

## **GRAND BEND AREA JOINT SEWAGE BOARD**

**Report STB 07 – 2017**

**Board Meeting Date: October 6, 2017**

**TO:** Chair Tomes and Board Members

**FROM:** Steve McAuley, Director of Community Services, Lambton Shores

**RE:** Grand Bend Area Sewage System proposed 2018 Budget

**RECOMMENDATION:**

**THAT** Report STB 07 - 2017 regarding a "Grand Bend Area Sewage System proposed 2018 Budget" be received, and

**THAT** the attached 2018 budget be circulated to the Councils' of Lambton Shores and South Huron for comment, and

**THAT** the Board considers the 2018 final budget and Council comments at the November 17, 2017 scheduled board meeting.

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### **SUMMARY**

This report presents the proposed 2018 operating budget for the Grand Bend Sewage Treatment Facility and the Main Pumping Station (PS2).

### **BACKGROUND**

#### **2018 Operating Budget**

The attached 2018 budget is presented to the Board for their approval. The document presented includes the 2017 budget, 2017 year-to-date totals, 2017 year end projections and the proposed 2018 budget. Also included are flow projections and revenue calculations that are used to calculate the 2018 budget.

The budget is broken into three parts. Part A is administrative costs that are split based on the following proportions set out in the agreement:

#### **PS2**

- Lambton Shores: 50%
- South Huron: 50%

#### **Plant:**

- Lambton Shores: 64.7%
- South Huron: 35.3%

Both Parts B and Parts C are split based on the amount of flow contributed by each municipality to the plant and PS2. There are two components to the flow apportionment:

total flows to the treatment facility, and total flows through the main pump station. Not all flows to the treatment facility pass through the main pump station, and separate cost apportionments are calculated for each facility. The flows are estimated based on a three (3) year average. To calculate 2018 estimated flows, the actual flows from 2015 and 2016 are used and 2017 are calculated based on the flows experienced to date. The estimated 2018 flow proportions as follows:

PS2

- Lambton Shores: 50.97%
- South Huron: 49.03%

Plant:

- Lambton Shores: 52.84%
- South Huron: 47.16%

Much of the operations budgets are fixed costs associated with the operations agreement in place with CH2M. In 2018 these costs will total \$199,395.00.

Other highlights of the proposed budget include:

- Insurance increased 3%
- Taxes increased 2%
- Building Repairs maintained at \$20,000 to finishing the installation of permanent Alum lines.
- Grounds maintenance maintained to allow for maintenance to wetlands pond.
- Hydro costs adjusted to reflect actual past usage.
- Natural costs adjusted to reflect actual past usage.
- A water adjusted to reflect actual past usage.

The budget presented includes significant increase in the utilities required to operate the plant. Hydro costs associated with the plant are substantially higher than what was expected. The 2017 year to date costs are as follows:

January	\$10,029.38
February	\$12,316.96
March	\$10,918.09
April	\$ 9,011.63
May	\$12,054.08
June	\$12,438.07
July	\$12,109.29
August	\$13,461.11

Based on the consistency of the monthly hydro charges received in 2017, the 2018 budget was based on the 2017 average and resulted in a total budget of \$138,507.92 for 2018 for plant hydro.

Natural gas charges were budgeted in a similar manner, with actual monthly charges being used to estimate a total for 2018. It should be noted that the 2017 year to date is skewed due to a bill that was received in 2017 that was actually from 2016. We

attributed this to the service being new. Staff have reviewed the actual monthly charges and have budgeted accordingly.

The last utility that experienced a significant increase is the water usage at the plant. The plant operators have not been able to backwash the existing filters with effluent water, and as a result have had to use potable water. The issue with the effluent water stems from the fact that effluent water pump is directly connected to the wetlands pond. As such algae, minnows, etc. are able to be sucked into the system, which in turns clogs the strainers on the filter backwash system. Staff will work with the operators to try and create some type of screen or barrier between the effluent pump station and the pond, however at this point we are not confident we will be able to achieve a water quality that will work with the backwash system. Based on this, we have budgeted water usage accordingly.

### **2018 Capital Works**

In addition to the attached operating budget, 2018 will include the capital budget to complete the sectional replacement of the forcemain on Mollard line. This work has been awarded and is expected to start in mid-October and be substantially complete by the end of November, with the final restoration being completed in the spring of 2018. The costs anticipated for this work (excluding HST) are as follows:

Preliminary Engineering	\$ 22,200.00
Engineering	\$116,716.00
Construction	<u>\$648,658.73</u>
Sub-Total	\$787,574.73
Net HST	<u>\$ 13,861.32</u>
Total	\$801,436.05

The forcemain is an equally owned asset between Lambton Shores and South Huron, as such; all costs incurred for the project will be split on a 50-50 basis.

It should be noted the above costs are considered "a worst case scenario" that includes all the provisional items included in the tender. As indicated to the Board in previous reports, the tender included approximately \$260,000.00 in contingency and provisional items, the majority included in the event additional pipe was required to be installed.

### **ALTERNATIVES TO CONSIDER**

No alternatives are presented at this time. The Board may direct that the budget be changed prior to recommendation to the member Councils.

### **RECOMMENDED ACTIONS**

THAT Report STB 07 - 2017 regarding a "Grand Bend Area Sewage System proposed 2018 Budget" be received, and

THAT the attached 2018 budget be circulated to the Councils' of Lambton Shores and South Huron for comment, and

THAT the Board considers the 2018 final budget and Council comments at the November 17, 2017 scheduled board meeting.

**FINANCIAL IMPACT**

Once comments from the respective Councils are received, the Board can approve the 2018 budget which will allow the South Huron and Lambton Shores to set their respective budget.

**CONSULTATION**

Lambton Shores and South Huron staff and CH2M Operators

**GRAND BEND AREA JOINT SEWAGE OPERATIONS**  
**Proposed 2018 Budget**

	2017 BUDGET	2017 DRAFT YTD To Aug. 31	2017 Projection	2018 BUDGET	Budget Increase/Decrease
<b>OWNER CONTRIBUTION</b>					
LAMBTON SHORES CONTRIBUTION	236,983.14	116,577.56	302,961.76	301,332.64	64,349.50
SOUTH HURON CONTRIBUTION	186,827.55	95,327.80	238,842.33	242,909.75	56,082.20
<b>TOTAL REVENUE</b>	<b>423,810.69</b>	<b>211,905.36</b>	<b>541,804.10</b>	<b>544,242.39</b>	<b>120,431.70</b>
<b>ADMINISTRATIVE AND GOVERNANCE</b>					
GENERAL ADMINISTRATION CHARGE	3,784.20		3,784.20	3,859.88	75.68
STF GENERAL ADMINISTRATION CHARGE					
PS2					
INSURANCE STF	16,423.47	19,737.10	19,737.10	20,329.21	3,905.74
INSURANCE PS2 & FORCEMAIN	1,592.96			0.00	-1,592.96
AUDIT	7,200.00		7,200.00	7,200.00	0.00
ACCOUNTING SERVICES	2,040.00		2,040.00	2,040.00	0.00
IT	500.00	120.59	300.00	500.00	0.00
SCADA SUPPORT STF	2,000.00		1,500.00	2,000.00	0.00
SCADA SUPPORT PS2					
ENGINEERING STF	2,000.00	1,951.25	5,000.00	2,000.00	0.00
ENGINEERING PS2					
LEGAL	1,000.00	279.16	279.16	1,000.00	0.00
CAPITAL REPLACEMENT RESERVE					
TAXES STF	77,966.76		77,966.76	79,526.10	1,559.34
TAXES PS2	1,749.30	1,206.02	1,749.30	1,784.29	34.99
<b>TOTAL PART A</b>	<b>116,256.69</b>	<b>23,294.12</b>	<b>119,556.52</b>	<b>120,239.48</b>	<b>3,982.79</b>
<b>FIXED MTC &amp; OPERATIONAL COSTS</b>					
TELEPHONE STF	2,000.00	1,262.04	1,893.06	2,000.00	0.00
TELEPHONE PS2		1,171.05	1,756.58		
COMPUTER EXPENSE	500.00			500.00	0.00
BUILDING REPAIRS & MAINTENANCE	20,000.00	5,167.25	20,000.00	20,000.00	0.00
STF BUILDING REPAIRS & MAINTENANCE					
PS2					
GROUNDS MAINTENANCE	3,000.00		3,000.00	3,000.00	0.00
ANNUAL PREVENTIVE MAINTENANCE *	10,176.00	6,783.92	10,176.00	10,176.00	0.00
WETLAND PEST CONTROL	1,000.00		1,000.00	1,000.00	0.00
<b>TOTAL PART B</b>	<b>36,676.00</b>	<b>14,384.26</b>	<b>37,825.64</b>	<b>36,676.00</b>	<b>0.00</b>
<b>VARIABLE OPERATIONAL COSTS (RELATED TO FLOWS)</b>					
OMI ADMINISTRATIVE COSTS STF *	32,646.00	21,764.28	32,464.00	33,475.00	829.00
OMI ADMINISTRATIVE COSTS PS2					
OPERATOR WAGES STF *	95,469.00	63,646.02	95,469.00	97,892.00	2,423.00
OPERATOR WAGES PS2					0.00
ELECTRICAL COSTS STF	60,000.00	78,877.50	136,000.00	138,507.92	78,507.92
ELECTRICAL COSTS PS2	13,000.00	8,614.60	12,921.90	13,000.00	0.00
UNION GAS STF	7,000.00	26,420.41	30,000.00	26,100.00	19,100.00
WATER PS2	1,000.00	163.80	245.70	500.00	-500.00
WATER PLANT	5,000.00	13705.56	20,558.34	20,000.00	15,000.00
CHEMICALS *	42,892.00	28,594.47	42,892.00	43,981.00	1,089.00
LABORATORY SAMPLING *	13,871.00	10,448.74	13,871.00	13,871.00	0.00
<b>TOTAL PART C</b>	<b>270,878.00</b>	<b>252,235.38</b>	<b>384,421.94</b>	<b>387,326.92</b>	<b>116,448.92</b>
<b>TOTAL EXPENSES</b>	<b>423,810.69</b>	<b>289,913.76</b>	<b>541,804.10</b>	<b>544,242.39</b>	<b>120,431.70</b>
<b>NET TOTAL</b>	<b>0.00</b>	<b>(78,008.40)</b>	<b>0.00</b>	<b>0.00</b>	

**GRAND BEND AREA JOINT SEWAGE OPERATIONS**  
2018 Flow Calculations

2017 FLOW CALCULATION PROJECTION (m3)						
Month	PS2	POG	HC Playhouse	Pinery	Oakwood	Grand Cove
Jan	21363	1091	120	117	1524	12430
Feb	19725	954	144	109	1430	5888
Mar	19944	796	188	40	1337	7210
Apr	27294	1300	194	152	1838	9315
May	27520	1257	178	749	1973	10140
June	20580	461	503	2474	2034	6175
July (2016)	19363	648	286	4380	1685	8531
Aug (2016)	32818	360	349	7251	3562	8531
Sept (2016)	19212	240	268	2138	2005	8531
Oct (2016)	6508	168	21	784	1639	8531
Nov (2016)	4075	528	14	244	1872	8531
Dec (2016)	14997	336	20	146	1181	8531
Total	233399	8139	2285	18584	22080	102343
Avg Month	19450	678	190	1549	1840	8529
Avg Annual	233399	8139	2285	18584	22080	102343

8531 - Indicates estimates based on YTD average

2018 FLOW CALCULATION ESTIMATE (m3)				
	2018 (3 YR AVG)	2017 (projection)	2016	2015
Matn Pump (PS2)	236,885	233,399	249,452	227,804
GRAND COVE	95,128	102,343	91,520	91,520
OAKWOOD	21,018	22,080	22,570	18,403
Lambton Shores (PS2 - GC & Oakwood)	120,740	108,976	135,362	117,881
POG	6,809	8,139	6,720	5,568
HCP	1,745	2,285	1,684	1,266
Pinery	18,991	18,584	20,584	17,806
Grand Total Flows To GB plant (PS2 Flow Plus Remaining Sources)	264,430	262,407	278,440	252,444
MUNICIPAL TOTALS				
SOUTH HURON	124,699	134,847	122,494	116,757
LAMBTON SHORES	139,731	127,560	155,946	135,687
TOTAL	264,430	262,407	278,440	252,444

**MUNICIPAL FLOW PROPORTIONMENT**

	Lambton Shores	South Huron
PS2 Flow Proportions	50.97%	49.03%
GB Plant Proportions	52.84%	47.16%

Revenue Calculation			
	Total	Lambton Shores	South Huron
<b>Part A - per agreement</b>			
PS 2- 50% LS, 50% SH	1,784.29	892.14	892.14
Treatment Facility - 64.7% LS, 35.3% SH	118,455.19	76,640.51	41,814.68
Total Part A	120,239.48	77,532.65	42,706.83
<b>Part B - Flow Based</b>			
PS2	-	-	-
Plant	36,676.00	19,380.43	17,295.57
Total Part B	36,676.00	19,380.43	17,295.57
<b>Part C - Flow Based</b>			
PS2	13,500.00	6,880.91	6,619.09
Plant	373,826.92	197,538.64	176,288.27
Total Part C	387,326.92	204,419.56	182,907.36
<b>Total</b>	<b>544,242.39</b>	<b>301,332.64</b>	<b>242,909.75</b>