



# Introduction

- There are three areas of activity associated with the Sewer Utility:
  - Advanced Waste Water Treatment Plant Operating Costs, Capital Projects
  - Sewer Collection System Operating Costs, Capital Projects, Composting Operations
    - Presentation by public works manager to follow
  - Engineering Sewer Capital Projects - covered in previous presentation
    - Included in previous Engineering Presentation



# 2018 Highlights

	Budget	% change	Trend
Total Revenue	-5,945,939		↑
Salaries & Benefits	1,008,632		↑
Goods and Services	1,255,536		↑
Total Internal Allocation In	3,065,319		↑
Total Internal Allocation Out	<u>-33,900</u>		→
Net Operating Surplus	-650,352	10.79%	↑
Total Capital	2,677,000		↑
Transfer to/From Surplus/Reserve	<u>-2,026,648</u>		↑
Balance Water Operating Fund	0		



# Overview

- Our primary purpose is to receive and treat waste water and dispose of treated effluent and bio-solids

3,824 million Litres of waste water treated  
460 million Litres of treated effluent used to irrigate sports fields and a golf course

Processed 6,473,000 kg of bio solids, approx.  
193 kg per person



# 2017 Accomplishments

- Bio-reactor upgrades completed to increase bio-reactor capacity (defers future major capital) and provides increased process stability.
- Dissolved Air Flootation (DAF) recirculating pump replaced with new technology to reduce polymer consumption and energy costs.
- Asset management plan completed for AWWTP and lift stations
- New roofs installed on five out-buildings completing a 4 year plan of new roofs for all plant buildings.
- Centrifuge #1 rebuild completed.
- Pre-design and detail design completed for 2 sanitary lift stations (Lakeside Road North and South).
- Participated in a National Benchmarking program for the AWWTP. Measures City of Penticton's AWWTP performance against other WWTP across the country.



# 2018 Initiatives

- Upgrade two lift stations on Lakeside Rd (North & South).
- Procure and install a second high efficiency blower for main process, approximately 30% savings in electricity over old blower technology.
- Procure a third influent screw pump for installation in 2019.
- Undertake condition assessments for equipment identified in 2017 asset management plan, goal is to defer non-critical equipment replacement.
- Replace the last of three Programmable Logic Controllers (PLC"s), to ensure AWWTP is supported with its technology.
- Replace a 40 year old Motor Control Center (MCC) that is beyond it's normal service life.
- Undertake a cyber security audit of the AWWTP Plant Control Network (PCN).
- Continue in the National Benchmarking program for AWWTP.
- Some historic Capital spends have now been reallocated into operations to better align with Tangible Capital Assets (TCA). This does create some increases in the 5 year operating budget



# Staffing

*Sewer Utility  
AWWTP*

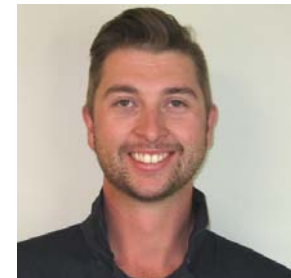


2017

2018

11

11



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# 2018 Highlights

*Sewer Utility  
AWWTP*

	Budget	% change	Trend
Total Operating Expense	2,264,168		↑
Recoveries	<u>-5,945,939</u>		↑
Net Operating Surplus	-3,681,771	8.99%	↑
Capital	2,070,000		↑





# 2018 Budget - Revenues

*Sewer Utility  
AWWTP*

Revenues	2017 Budget	2017 Forecast	2018 Budget	2019 Budget	2020 Budget	2021 Budget	2022 Budget
Sale of service	-5,203,069	-5,236,850	-5,730,121	-6,293,819	-6,765,344	-6,804,053	-6,824,297
Grants	-215,821	-215,821	-215,818	-208,058	-206,511	-206,511	-206,511
Total	-5,418,890	-5,452,671	-5,945,939	-6,501,877	-6,971,855	-7,010,564	-7,030,808



# 2018 Budget - Expenses

Expenses	2017 Budget	2017 Forecast	2018 Budget	2019 Budget	2020 Budget	2021 Budget	2022 Budget
AWWTP - General	818,901	<b>834,387</b>	<b>979,032</b>	925,955	961,795	982,867	1,003,023
AWWTP - Liquids	460,024	<b>459,024</b>	<b>485,468</b>	382,377	514,384	525,992	417,702
AWWTP - Reclaimed Water	110,684	<b>107,405</b>	<b>176,763</b>	118,495	124,925	127,980	132,649
AWWTP - Solids	457,675	<b>433,000</b>	<b>403,646</b>	491,708	478,353	481,580	424,041
Pumps, Stations, and Sewers	124,507	<b>120,358</b>	<b>129,526</b>	132,773	139,030	142,717	147,783
Septage	47,996	<b>49,206</b>	<b>33,235</b>	284,967	36,113	37,415	38,224
City Waste Water	41,171	<b>41,171</b>	<b>22,600</b>	20,600	21,600	21,600	22,600
Asset Management Plan	0	<b>0</b>	<b>0</b>	0	0	50,000	0
Parks	30,000	<b>30,000</b>	<b>33,900</b>	38,985	44,833	46,000	0
<b>Total</b>	<b>2,090,957</b>	<b>2,074,550</b>	<b>2,264,168</b>	<b>2,395,861</b>	<b>2,321,033</b>	<b>2,416,150</b>	<b>2,186,022</b>



# 2018 Capital Budget

*Sewer Utility  
AWWTP*

Project description	Budget	Comments
Equip Replacement for Lift stations	937,500	Replace aging electrical and mechanical equipment Address disposal of flushable wipes
Motor Control Center	525,000	Replace power control centre for plant
Aeration Blower Replacement	235,000	Install second high speed blower
Screw Pump	130,000	Purchase 3rd screw pump
Area 9 Storage	35,000	Reorganize storage area
Parts Washer	10,000	Replace parts washer unit



# 2018 Capital Budget – Con't

Project description	Budget	Comments
Centrifuge MCC HVAC	15,000	Install HVAC in Centrifuge electrical room
PLC Upgrade	50,000	Replace obsolete processor controls
Spare Grit Pump	7,500	Replace high wear grit pump
Gas Detection	30,000	Replace failing fixed gas detection unit
Wonderware Efficiencies	40,000	Plant controls and operation software upgrade
EQ Tank Cleaners	15,000	Install 4 automatic equalization tank cleaners
Door Lock Upgrade Avigilon	<u>40,000</u>	Security improvements
<b>Total</b>	<b>2,070,000</b>	



# Summary

- No changes proposed in staffing
- Modest increase in operational costs
- Improved decision making supported by Asset Management
- Pro-active maintenance and updating of equipment and controls in the plant and lift stations throughout the City enables the AWWTP team to consistently and efficiently treat waste water to a high standard.



# Questions

