

## TOWN OF COBOURG CAPITAL BUDGET 2019 - 2021

### **ENVIRONMENTAL**

PROJECT DESCRIPTION	2019 CAPITAL BUDGET			2020		2021	
	TOTAL COST	REVENUE	NET COST	TOTAL	NET	TOTAL	NET
Water Pollution Control Plants							
Ozone Upgrades - Plant #1	600,000	-600,000	0	0	0	0	0
Underpinning Stairwell - Plant #1	75,000	-75,000	0	0	0	0	0
Chain & Flight Replacement - Plant #2	100,000	-100,000	0	0	0	0	0
HVAC Admin Building - Plant #2	15,000	-15,000	0	0	0	0	0
SBR Cleanout - Plant #2	125,000	-125,000	0	0	0	0	0
RAS Pump Rebuild - Plant #2	25,000	-25,000	0	0	0	0	0
Dewatering Pumps - Plant #2	20,000	-20,000	0	0	0	0	0
Removal Decommissioned Detritor - Plant #1	150,000	-150,000	0	0	0	0	0
Sequence Batch Reactor - Plant #2	100,000	-100,000	0	1,900,000	0	0	0
Heat Exchanger Pump Repl - Plant #1	40,000	-40,000	0	0	0	0	0
Replace Tertiary Filter Medium - Plant #1	50,000	-50,000	0	50,000	0	0	0
SCADA - Pumping Stations	75,000	-75,000	0	0	0	0	0
Raw Sewage Pump - Plant #2	0	0	0	100,000	0	100,000	0
<b>Total Environmental</b>	<b>1,375,000</b>	<b>-1,375,000</b>	<b>0</b>	<b>2,050,000</b>	<b>0</b>	<b>100,000</b>	<b>0</b>

**TOWN OF COBOURG  
CAPITAL BUDGET 2019 - 2021**

**5 YEAR CAPITAL BUDGET JUSTIFICATION**

ACCOUNT #

<b>DIVISION:</b> Public Works	<b>3. PROJECT DETAIL &amp; JUSTIFICATION:</b>  The FCM pilot study for ozone is now complete. Ozone can replace chlorine as a disinfecting agent. Redundancy must be added to the ozone system before eliminating chlorination equipment and chemicals.  Public Consultation Process <span style="float: right;"><b>No</b></span>		
<b>DEPARTMENT:</b> Environmental Services			
<b>1. PROJECT NAME &amp; DESCRIPTION</b>  Upgrades to Ozone Disinfection System - Plant #1			
<b>2. COMMITMENTS MADE:</b>	<b>4. EFFECTS ON FUTURE OPERATING BUDGETS:</b>		
	<b>2019</b>	<b>2020</b>	<b>2021</b>
<b>5. EXPENDITURES</b>  CONTRACTUAL CAPS BASED ON \$ <b>DIRECT REVENUES</b> GRANTS & SUBSIDIES OTHER	600,000		
<b>6. NET REQUIREMENTS:</b>  <b>TO BE FINANCED FROM:</b> DEBENTURES OWNERS RESERVES - Sewer OTHER	600,000	0	0
<b>7. ANNUAL TAX REQUIREMENT</b>	0	0	0

**TOWN OF COBOURG  
CAPITAL BUDGET 2019 - 2021**

**5 YEAR CAPITAL BUDGET JUSTIFICATION**

ACCOUNT #

<b>DIVISION:</b> Public Works <b>DEPARTMENT:</b> Environmental Services <b>1. PROJECT NAME &amp; DESCRIPTION</b> Underpinning of Stairwell - Plant #1	<b>3. PROJECT DETAIL &amp; JUSTIFICATION:</b> The stairwell constructed in 2008 has shown significant setting. The walls and floors are cracking and the walls are pulling away from the main building. The Town's insurance adjuster has recommended that this be repaired asap. Stantec Engineering has recommended slab jacking around the footings to stabilize the foundation.  Public Consultation Process <span style="float: right;"><b>No</b></span>		
<b>2. COMMITMENTS MADE:</b>	<b>4. EFFECTS ON FUTURE OPERATING BUDGETS:</b>		
	<b>2019</b>	<b>2020</b>	<b>2021</b>
<b>5. EXPENDITURES</b>  CONTRACTUAL CAPS BASED ON \$ <b>DIRECT REVENUES</b> GRANTS & SUBSIDIES OTHER	75,000		
<b>6. NET REQUIREMENTS:</b>  <b>TO BE FINANCED FROM:</b> DEBENTURES OWNERS RESERVES - Sewer OTHER	75,000	0	0
<b>7. ANNUAL TAX REQUIREMENT</b>	0	0	0

**TOWN OF COBOURG  
CAPITAL BUDGET 2019 - 2021**

**5 YEAR CAPITAL BUDGET JUSTIFICATION**

ACCOUNT #

<b>DIVISION:</b> Public Works	<b>3. PROJECT DETAIL &amp; JUSTIFICATION:</b>  In 2018, the 25 year old plastic chain in the Secondary Clarifier at Plant #2 broke. This required an emergency replacement of the chain and flight on the south side of the clarifier. The chains on the north side of the clarifier are the same age and have been exposed to the same conditions. It is likely that this chain will fracture as well. By planning the replacement, it will allow the work to be scheduled during the warm months at a lesser cost.  Public Consultation Process <span style="float: right;"><b>No</b></span>																		
<b>DEPARTMENT:</b> Environmental Services																			
<b>1. PROJECT NAME &amp; DESCRIPTION</b>  Chain & Flight Replacement - Plant #2	<b>4. EFFECTS ON FUTURE OPERATING BUDGETS:</b>  <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;"></th> <th style="width: 16.6%;">2019</th> <th style="width: 16.6%;">2020</th> <th style="width: 16.6%;">2021</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;"> <b>5. EXPENDITURES</b>             CONTRACTUAL            CAPS BASED ON \$  <b>DIRECT REVENUES</b>            GRANTS &amp; SUBSIDIES            OTHER         </td> <td style="text-align: center; vertical-align: top;">100,000</td> <td></td> <td></td> </tr> <tr> <td style="vertical-align: top;"> <b>6. NET REQUIREMENTS:</b>   <b>TO BE FINANCED FROM:</b>            DEBENTURES            OWNERS            RESERVES - Sewer            OTHER         </td> <td style="text-align: center; vertical-align: top;">100,000</td> <td style="text-align: center; vertical-align: top;">0</td> <td style="text-align: center; vertical-align: top;">0</td> </tr> <tr> <td style="vertical-align: top;"> <b>7. ANNUAL TAX REQUIREMENT</b> </td> <td style="text-align: center; vertical-align: top;">0</td> <td style="text-align: center; vertical-align: top;">0</td> <td style="text-align: center; vertical-align: top;">0</td> </tr> </tbody> </table>				2019	2020	2021	<b>5. EXPENDITURES</b>  CONTRACTUAL CAPS BASED ON \$ <b>DIRECT REVENUES</b> GRANTS & SUBSIDIES OTHER	100,000			<b>6. NET REQUIREMENTS:</b>  <b>TO BE FINANCED FROM:</b> DEBENTURES OWNERS RESERVES - Sewer OTHER	100,000	0	0	<b>7. ANNUAL TAX REQUIREMENT</b>	0	0	0
				2019	2020	2021													
<b>5. EXPENDITURES</b>  CONTRACTUAL CAPS BASED ON \$ <b>DIRECT REVENUES</b> GRANTS & SUBSIDIES OTHER	100,000																		
<b>6. NET REQUIREMENTS:</b>  <b>TO BE FINANCED FROM:</b> DEBENTURES OWNERS RESERVES - Sewer OTHER	100,000	0	0																
<b>7. ANNUAL TAX REQUIREMENT</b>	0	0	0																
<b>2. COMMITMENTS MADE:</b>																			

**TOWN OF COBOURG  
CAPITAL BUDGET 2019 - 2021**

**5 YEAR CAPITAL BUDGET JUSTIFICATION**

ACCOUNT #

<b>DIVISION:</b> Public Works	<b>3. PROJECT DETAIL &amp; JUSTIFICATION:</b>  The HVAC system at Plant #2 is failing and needs to be replaced.   Public Consultation Process <span style="float: right;"><b>No</b></span>		
<b>DEPARTMENT:</b> Environmental Services			
<b>1. PROJECT NAME &amp; DESCRIPTION</b>  HVAC for Administration Building - Plant #2			
<b>2. COMMITMENTS MADE:</b>	<b>4. EFFECTS ON FUTURE OPERATING BUDGETS:</b>		
	<b>2019</b>	<b>2020</b>	<b>2021</b>
<b>5. EXPENDITURES</b>  CONTRACTUAL CAPS BASED ON \$ <b>DIRECT REVENUES</b> GRANTS & SUBSIDIES OTHER	15,000		
<b>6. NET REQUIREMENTS:</b>  <b>TO BE FINANCED FROM:</b> DEBENTURES OWNERS RESERVES - Sewer OTHER	15,000	0	0
<b>7. ANNUAL TAX REQUIREMENT</b>	0	0	0

**TOWN OF COBOURG  
CAPITAL BUDGET 2019 - 2021**

**5 YEAR CAPITAL BUDGET JUSTIFICATION**

ACCOUNT #

<b>DIVISION:</b> Public Works	<b>3. PROJECT DETAIL &amp; JUSTIFICATION:</b>  The Sequence Batch Reactor at Plant #2 processes large volumes of septic waste and leachate. A large amount of sand and debris has collected inside the aeration chamber and needs to be removed. The debris is occupying functional volume inside the tank, reducing the amount that can be treated. This tank should be cleaned out every year by our staff but it cannot be taken off line long enough to be entirely emptied which creates additional expense to contract the clean out.  Public Consultation Process <span style="float: right;"><b>No</b></span>		
<b>DEPARTMENT:</b> Environmental Services			
<b>1. PROJECT NAME &amp; DESCRIPTION</b>  SBR Cleanout - Plant #2			
<b>2. COMMITMENTS MADE:</b>	<b>4. EFFECTS ON FUTURE OPERATING BUDGETS:</b>		
	<b>2019</b>	<b>2020</b>	<b>2021</b>
<b>5. EXPENDITURES</b>  CONTRACTUAL CAPS BASED ON \$ <b>DIRECT REVENUES</b> GRANTS & SUBSIDIES OTHER	125,000		
<b>6. NET REQUIREMENTS:</b>	125,000	0	0
<b>TO BE FINANCED FROM:</b> DEBENTURES OWNERS RESERVES - Sewer OTHER	-125,000		
<b>7. ANNUAL TAX REQUIREMENT</b>	0	0	0

**TOWN OF COBOURG  
CAPITAL BUDGET 2019 - 2021**

**5 YEAR CAPITAL BUDGET JUSTIFICATION**

ACCOUNT #

<b>DIVISION:</b> Public Works	<b>3. PROJECT DETAIL &amp; JUSTIFICATION:</b>  The Return Activated Sludge (RAS) pump at Plant #2 is 35 years old and in need or repair. It is believed that a rebuild will extend the pump life for 5-10 years before it will need to be replaced. The cost of a full replacement of this pump is \$300,000.00		
<b>DEPARTMENT:</b> Environmental Services			
<b>1. PROJECT NAME &amp; DESCRIPTION</b>  Rebuild Return Sludge Pump - Plant #2	Public Consultation Process <span style="float: right;"><b>No</b></span>		
<b>2. COMMITMENTS MADE:</b>	<b>4. EFFECTS ON FUTURE OPERATING BUDGETS:</b>		
	<b>2019</b>	<b>2020</b>	<b>2021</b>
<b>5. EXPENDITURES</b>  CONTRACTUAL CAPS BASED ON \$ <b>DIRECT REVENUES</b> GRANTS & SUBSIDIES OTHER	25,000		
<b>6. NET REQUIREMENTS:</b>	25,000	0	0
<b>TO BE FINANCED FROM:</b> DEBENTURES OWNERS RESERVES - Sewer OTHER	-25,000		
<b>7. ANNUAL TAX REQUIREMENT</b>	0	0	0

**TOWN OF COBOURG  
CAPITAL BUDGET 2019 - 2021**

**5 YEAR CAPITAL BUDGET JUSTIFICATION**

ACCOUNT #

<b>DIVISION:</b> Public Works	<b>3. PROJECT DETAIL &amp; JUSTIFICATION:</b>  Dewatering pumps remove groundwater from around underground tanks to prevent them from floating and cracking. The existing pumps are 26 years old and are beginning to fail. They need to be replaced before a failure occurs.		
<b>DEPARTMENT:</b> Environmental Services			
<b>1. PROJECT NAME &amp; DESCRIPTION</b>  Dewatering Pumps - Plant #2	Public Consultation Process <span style="float: right;"><b>No</b></span>		
<b>2. COMMITMENTS MADE:</b>	<b>4. EFFECTS ON FUTURE OPERATING BUDGETS:</b>		
	<b>2019</b>	<b>2020</b>	<b>2021</b>
<b>5. EXPENDITURES</b>  CONTRACTUAL CAPS BASED ON \$ <b>DIRECT REVENUES</b> GRANTS & SUBSIDIES OTHER	20,000		
<b>6. NET REQUIREMENTS:</b>  <b>TO BE FINANCED FROM:</b> DEBENTURES OWNERS RESERVES - Sewer OTHER	20,000	0	0
<b>7. ANNUAL TAX REQUIREMENT</b>	0	0	0



**TOWN OF COBOURG  
CAPITAL BUDGET 2019 - 2021**

**5 YEAR CAPITAL BUDGET JUSTIFICATION**

ACCOUNT #

<b>DIVISION:</b> Public Works	<b>3. PROJECT DETAIL &amp; JUSTIFICATION:</b>  The commissioning on the new Headworks Building at Plant #1 in 2018 made the existing grit removal tank obsolete. Its continued presence is a safety hazard. By removing the old grit tank, the area can be leveled and paved. This will allow for better drainage (i.e. water pools on the road west of the grit tank) and allow the replacement of lost parking spaces. Replacement of lost parking spaces was a condition of the Headworks Building Permit.  Public Consultation Process <span style="float: right;"><b>No</b></span>																		
<b>DEPARTMENT:</b> Environmental Services																			
<b>1. PROJECT NAME &amp; DESCRIPTION</b>  Remove Decommissioned Detritor & Replace Parking - Plant #1	<b>4. EFFECTS ON FUTURE OPERATING BUDGETS:</b>  <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;"></th> <th style="width: 33%; text-align: center;">2019</th> <th style="width: 33%; text-align: center;">2020</th> <th style="width: 33%; text-align: center;">2021</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;"> <b>5. EXPENDITURES</b>             CONTRACTUAL            CAPS BASED ON \$  <b>DIRECT REVENUES</b>            GRANTS &amp; SUBSIDIES            OTHER         </td> <td style="text-align: center; vertical-align: top;">150,000</td> <td></td> <td></td> </tr> <tr> <td style="vertical-align: top;"> <b>6. NET REQUIREMENTS:</b>   <b>TO BE FINANCED FROM:</b>            DEBENTURES            OWNERS            RESERVES - Sewer            OTHER         </td> <td style="text-align: center; vertical-align: top;">150,000</td> <td style="text-align: center; vertical-align: top;">0</td> <td style="text-align: center; vertical-align: top;">0</td> </tr> <tr> <td style="vertical-align: top;"> <b>7. ANNUAL TAX REQUIREMENT</b> </td> <td style="text-align: center; vertical-align: top;">0</td> <td style="text-align: center; vertical-align: top;">0</td> <td style="text-align: center; vertical-align: top;">0</td> </tr> </tbody> </table>				2019	2020	2021	<b>5. EXPENDITURES</b>  CONTRACTUAL CAPS BASED ON \$ <b>DIRECT REVENUES</b> GRANTS & SUBSIDIES OTHER	150,000			<b>6. NET REQUIREMENTS:</b>  <b>TO BE FINANCED FROM:</b> DEBENTURES OWNERS RESERVES - Sewer OTHER	150,000	0	0	<b>7. ANNUAL TAX REQUIREMENT</b>	0	0	0
				2019	2020	2021													
<b>5. EXPENDITURES</b>  CONTRACTUAL CAPS BASED ON \$ <b>DIRECT REVENUES</b> GRANTS & SUBSIDIES OTHER	150,000																		
<b>6. NET REQUIREMENTS:</b>  <b>TO BE FINANCED FROM:</b> DEBENTURES OWNERS RESERVES - Sewer OTHER	150,000	0	0																
<b>7. ANNUAL TAX REQUIREMENT</b>	0	0	0																
<b>2. COMMITMENTS MADE:</b>																			

**TOWN OF COBOURG  
CAPITAL BUDGET 2019 - 2021**

**5 YEAR CAPITAL BUDGET JUSTIFICATION**

ACCOUNT #

<b>DIVISION:</b> Public Works	<b>3. PROJECT DETAIL &amp; JUSTIFICATION:</b>		
<b>DEPARTMENT:</b> Environmental Services	The SBR runs continuously and generates considerable revenue for the department. Constructing a second SBR will allow the facility to accept more liquid waste (i.e. Septage, leachate) and permit routine maintenance to occur. Due to the heavy demand for liquid waste processing, the SBR has not been shut down for annual maintenance in 3 years. The pre-engineering and tendering process is to be done in 2019 and construction in 2020.		
<b>1. PROJECT NAME &amp; DESCRIPTION</b>  Sequence Batch Reactor Expansion - Plant #2	Public Consultation Process <span style="float: right;"><b>No</b></span>		
<b>2. COMMITMENTS MADE:</b>	<b>4. EFFECTS ON FUTURE OPERATING BUDGETS:</b>		
	<b>2019</b>	<b>2020</b>	<b>2021</b>
<b>5. EXPENDITURES</b>  CONTRACTUAL CAPS BASED ON \$ <b>DIRECT REVENUES</b> GRANTS & SUBSIDIES OTHER	100,000	1,900,000	
<b>6. NET REQUIREMENTS:</b>	100,000	1,900,000	0
<b>TO BE FINANCED FROM:</b> DEBENTURES OWNERS RESERVES - Sewer OTHER	-100,000	-1,900,000	
<b>7. ANNUAL TAX REQUIREMENT</b>	0	0	0

**TOWN OF COBOURG  
CAPITAL BUDGET 2019 - 2021**

**5 YEAR CAPITAL BUDGET JUSTIFICATION**

ACCOUNT #

<b>DIVISION:</b> Public Works	<b>3. PROJECT DETAIL &amp; JUSTIFICATION:</b>  The sludge temperature in the Primary Digesters is maintained by running it through a heat exchanger. A pump is required to circulate heated water from the boiler and into the heat exchanger. The recirculating pumps are 25 years old and need to be replaced. If these pumps fail, it will be impossible to maintain temperature in the Primary Digesters.		
<b>DEPARTMENT:</b> Environmental Services			
<b>1. PROJECT NAME &amp; DESCRIPTION</b>  Heat Exchanger Pump Replacement - Plant #1	Public Consultation Process <span style="float: right;"><b>No</b></span>		
<b>2. COMMITMENTS MADE:</b>	<b>4. EFFECTS ON FUTURE OPERATING BUDGETS:</b>		
	<b>2019</b>	<b>2020</b>	<b>2021</b>
<b>5. EXPENDITURES</b>  CONTRACTUAL CAPS BASED ON \$ <b>DIRECT REVENUES</b> GRANTS & SUBSIDIES OTHER	40,000		
<b>6. NET REQUIREMENTS:</b>  <b>TO BE FINANCED FROM:</b> DEBENTURES OWNERS RESERVES - Sewer OTHER	40,000	0	0
<b>7. ANNUAL TAX REQUIREMENT</b>	0	0	0

**TOWN OF COBOURG  
CAPITAL BUDGET 2019 - 2021**

**5 YEAR CAPITAL BUDGET JUSTIFICATION**

ACCOUNT #

<b>DIVISION:</b> Public Works <b>DEPARTMENT:</b> Environmental Services <b>1. PROJECT NAME &amp; DESCRIPTION</b> Tertiary Filter Medium - Plant #1	<b>3. PROJECT DETAIL &amp; JUSTIFICATION:</b> The cloth media that filters effluent at Plant #1 is 10 years old and is starting to deteriorate. The filter medium will be replaced in one of the two tanks in 2019 and the second tank in 2020.  Public Consultation Process <span style="float: right;"><b>No</b></span>		
<b>2. COMMITMENTS MADE:</b>	<b>4. EFFECTS ON FUTURE OPERATING BUDGETS:</b>		
	<b>2019</b>	<b>2020</b>	<b>2021</b>
<b>5. EXPENDITURES</b>  CONTRACTUAL CAPS BASED ON \$ <b>DIRECT REVENUES</b> GRANTS & SUBSIDIES OTHER	50,000	50,000	
<b>6. NET REQUIREMENTS:</b>  <b>TO BE FINANCED FROM:</b> DEBENTURES OWNERS RESERVES - Sewer OTHER	50,000	50,000	0
<b>7. ANNUAL TAX REQUIREMENT</b>	0	0	0

**TOWN OF COBOURG  
CAPITAL BUDGET 2019 - 2021**

**5 YEAR CAPITAL BUDGET JUSTIFICATION**

ACCOUNT #

<b>DIVISION:</b> Public Works <b>DEPARTMENT:</b> Environmental Services <b>1. PROJECT NAME &amp; DESCRIPTION</b> SCADA - Pumping Stations	<b>3. PROJECT DETAIL &amp; JUSTIFICATION:</b> Tying in all pumping stations to the SCADA system will allow computer control of the entire sanitary collection and treatment systems within the Town. During emergency situations, a single operator would be able to correct problems at either treatment plant and any pump station by inputting commands to a computer at either plant. Town is currently preparing a request for proposal for SCADA at Plant 1 as approved in the 2018 capital budget. The SCADA for the pump stations can be added to the scope of work and will be an efficient way to complete both projects at once. Public Consultation Process <span style="float: right;"><b>No</b></span>		
<b>2. COMMITMENTS MADE:</b>	<b>4. EFFECTS ON FUTURE OPERATING BUDGETS:</b>		
	<b>2019</b>	<b>2020</b>	<b>2021</b>
<b>5. EXPENDITURES</b> CONTRACTUAL CAPS BASED ON \$ <b>DIRECT REVENUES</b> GRANTS & SUBSIDIES - CWWF OTHER	75,000		
<b>6. NET REQUIREMENTS:</b>	75,000	0	0
<b>TO BE FINANCED FROM:</b> DEBENTURES OWNERS RESERVES - Sewer OTHER	-75,000		
<b>7. ANNUAL TAX REQUIREMENT</b>	0	0	0

**TOWN OF COBOURG  
CAPITAL BUDGET 2019 - 2021**

**5 YEAR CAPITAL BUDGET JUSTIFICATION**

ACCOUNT #

<b>DIVISION:</b> Public Works	<b>3. PROJECT DETAIL &amp; JUSTIFICATION:</b>  A new raw sewage pump was replaced in 2018 to increase pump capacity at Plant #2 and prevent any more sewage bypasses. One of the remaining two pumps should be replaced in 2019 and the other in 2020.		
<b>DEPARTMENT:</b> Environmental Services			
<b>1. PROJECT NAME &amp; DESCRIPTION</b>  Raw Sewage Pump - Plant #2	Public Consultation Process <span style="float: right;"><b>No</b></span>		
<b>2. COMMITMENTS MADE:</b>	<b>4. EFFECTS ON FUTURE OPERATING BUDGETS:</b>		
	<b>2019</b>	<b>2020</b>	<b>2021</b>
<b>5. EXPENDITURES</b>  CONTRACTUAL CAPS BASED ON \$ <b>DIRECT REVENUES</b> GRANTS & SUBSIDIES OTHER		100,000	100,000
<b>6. NET REQUIREMENTS:</b>	0	100,000	100,000
<b>TO BE FINANCED FROM:</b> DEBENTURES OWNERS RESERVES - Sewer OTHER		-100,000	-100,000
<b>7. ANNUAL TAX REQUIREMENT</b>	0	0	0