 05/31/2024
 Substantial Completion or purchase date: 09/01/2026

Funding Sources:

Waste Water Rates	\$ 175,000
Please Select	
Please Select	
Please Select	
Please Select	
Capital Reserve	\$ 0

Description and Rationale:

In 2020 a facility asset assessment for building-related items was undertaken by the Facilities Manager, and included an assessment of the roofs at the Wastewater Treatment Plant.

It was identified that the locations with the greatest roofing needs were the gas room roof, and the old bar screen building roof, shown on the attached pictures. As part of a rehabilitation schedule, it was proposed to undertake that work in 2024.

In 2023, minor repairs to the West Side Pumping Station roof were required.

Attach Images: 230.3.JPG

Opens the attachment panel. Double click files to view images attached. Maximum Size: 10MB

Justification for Matrix Values

Score 0 - 5

Justification / Rationale for Rating

People	How many people will be directly impacted by the project?	5	This is the biosolids storage for the entire City
Health and Safety	What is the risk to the health and safety of the public or Staff if the project does not proceed?	4	A roof leak could create a health and safety risk to staff, especially if electrical equipment were affected
Legislation	Is the project required for legislative/regulatory compliance?	5	Ontario Water Resources Act
Asset Management	Is the project a high priority for replacement in the asset management plan.	3	This is a recurring requirement for asset maintenance
Operational Performance	If the project proceeds (or fails to proceed), what will be the impact on operational performance? Comment on any impact on operating costs, staff time and maintenance.	3	Roof leakage can damage equipment and disrupt operations
Financing	Can the cost of investment be leveraged or are there partnership funds available?	2	Wastewater Rates
Environment	Does the project address needs impacted by climate change?	2	Increased rainfall
Socio-Economic Factors	To what degree does the project support diversity and inclusion Initiatives?	1	No public spaces adversely impacted
Aesthetic Value	To what degree is the aesthetic value of the asset improved?	2	Existing roofs aesthetically displeasing but relatively minor issue here.
Strategic Plan	Does the project help to meet a Key Result in the Strategic Plan?	1	N/A : Core Service
Public Input	Has the project been identified through public engagement?	0	None

CLI Approval Requirements

230.6

Priority Score: **52.60**

Project Type: Rehabilitation

Growth Related?: No

Estimated Useful Life (years): 50

Future Replacement Cost: Enter Replacement Cost & Year of Replacement

Priority Level: High

Department: Public Works and Engineering

Staff Contact: Manager of Public Works

Location/Coordinates: N/A

Cash Flow Projection:	2025	2026	2027
Studies	\$ 20,000		\$ 40,000
In House Engineering			
Design or Engineering			
Communication / Signage			
Construction / Contractor			
Materials			
Equipment/Misc			
Contingency			
Total	\$ 20,000	\$ 0	\$ 40,000

Costs Incurred to 2024 Year End \$ 0

Impact on Operating Budget \$ 0 \$ 0 \$ 0

Total Project Budget: \$ 60,000

Schedule:

Construction Start Date: 06/01/2025

Substantial Completion or purchase date: 12/31/2027

Funding Sources:

Waste Water Rates \$ 60,000

Please Select

Please Select

Please Select

Please Select

Capital Reserve \$ 0

Description and Rationale:

In December 2022 the Ministry of Environment issued the City its first Consolidated Environmental Compliance Approval documents for both the Sanitary Sewage Collection System and the Storm Sewer system.

There are many implications for the system operations, maintenance, approvals, and capital planning. These were summarized in a report to the Operations Committee in March 2023.

With respect to the Sanitary requirements, there are various reports and studies required by the CLI-ECA at specific times in 2023, 2025, and 2027.

Attach Images: 230.6.JPG

Opens the attachment panel. Double click files to view images attached. Maximum Size: 10MB

Justification for Matrix Values

Score 0 - 5

Justification / Rationale for Rating

People	How many people will be directly impacted by the project?	5	The monitoring, reporting, maintenance, and capital requirements will affect the entire City.
Health and Safety	What is the risk to the health and safety of the public or Staff if the project does not proceed?	3	This is intended to enhance protection of the public health and safety.
Legislation	Is the project required for legislative/regulatory compliance?	5	Environmental Protection Act. These are requirements of the CLI-ECA.
Asset Management	Is the project a high priority for replacement in the asset management plan.	2	This will require some assessments and possibly enhancements to current infrastructure.
Operational Performance	If the project proceeds (or fails to proceed), what will be the impact on operational performance? Comment on any impact on operating costs, staff time and maintenance.	2	Regulatory requirement with operational impacts.
Financing	Can the cost of investment be leveraged or are there partnership funds available?	1	No opportunity for partnership or grant funding. Funded through wastewater rates.
Environment	Does the project address needs impacted by climate change?	4	Relevant factor for this project since the CSO's can be associated with climate change.
Socio-Economic Factors	To what degree does the project support diversity and inclusion Initiatives?	1	The Project does not eliminate an existing public space.
Aesthetic Value	To what degree is the aesthetic value of the asset improved?	1	Asset has no aesthetic value (i.e. is underground, is not visible).
Strategic Plan	Does the project help to meet a Key Result in the Strategic Plan?	1	Project supports core service delivery.
Public Input	Has the project been identified through public engagement?	0	Has not been identified by the public.

Digester Bio-Solids Cleanout

240.3

Priority Score: **66.00**

Project Type: Maintenance
Growth Related?: No
Estimated Useful Life (years): 5
Future Replacement Cost: Enter Replacement Cost & Year of Replacement

Priority Level: High
Department: Public Works and Engineering
Staff Contact: Manager of Public Works
Location/Coordinates: Wastewater Treatment Plant

Cash Flow Projection:	2025	2026	2027
Studies			
In House Engineering			
Design or Engineering			
Communication / Signage			
Construction / Contractor			
Materials			
Equipment/Misc	\$ 300,000		
Contingency			
Total	\$ 300,000	\$ 0	\$ 0

Costs Incurred to 2024 Year End \$ 0

Impact on Operating Budget \$ 0

Total Project Budget: \$ 300,000

Schedule:
 Construction Start Date: 07/01/2025
 Substantial Completion or purchase date: 08/31/2025

Funding Sources:

Waste Water Rates	\$ 300,000
Please Select	
Please Select	
Please Select	
Please Select	
Capital Reserve	\$ 0

Description and Rationale:

The digester, with a capacity of about 2000 cubic metres receives the biosolids from the clarifiers at the WWTP, and provides additional treatment, and produces biogas, prior to being stored on site in the two storage tanks, then land applied.

Approximately every five years deletrious materials in the digester must be cleaned out to allow for proper tank operation, especially the biosolids pumps and mixing system. Otherwise rags and other materials begin to clog those components, which could result in digester failure.

Currently such clogging events are accelerating in frequency.

Attach Images:

Opens the attachment panel. Double click files to view images attached. Maximum Size: 10MB

Justification for Matrix Values

Score 0 - 5

Justification / Rationale for Rating

People	How many people will be directly impacted by the project?	5	This can affect the wastewater treatment train which affects the entire City.
Health and Safety	What is the risk to the health and safety of the public or Staff if the project does not proceed?	3	Failure of the digester can have a significant environmental and health and safety impact.
Legislation	Is the project required for legislative/regulatory compliance?	5	Ontario Water Resources Act, Nutrient Management Act.
Asset Management	Is the project a high priority for replacement in the asset management plan.	3	This has been identified in the 10 year plan.
Operational Performance	If the project proceeds (or fails to proceed), what will be the impact on operational performance? Comment on any impact on operating costs, staff time and maintenance.	5	Failure of the digester can mean scheduling an emergency cleanout, at significant expense, and trucking all biosolids to Lystech for treatment while the digester is down, also a significant expense.
Financing	Can the cost of investment be leveraged or are there partnership funds available?	1	No opportunity for partnership or grant funding. Funded through wastewater rates.
Environment	Does the project address needs impacted by climate change?	3	Wet weather flows are now more frequent; this is a relevant factor for this project since higher flows carry a higher debris load.
Socio-Economic Factors	To what degree does the project support diversity and inclusion Initiatives?	1	No opportunity for partnership or grant funding.
Aesthetic Value	To what degree is the aesthetic value of the asset improved?	1	Asset has no aesthetic value (i.e. is underground, is not visible).
Strategic Plan	Does the project help to meet a Key Result in the Strategic Plan?	1	Project supports core service delivery.
Public Input	Has the project been identified through public engagement?	0	Has not been identified by the public.

Sewer Video Inspections

250.1

Priority Score: **61.40**

Project Type: Rehabilitation
Growth Related?: No
Estimated Useful Life (years): 50
Future Replacement Cost: Enter Replacement Cost & Year of Replacement

Priority Level: High
Department: Public Works and Engineering
Staff Contact: Manager of Public Works
Location/Coordinates: Various

Cash Flow Projection:	2025	2026	2027
Studies			
In House Engineering			
Design or Engineering			
Communication / Signage			
Construction / Contractor	\$ 60,000		\$ 60,000
Materials			
Equipment/Misc			
Contingency			
Total	\$ 60,000	\$ 0	\$ 60,000

Costs Incurred to 2024 Year End \$ 0

Impact on Operating Budget \$ 0 \$ 0 \$ 0

Total Project Budget: \$ 120,000

Schedule:
 Construction Start Date: 06/01/2025
 Substantial Completion or purchase date: 12/31/2027

Funding Sources:

Waste Water Rates	\$ 120,000
Please Select	
Please Select	
Please Select	
Please Select	
Capital Reserve	\$ 0

Description and Rationale:

In 2013/14 ,the majority of the wastewater collection system was TV inspected. This information helped guide rehabilitation efforts since that time. Some annual TV inspection has been done on an ad-hoc basis yearly, but more of the system should be inspected to ensure structural integrity and to guide future rehabilitation work.

Detailed and current condition information facilitates the following:

- Ensuring rehab/replacement monies are spent in the most efficient way possible by guiding prioritization of projects, and selection of rehabilitation strategy.
- uncovers sources of extraneous flow which exacerbates potential for sewage surcharge, backups and overflows and taxes the treatment system.

Attach Images: 250.1.JPG

Opens the attachment panel. Double click files to view images attached. Maximum Size: 10MB

Justification for Matrix Values

Score 0 - 5

Justification / Rationale for Rating

People	How many people will be directly impacted by the project?	4	The TV Inspection area will be a significant portion of the City.
Health and Safety	What is the risk to the health and safety of the public or Staff if the project does not proceed?	3	This is intended to enhance protection of the public health and safety by ensuring poor condition assets are monitored and/or replaced, ultimately reducing occurrences of sewage blockages and overflows.
Legislation	Is the project required for legislative/regulatory compliance?	5	Environmental Protection Act. Will ensure environmental approval compliance from MECP.
Asset Management	Is the project a high priority for replacement in the asset management plan.	4	This work will guide future replacement and rehabilitation, by providing detailed condition data for asset management purposes.
Operational Performance	If the project proceeds (or fails to proceed), what will be the impact on operational performance? Comment on any impact on operating costs, staff time and maintenance.	4	Operational Improvements have been realized via system rehab, ie manhole benching. By targeting asset rehabilitation on areas with high inflow and infiltration, system capacity and performance can be improved.
Financing	Can the cost of investment be leveraged or are there partnership funds available?	1	No opportunity for partnership or grant funding. Funded through wastewater rates.
Environment	Does the project address needs impacted by climate change?	2	Relevant factor for this project since flows can be associated with climate change, and reducing I/I will render the infrastructure more resilient to climate change-induced storm and snowmelt events.
Socio-Economic Factors	To what degree does the project support diversity and inclusion Initiatives?	1	The Project does not eliminate an existing public space.
Aesthetic Value	To what degree is the aesthetic value of the asset improved?	1	Asset has no aesthetic value (i.e. is underground, is not visible).
Strategic Plan	Does the project help to meet a Key Result in the Strategic Plan?	1	Project supports core service delivery.
Public Input	Has the project been identified through public engagement?	0	Has not been identified by the public.

Process Structural Esp Clarifiers

260.1

Priority Score: **73.30**

Project Type: Rehabilitation
Growth Related?: No
Estimated Useful Life (years): 50
Future Replacement Cost: Enter Replacement Cost & Year of Replacement

Priority Level: Very High
Department: Public Works and Engineering
Staff Contact: Manager of Public Works
Location/Coordinates: Wastewater Treatment Plant

Cash Flow Projection:	2026	2027	2028
Studies			
In House Engineering			
Design or Engineering			
Communication / Signage			
Construction / Contractor	\$ 150,000		
Materials			
Equipment/Misc			
Contingency			
Total	\$ 150,000	\$ 0	\$ 0

Description and Rationale:
 Clarifiers 1&2 were constructed in 1962, and 3&4 in 1976. Little work has been done in the past to maintain these structures.
 Remediation is required for concrete, expansion joints and safety railings.

Costs Incurred to 2025 Year End \$ 0

Impact on Operating Budget \$ 0

Total Project Budget: \$ 150,000

Schedule:
 Construction Start Date: 04/01/2026
 Substantial Completion or purchase date: 11/30/2026

Funding Sources:
 Waste Water Rates \$ 150,000
 Please Select
 Please Select
 Please Select
 Please Select
 Capital Reserve \$ 0

Attach Images: Struct1.jpg; struct2.jpg; strcut3.jpg
 Opens the attachment panel. Double click files to view images attached. Maximum Size: 10MB

Justification for Matrix Values

Score 0 - 5

Justification / Rationale for Rating

People	How many people will be directly impacted by the project?	5	This can affect the wastewater treatment train which affects the entire City
Health and Safety	What is the risk to the health and safety of the public or Staff if the project does not proceed?	4	Structural issues with the hand railings could pose significant risk for staff
Legislation	Is the project required for legislative/regulatory compliance?	5	Ontario Water Resources Act
Asset Management	Is the project a high priority for replacement in the asset management plan.	4	These are identified on the 10 year plan
Operational Performance	If the project proceeds (or fails to proceed), what will be the impact on operational performance? Comment on any impact on operating costs, staff time and maintenance.	5	Clarifier Failure would jeopardize the entire treatment process
Financing	Can the cost of investment be leveraged or are there partnership funds available?	2	Reserves
Environment	Does the project address needs impacted by climate change?	2	Necessary work is required to ensure uninterrupted wastewater treatment.
Socio-Economic Factors	To what degree does the project support diversity and inclusion Initiatives?	1	No public spaces adversely impacted
Aesthetic Value	To what degree is the aesthetic value of the asset improved?	2	No adverse impact on aesthetic value
Strategic Plan	Does the project help to meet a Key Result in the Strategic Plan?	1	N/A : Core Service
Public Input	Has the project been identified through public engagement?	1	None

Sanitary Sewer Tracked Camera

260.2

Priority Score: **59.30**

Project Type: New Asset
Growth Related?: No
Estimated Useful Life (years): 20
Future Replacement Cost: Enter Replacement Cost & Year of Replacement

Priority Level: High
Department: Public Works and Engineering
Staff Contact: Manager of Public Works
Location/Coordinates: Wastewater Treatment Plant

Cash Flow Projection:	2026	2027	2028
Studies			
In House Engineering			
Design or Engineering			
Communication / Signage			
Construction / Contractor			
Materials			
Equipment/Misc	\$ 60,000		
Contingency			
Total	\$ 60,000	\$ 0	\$ 0

Costs Incurred to 2025 Year End \$ 0

Impact on Operating Budget \$ 0

Total Project Budget: \$ 60,000

Schedule:
 Construction Start Date: 04/01/2026
 Substantial Completion or purchase date: 11/30/2026

Funding Sources:

Waste Water Rates	\$ 60,000
Please Select	
Please Select	
Please Select	
Please Select	
Capital Reserve	\$ 0

Description and Rationale:

Small sanitary sewer tracked cameras are becoming more economical and their capabilities continue to increase.

Historically when sewer issues require troubleshooting, the operators retain a third party to bring in a tracked camera.

(The City has a sewer camera but it is a camera with a push cable, only suitable for laterals and very short main inspections.)

Having this capacity in house would decrease the third party costs, and improve the ability to immediately troubleshoot issues such as sewer backups.

Attach Images: [deep trekker.jpg](#); [deep trekker 2.JPG](#)

Opens the attachment panel. Double click files to view images attached. Maximum Size: 10MB

Justification for Matrix Values

Score 0 - 5

Justification / Rationale for Rating

People	How many people will be directly impacted by the project?	4	Sewer backups can adversely affect one or more households at a time.
Health and Safety	What is the risk to the health and safety of the public or Staff if the project does not proceed?	5	Sewer backups are a serious health risk to homeowners.
Legislation	Is the project required for legislative/regulatory compliance?	5	Ontario Water Resources Act
Asset Management	Is the project a high priority for replacement in the asset management plan.	1	N/A New Asset
Operational Performance	If the project proceeds (or fails to proceed), what will be the impact on operational performance? Comment on any impact on operating costs, staff time and maintenance.	3	Increased time to diagnose sewer emergencies in some cases
Financing	Can the cost of investment be leveraged or are there partnership funds available?	2	Reserves
Environment	Does the project address needs impacted by climate change?	1	Wet weather flows are now more frequent but this is not a relevant factor for this project
Socio-Economic Factors	To what degree does the project support diversity and inclusion Initiatives?	1	No public spaces adversely impacted
Aesthetic Value	To what degree is the aesthetic value of the asset improved?	2	No adverse impact on aesthetic value
Strategic Plan	Does the project help to meet a Key Result in the Strategic Plan?	1	N/A : Core Service
Public Input	Has the project been identified through public engagement?	1	None