

**TOWN OF COBOURG
CAPITAL BUDGET 2020 - 2022**

ENVIRONMENTAL

PROJECT DESCRIPTION	2020 CAPITAL BUDGET			2021		2022	
	TOTAL COST	REVENUE	NET COST	TOTAL	NET	TOTAL	NET
Water Pollution Control Plants							
Sequence Batch Reactor Expansion	3,000,000	-3,000,000	0	0	0	0	0
WPCP Plant #1 SCADA Phase II	260,000	-260,000	0	0	0	0	0
Biosolids Holding Tank Repairs	85,000	-85,000	0	0	0	0	0
Sanitary Sewer Line for Scum Trough	200,000	-200,000	0	0	0	0	0
Standby Return Pump - Plant #2	30,000	-30,000	0	0	0	0	0
Tertiary Filter Media Replacement	50,000	-50,000	0	0	0	0	0
Solvent Shed Replacement - Plant #1	15,000	-15,000	0	0	0	0	0
Replacement Pump McGill Pump Station	150,000	-150,000	0	0	0	0	0
Channel Grinder Cartridge McGill Pump Station	35,000	-35,000	0	0	0	0	0
Pump Hoist - Plant #1	15,000	-15,000	0	0	0	0	0
Headworks Ventilation System - Plant #1	75,000	-75,000	0	0	0	0	0
Contact Chamber Engineering Design	0	0	0	50,000	0	2,000,000	0
Co-Gen System	0	0	0	1,000,000	0	0	0
Forth St Pump Station	0	0	0	1,000,000	0	1,000,000	0
Heat Exchanger - Plant #1	0	0	0	75,000	0	0	0
King St Pump Station Upgrade	0	0	0	10,000	0	500,000	0
Total Environmental	3,915,000	-3,915,000	0	2,135,000	0	3,500,000	0

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5 YEAR CAPITAL BUDGET JUSTIFICATION

ACCOUNT #

DIVISION: Public Works	3. PROJECT DETAIL & JUSTIFICATION: The SBR is used to pre-treat septic waste and leachate prior to its entry into the main Plant. A great deal of revenue is generated from treating imported waste, but customers are currently being turned away, due to a lack of capacity in the SBR. Adding a second SBR will permit preventative maintenance to be conducted while concurrently expanding the business of pre-treating liquid waste. Budget was approved in 2019 to proceed with the design/building RFP and preliminary engineering so that construction could begin in 2020. Debenture payment will be approximately \$350,000 / year Public Consultation Process No		
DEPARTMENT: Environmental Services			
1. PROJECT NAME & DESCRIPTION Sequence Batch Reactor (SBR) Expansion			
2. COMMITMENTS MADE:	4. EFFECTS ON FUTURE OPERATING BUDGETS:		
	2020	2021	2022
5. EXPENDITURES CONTRACTUAL CAPS BASED ON \$ DIRECT REVENUES GRANTS & SUBSIDIES OTHER	3,000,000		
6. NET REQUIREMENTS: TO BE FINANCED FROM: DEBENTURES OWNERS RESERVES - Sewer OTHER	3,000,000	0	0
7. ANNUAL TAX REQUIREMENT	0	0	0

**TOWN OF COBOURG
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5 YEAR CAPITAL BUDGET JUSTIFICATION

ACCOUNT #

DIVISION: Public Works	3. PROJECT DETAIL & JUSTIFICATION: In 2019 the SCADA integration at Plant #1 began by interconnecting all buildings back to the SCADA computer in the Operations Room. Council pre-approved the next two steps to be completed by the same contractor for consistency in the installation as well as cost efficiencies. This second phase will permit inter-plant and pump station connectivity. Resolution 243-19, tasks #3 & #4. Public Consultation Process No		
DEPARTMENT: Environmental Services			
1. PROJECT NAME & DESCRIPTION WPCP Plant #1 SCADA - Phase II			
2. COMMITMENTS MADE:	4. EFFECTS ON FUTURE OPERATING BUDGETS:		
	2020	2021	2022
5. EXPENDITURES CONTRACTUAL CAPS BASED ON \$ DIRECT REVENUES GRANTS & SUBSIDIES OTHER	260,000		
6. NET REQUIREMENTS: TO BE FINANCED FROM: DEBENTURES OWNERS RESERVES - Sewer OTHER	260,000	0	0
7. ANNUAL TAX REQUIREMENT	0	0	0

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5 YEAR CAPITAL BUDGET JUSTIFICATION

ACCOUNT #

DIVISION: Public Works	3. PROJECT DETAIL & JUSTIFICATION: The Biosolids Holding Tanks at Plant #1 are 25 years old and require some maintenance. The north tank developed a leak in 2019 that required an emergency repair. Stones being thrown from the adjoining railway tracks chipped the exterior paint, allowing the underlying metal to rust through. The work includes repair of other chipped areas, replacement of sacrificial anodes, re-sealing/waterproofing of the interior joints and installation of exterior netting (i.e. to keep thrown rocks from striking the tanks)		
DEPARTMENT: Environmental Services			
1. PROJECT NAME & DESCRIPTION Biosolids Holding Tank Repairs	Public Consultation Process No		
2. COMMITMENTS MADE:	4. EFFECTS ON FUTURE OPERATING BUDGETS:		
	2020	2021	2022
5. EXPENDITURES CONTRACTUAL CAPS BASED ON \$ DIRECT REVENUES GRANTS & SUBSIDIES OTHER	85,000		
6. NET REQUIREMENTS: TO BE FINANCED FROM: DEBENTURES OWNERS RESERVES - Sewer OTHER	85,000	0	0
7. ANNUAL TAX REQUIREMENT	0	0	0

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5 YEAR CAPITAL BUDGET JUSTIFICATION

ACCOUNT #

DIVISION: Public Works	3. PROJECT DETAIL & JUSTIFICATION: A new scum trough was installed in the Contact Chamber at Plant #1 in 2019. Delays in the engineering of the sewer line to connect this trough to the Headworks, as well as insufficient budgetary request for funds, necessitated the deferral of the remainder of the scum trough project to the 2020 Capital Budget.		
DEPARTMENT: Environmental Services			
1. PROJECT NAME & DESCRIPTION Sanitary Sewer Line for Scum Trough	Public Consultation Process No		
2. COMMITMENTS MADE:	4. EFFECTS ON FUTURE OPERATING BUDGETS:		
	2020	2021	2022
5. EXPENDITURES CONTRACTUAL CAPS BASED ON \$ DIRECT REVENUES GRANTS & SUBSIDIES OTHER	200,000		
6. NET REQUIREMENTS: TO BE FINANCED FROM: DEBENTURES OWNERS RESERVES - Sewer OTHER	200,000	0	0
7. ANNUAL TAX REQUIREMENT	0	0	0

**TOWN OF COBOURG
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5 YEAR CAPITAL BUDGET JUSTIFICATION

ACCOUNT #

DIVISION: Public Works	3. PROJECT DETAIL & JUSTIFICATION: The return pump is 25 years old. It is the third of three return pumps being replaced. This pump is used when either of the lead return pumps are off-line (i.e. for preventative maintenance or due to breakdown). This pump was budgeted for replacement in 2019 however due to the unexpected failure of the digester heat exchanger, funds were used to replace the heat exchanger instead. Public Consultation Process No		
DEPARTMENT: Environmental Services			
1. PROJECT NAME & DESCRIPTION Standby Return Pump - Plant #2			
2. COMMITMENTS MADE:	4. EFFECTS ON FUTURE OPERATING BUDGETS:		
	2020	2021	2022
5. EXPENDITURES CONTRACTUAL CAPS BASED ON \$ DIRECT REVENUES GRANTS & SUBSIDIES OTHER	30,000		
6. NET REQUIREMENTS:	30,000	0	0
TO BE FINANCED FROM: DEBENTURES OWNERS RESERVES - Sewer OTHER	-30,000		
7. ANNUAL TAX REQUIREMENT	0	0	0

**TOWN OF COBOURG
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5 YEAR CAPITAL BUDGET JUSTIFICATION

ACCOUNT #

DIVISION: Public Works	3. PROJECT DETAIL & JUSTIFICATION: One of the two Tertiary Filters at Plant #1 was replaced in 2019. The second tank requires media replacement in 2020. The cloth medium is 12 years old and its life expectancy is only 10 years. The second filter was taken off-line in 2019 when the cloth media began to tear. Replacement will allow staff to cycle between the two filter tanks, as they were designed.		
DEPARTMENT: Environmental Services			
1. PROJECT NAME & DESCRIPTION Tertiary Filter Media Replacement	Public Consultation Process No		
2. COMMITMENTS MADE:	4. EFFECTS ON FUTURE OPERATING BUDGETS:		
	2020	2021	2022
5. EXPENDITURES CONTRACTUAL CAPS BASED ON \$ DIRECT REVENUES GRANTS & SUBSIDIES OTHER	50,000		
6. NET REQUIREMENTS: TO BE FINANCED FROM: DEBENTURES OWNERS RESERVES - Sewer OTHER	50,000	0	0
7. ANNUAL TAX REQUIREMENT	0	0	0

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5 YEAR CAPITAL BUDGET JUSTIFICATION

ACCOUNT #

DIVISION: Public Works	3. PROJECT DETAIL & JUSTIFICATION: The existing shed at Plant #1 has been in use for 51 years. The outer walls are falling apart and the spill containment no longer meets code. Spill containment involves a below grade concrete well beneath a grate. The shed will be a small pre-fab metal building.		
DEPARTMENT: Environmental Services			
1. PROJECT NAME & DESCRIPTION Solvent Shed Replacement - Plant #1	Public Consultation Process No		
2. COMMITMENTS MADE:	4. EFFECTS ON FUTURE OPERATING BUDGETS:		
	2020	2021	2022
5. EXPENDITURES CONTRACTUAL CAPS BASED ON \$ DIRECT REVENUES GRANTS & SUBSIDIES OTHER	15,000		
6. NET REQUIREMENTS: TO BE FINANCED FROM: DEBENTURES OWNERS RESERVES - Sewer OTHER	15,000 -15,000	0	0
7. ANNUAL TAX REQUIREMENT	0	0	0

**TOWN OF COBOURG
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5 YEAR CAPITAL BUDGET JUSTIFICATION

ACCOUNT #

DIVISION: Public Works	3. PROJECT DETAIL & JUSTIFICATION: Pump #3 at the McGill Pump Station is over 20 years old and is the only one of the three pumps at the station that has not yet been replaced (i.e. the other two pumps were replaced in 2013) Public Consultation Process No		
DEPARTMENT: Environmental Services			
1. PROJECT NAME & DESCRIPTION Pump Replacement - McGill Pump Station			
2. COMMITMENTS MADE:	4. EFFECTS ON FUTURE OPERATING BUDGETS:		
	2020	2021	2022
5. EXPENDITURES CONTRACTUAL CAPS BASED ON \$ DIRECT REVENUES GRANTS & SUBSIDIES OTHER	150,000		
6. NET REQUIREMENTS: TO BE FINANCED FROM: DEBENTURES OWNERS RESERVES - Sewer OTHER	150,000	0	0
7. ANNUAL TAX REQUIREMENT	0	0	0

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5 YEAR CAPITAL BUDGET JUSTIFICATION

ACCOUNT #

DIVISION: Public Works	3. PROJECT DETAIL & JUSTIFICATION: McGill Pump Station is the largest of the Town's five sanitary pumping stations, pumping nearly 70% of the Town's sewage. The channel grinder is in place to grind up rags, grease and other such material that can plug or damage the pumps. Without the channel grinder, this material must be removed from a bar screen manually by an Operator and carried up two flights of stairs for disposal. A very labour intensive and inefficient process.		
DEPARTMENT: Environmental Services			
1. PROJECT NAME & DESCRIPTION Channel Grinder Cartridge - McGill Pump Station	Public Consultation Process No		
2. COMMITMENTS MADE:	4. EFFECTS ON FUTURE OPERATING BUDGETS:		
	2020	2021	2022
5. EXPENDITURES CONTRACTUAL CAPS BASED ON \$ DIRECT REVENUES GRANTS & SUBSIDIES OTHER	35,000		
6. NET REQUIREMENTS: TO BE FINANCED FROM: DEBENTURES OWNERS RESERVES - Sewer OTHER	35,000	0	0
7. ANNUAL TAX REQUIREMENT	0	0	0

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ACCOUNT #

DIVISION: Public Works	3. PROJECT DETAIL & JUSTIFICATION: The four raw sewage pumps at Plant #1 must be removed for cleaning, maintenance and inspection several times per year. Using a manual hoist is very labour intensive and a potential health and safety risk (upper body strain). Having a local fabricator install an engineer stamped mechanical hoist system would make the removal and maintenance of the pumps much faster with a reduced risk of injury.		
DEPARTMENT: Environmental Services			
1. PROJECT NAME & DESCRIPTION Pump Hoist - Plant #1	Public Consultation Process No		
2. COMMITMENTS MADE:	4. EFFECTS ON FUTURE OPERATING BUDGETS:		
	2020	2021	2022
5. EXPENDITURES CONTRACTUAL CAPS BASED ON \$ DIRECT REVENUES GRANTS & SUBSIDIES OTHER	15,000		
6. NET REQUIREMENTS: TO BE FINANCED FROM: DEBENTURES OWNERS RESERVES - Sewer OTHER	15,000	0	0
7. ANNUAL TAX REQUIREMENT	0	0	0

**TOWN OF COBOURG
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5 YEAR CAPITAL BUDGET JUSTIFICATION

ACCOUNT #

DIVISION: Public Works	3. PROJECT DETAIL & JUSTIFICATION: The wetwell section of the Plant #2 headworks building is a very damp and corrosive environment. The ventilation system is 30 yrs old and the ductwork is badly rusted. The original unit is located inside the building. Installing a make up air (MUA) unit on the roof, will warm the incoming air & remove the equipment from the corrosive environment. This will increase the life expectancy of the equipment and reduce maintenance costs through ease of access.		
DEPARTMENT: Environmental Services			
1. PROJECT NAME & DESCRIPTION Headworks Ventilation System - Plant #2	Public Consultation Process No		
2. COMMITMENTS MADE:	4. EFFECTS ON FUTURE OPERATING BUDGETS:		
	2020	2021	2022
5. EXPENDITURES CONTRACTUAL CAPS BASED ON \$ DIRECT REVENUES GRANTS & SUBSIDIES OTHER	75,000		
6. NET REQUIREMENTS: TO BE FINANCED FROM: DEBENTURES OWNERS RESERVES - Sewer OTHER	75,000	0	0
7. ANNUAL TAX REQUIREMENT	0	0	0

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ACCOUNT #

DIVISION: Public Works	3. PROJECT DETAIL & JUSTIFICATION: The MECP has indicated that they plan to mandate year-round disinfection of effluent (Cobourg currently only disinfect May 15 to Nov 15). This requirement will necessitate a second Contact Chamber, so that annual maintenance can be performed on one tank, while the other is in operation. An engineer will prepare a design that can be put to tender as soon as the MECP issues the mandate.		
DEPARTMENT: Environmental Services			
1. PROJECT NAME & DESCRIPTION Contact Chamber Redundancy	Public Consultation Process No		
2. COMMITMENTS MADE:	4. EFFECTS ON FUTURE OPERATING BUDGETS:		
	2020	2021	2022
5. EXPENDITURES CONTRACTUAL CAPS BASED ON \$ DIRECT REVENUES GRANTS & SUBSIDIES OTHER		50,000	2,000,000
6. NET REQUIREMENTS:	0	50,000	2,000,000
TO BE FINANCED FROM: DEBENTURES OWNERS RESERVES - Sewer OTHER		-50,000	-2,000,000
7. ANNUAL TAX REQUIREMENT	0	0	0

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ACCOUNT #

DIVISION: Public Works	3. PROJECT DETAIL & JUSTIFICATION: Install a co-generation system at Plant #1 that will burn excess digester gas to generate electricity. The generated electricity can either be used in-Plant to offset hydro costs, or sold back to the grid.		
DEPARTMENT: Environmental Services			
1. PROJECT NAME & DESCRIPTION Co-Gen System	Public Consultation Process No		
2. COMMITMENTS MADE:	4. EFFECTS ON FUTURE OPERATING BUDGETS:		
	2020	2021	2022
5. EXPENDITURES CONTRACTUAL CAPS BASED ON \$ DIRECT REVENUES GRANTS & SUBSIDIES OTHER		1,000,000	
6. NET REQUIREMENTS:	0	1,000,000	0
TO BE FINANCED FROM: DEBENTURES OWNERS RESERVES - Sewer OTHER		-1,000,000	
7. ANNUAL TAX REQUIREMENT	0	0	0

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ACCOUNT #

DIVISION: Public Works	3. PROJECT DETAIL & JUSTIFICATION: Based on the outcome of the 2020 capacity study, a potential outcome could be to relocate and expand the Forth St Pumping Station to allow the residents on Cedermere, Tay, Bagot and Tremaine Terrace to connect to the Town's Sanitary Sewer Collection System. Cedermere, Tay and south end of Bagot are currently using septic tanks or private sewers.		
DEPARTMENT: Environmental Services			
1. PROJECT NAME & DESCRIPTION Forth St Pump Station	Public Consultation Process No		
2. COMMITMENTS MADE:	4. EFFECTS ON FUTURE OPERATING BUDGETS:		
	2020	2021	2022
5. EXPENDITURES CONTRACTUAL CAPS BASED ON \$ DIRECT REVENUES GRANTS & SUBSIDIES OTHER		1,000,000	1,000,000
6. NET REQUIREMENTS:	0	1,000,000	1,000,000
TO BE FINANCED FROM: DEBENTURES OWNERS RESERVES - Sewer OTHER		-1,000,000	-1,000,000
7. ANNUAL TAX REQUIREMENT	0	0	0

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ACCOUNT #

DIVISION: Public Works	3. PROJECT DETAIL & JUSTIFICATION: The current heat exchanger at Plant #1 has been in use since 1988. The C.N. Watson Full Cost Recovery report scheduled its replacement in 2018. The unit is losing its efficiency and now needs to be replaced.		
DEPARTMENT: Environmental Services			
1. PROJECT NAME & DESCRIPTION Heat Exchanger - Plant #1	Public Consultation Process No		
2. COMMITMENTS MADE:	4. EFFECTS ON FUTURE OPERATING BUDGETS:		
	2020	2021	2022
5. EXPENDITURES CONTRACTUAL CAPS BASED ON \$ DIRECT REVENUES GRANTS & SUBSIDIES OTHER		75,000	
6. NET REQUIREMENTS:	0	75,000	0
TO BE FINANCED FROM: DEBENTURES OWNERS RESERVES - Sewer OTHER		-75,000	
7. ANNUAL TAX REQUIREMENT	0	0	0

**TOWN OF COBOURG
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5 YEAR CAPITAL BUDGET JUSTIFICATION

ACCOUNT #

DIVISION: Public Works	3. PROJECT DETAIL & JUSTIFICATION: The King St (Monks Cove) Pump Station currently utilizes two pumps with a capacity of 675 L/min. With the new development along King St W, this station will soon have capacity issues. The pump capacity needs to be increased and a third pump added to ensure that the station can continue to service the connected housing, even if one of the pumps is out of service. A capacity study will need to be performed in 2021 with the upgrade occurring in 2022.		
DEPARTMENT: Environmental Services			
1. PROJECT NAME & DESCRIPTION King St Pump Station Upgrade	Public Consultation Process No		
2. COMMITMENTS MADE:	4. EFFECTS ON FUTURE OPERATING BUDGETS:		
	2020	2021	2022
5. EXPENDITURES CONTRACTUAL CAPS BASED ON \$ DIRECT REVENUES GRANTS & SUBSIDIES OTHER		10,000	500,000
6. NET REQUIREMENTS:	0	10,000	500,000
TO BE FINANCED FROM: DEBENTURES OWNERS RESERVES - Sewer OTHER		-10,000	-500,000
7. ANNUAL TAX REQUIREMENT	0	0	0