

# ***B&E Consulting, LLC***

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May 25, 2017

Warwick Sewer Authority  
Warwick, RI

Dear Authority Board Members & Management:

The following schedules are presented to assist the WSA in evaluating the first year of the FY 2017 thru FY 2021 rate plan based upon the May 2016 Warwick Sewer Rate Study. This review also assisted the WSA in preparing the FY 2018 budget.

This review encompassed evaluating year to date consumption data as well expenditures, debt service, and the cash flow of the sewer assessment fund.

**Schedule 1** shows the comparison of last year's projected FY 2016 based upon 9 month of actual data and 3 month projected vs. the audited FY 2016 figures. The revenues came in around \$64,000 less than projected you should consider that this is a less than 1% decrease in annual usage. Fortunately, due to the WSA's prior 5-year plan, the WSA was able repay the City's General Fund. While there is always some inter-fund payable due to the General fund, there was however a greater general cash balance in the sewer fund. This excess in cash over the inter-fund payable provides for a working capital balance at June 30, 2016 of \$1,972,743.

Now that City's General Fund is repaid, the main goal of the 2016 study was to utilize surpluses that repaid the General Fund to help fully fund the renewal and replacement deficit by the end of 2018. This is accomplished with the current rate structure along with the minor increases in the renewal and replacement rate for FY 2018.

It should be noted there no cash was transferred to the R&R account for 2016 while there was a \$900,000 net revenue surplus. During the same time, Accounts Receivable increase by about \$900,000 as well thus no transfer was made to avoid further reducing the working capital balance at this time. For the purposes of Schedule 2, the model assumes this temporary increase in Accounts receivable will be collected to fund the R&R account. The shortfall between the \$900,000 available for R&R repayment from the projected \$1,213,246 was primarily due to the decrease in funding provided by the sewer assessment fund.

**Schedule 2** contains a review of the WSA expenditures and revenues as part of the 5-year rate plan. The figures for FY 2018 have been reviewed in conjunction with the WSA projected FY 2018 budget. This review of the 5-year plan took into consideration the

decline in sewer assessment revenues as presented in schedule 1. The review also pushes out the repayment of the R&R fund to FY 2019.

The results of last year's 5-year rate plan recommended the WSA board to include an increase to only the Renewal & Replacement Rate for FY 2018 and FY 2020. **No additional increase above what has already been proposed in the 2016 study will be required.** Maintaining the current revised rate plan allows WSA to completely repay the R&R Fund by the end of FY 2019. With the currently proposed rates scheduled for FY 2018 and FY 2020 the WSA will be financially solvent through 2021.

**Schedule 3** - contains the project revenue based on the 5-year rate plan.

**Schedule 4** - contains a summary of the proposed rates and used to calculate the revenues presented on Schedule 2. The only increase in rates recommended is to the renewal and replacement rate (covers both residential and commercial) \$3.50 per 1,000 CF for FY 2018 to and to \$6.00 per 1,000 CF for FY 2020.

**Schedule 5** - contains a review of the WSA current debt service structure and payments on future borrowing. Since sewer assessment revenue is used to repay debt this revenue source is presented on this schedule.

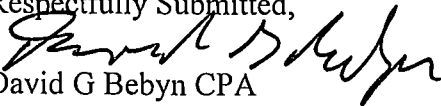
**Schedule 6** - contains a review of the WSA Capital projections are presented in detail on this schedule and were obtained from WSA management. The major capital projects were not assigned by WSA management on their report however this study includes these projects as the renewal and replacement fund is repaid.

**Schedule 7** - provides a ratepayer impact table that shows that residential ratepayers would receive a less than 5% increase for FY 2018 in their overall rates and a less than 4% increase for FY 2020 in their overall rates. Furthermore, it shows that commercial ratepayers would receive a less than 4% increase for FY 2018 in their overall rates and about a 3% increase for FY 2020 in their overall rates. When these increases are averaged over the 5-year rate plan, they only represent a less than 2% increase per year.

B&E recommends that the WSA adopt the **multi-year rate plan presented on Schedule 4**. The rate increase for FY 2018 and FY 2020 were already presented on 2016 study and no additional increase will be required from what was already proposed. It should be noted that increased FY 2018 would only result in a \$7.00 quarterly increase for the average residential user.

We would like to thank the Board, the financial officer, management and staff of the WSA who provided excellent assistance to B&E during this engagement for the yearly review.

Respectfully Submitted,

  
David G Bebyn CPA  
President

Comparison of Projected 2016 to Actual 2016  
with Rate Enacted from May 2016 Study  
 Warwick Sewer Authority

Schedule 1  
 May 2017 Review

	Projected FY 2016	Projected Actual FY 2016	Variance
<b>Sewer Revenues</b>			
Use	\$ 11,985,928	\$ 11,825,028	\$ (160,900)
Renewal/Replacement	140,393	138,508	(1,885)
Minimum Service Charge	4,153,124	4,168,395	15,271
Other	671,332	755,084	83,752
Assessments **	-	-	-
<b>Total Sewer Revenues</b>	<b>\$ 16,950,777</b>	<b>\$ 16,887,015</b>	<b>\$ (63,762)</b>
<b>Sewer Expenses</b>			
Personnel	\$ 2,683,001	\$ 2,730,712	\$ 47,711
Commodities	1,556,175	1,394,279	(161,896)
Services	1,816,991	1,788,086	(28,905)
Misc Capital Exp	674,000	563,891	(110,109)
	-	-	-
Renew Replace	10,000	10,000	-
Debt Service	8,680,537	9,499,354	818,817
Net Operating Reserve	-	-	-
Debt Service Sinking Fund	-	-	-
Repayment of R&R	1,213,246	-	(1,213,246)
<b>Total Sewer Expenses</b>	<b>\$ 16,633,950</b>	<b>\$ 15,986,322</b>	<b>\$ (647,628)</b>
<b>Net Revenue</b>	<b>\$ 316,827</b>	<b>\$ 900,693</b>	<b>\$ 583,866</b>

\*\* Sewer Assessment revenue is netted against debt expense

Proforma Cash Flow Projections  
with Proposed Rates  
Warwick Sewer Authority

Schedule 2  
May 2017 Review

No Change in Rates from what was presented in the May 2016 study

	FY 2016	FY 2017	FY 2018	Projected FY 2019	FY 2020	FY 2021
<b>Sewer Revenues</b>						
Use	\$ 11,825,028	\$ 11,784,887	\$ 11,900,395	\$ 11,992,471	\$ 12,084,934	\$ 12,177,785
Renewal/Replacement	138,508	138,184	773,234	779,485	1,347,020	1,357,826
Minimum Service Charge	4,168,395	4,210,219	4,251,455	4,283,175	4,332,473	4,381,899
Other	755,084	764,300	842,598	759,300	759,300	759,300
Assessments **:	-	-	-	-	-	-
<b>Total Sewer Revenues</b>	\$ 16,887,015	\$ 16,897,591	\$ 17,767,682	\$ 17,814,430	\$ 18,523,728	\$ 18,676,810
<b>Sewer Expenses</b>						
Personnel	\$ 2,730,712	\$ 2,851,734	\$ 3,371,014	\$ 3,455,289	\$ 3,541,672	\$ 3,630,213
Commodities	1,394,279	1,745,600	1,888,950	1,929,091	1,970,198	2,012,297
Services	1,788,086	1,998,963	2,102,999	2,134,473	2,166,471	2,199,002
Misc Capital Exp & WW WWTP	563,891	655,500	454,610	997,890	1,035,000	1,645,000
Repayment of R&R reserve	900,000	690,000	610,000	33,182	-	-
Renew Replace	10,000	-	-	-	-	-
Debt Service	9,499,354	8,955,089	9,161,674	9,125,563	9,364,265	8,775,708
Net Operating Reserve	-	-	168,551	110,833	174,267	149,730
Debt Service Sinking Fund	-	-	-	28,109	271,855	264,859
General Fund Repayment	-	-	-	-	-	-
<b>Total Sewer Expenses</b>	\$ 16,886,322	\$ 16,896,886	\$ 17,757,799	\$ 17,814,430	\$ 18,523,728	\$ 18,676,810
<b>Net Revenue</b>	\$ 693	\$ 705	\$ 9,882	\$ -	\$ -	\$ -
<b>Balance owed to General Fund</b>						
Cash Balance at 6/30/15	\$ 10,392,979	This balance does not include restricted cash held for debt service reserve				
Balance due to General Fund	8,420,236	but does include Pretreatment escrow.				
Working Capital Available	\$ 1,972,743					
Working capital in Days	33	34	36	38	41	44
<b>R&amp;R Repayment</b>						
\$	\$ 900,000	\$ 690,000	\$ 610,000	\$ 33,182	\$ -	\$ -
\$ 2,233,182	\$ 1,333,182	\$ 643,182	\$ 33,182	\$ -	\$ -	\$ -
<b>Accumulation of Debt Service Sinking Fund</b>						
\$	-	\$ -	\$ -	\$ 28,109	\$ 299,964	\$ 564,823

Revenue Check for Proforma Period  
Warwick Sewer Authority

Schedule 3  
May 2017 Review

No Change in Rates from what was presented in the May 2016 study

<u>Retail Use Rate</u>	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Residential	\$ 7,927,850	\$ 8,043,357	\$ 8,116,148	\$ 8,189,230	\$ 8,262,603
Commercial	\$ 3,857,037	\$ 3,857,037	\$ 3,876,323	\$ 3,895,704	\$ 3,915,183
	\$ 11,784,887	\$ 11,900,395	\$ 11,992,471	\$ 12,084,934	\$ 12,177,785

Renewal & Replacement Rate

Residential & Comm	\$ 138,184	\$ 773,234	\$ 779,485	\$ 1,347,020	\$ 1,357,826
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Customer Charge

<u>Residential per Unit</u>	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Meter Size					
5/8	\$ 173,065	\$ 173,065	\$ 173,065	\$ 173,326	\$ 173,587
3/4	\$ 46,505	\$ 46,505	\$ 46,505	\$ 46,862	\$ 47,220
1	\$ 96,761	\$ 96,761	\$ 96,761	\$ 97,197	\$ 97,633
1 1/2	\$ 72,042	\$ 72,042	\$ 72,042	\$ 72,825	\$ 73,608
2	\$ 164,144	\$ 164,144	\$ 164,144	\$ 165,231	\$ 166,318
3	\$ 13,372	\$ 13,372	\$ 13,372	\$ 14,858	\$ 16,344
4	\$ 38,133	\$ 38,133	\$ 38,133	\$ 40,376	\$ 42,619
6	\$ 66,914	\$ 66,914	\$ 66,914	\$ 70,850	\$ 74,786
8	\$ 75,489	\$ 75,489	\$ 75,489	\$ 82,352	\$ 89,214
10	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ 4,210,219	\$ 4,251,455	\$ 4,283,175	\$ 4,332,473	\$ 4,381,899

	\$ 16,133,291	\$ 16,925,084	\$ 17,055,130	\$ 17,764,428	\$ 17,917,510
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Proposed Rates based on May 2016 study  
Warwick Sewer Authority

No Change in Rates from what was presented in the May 2016 study

Schedule 4  
May 2017 Review

	Proposed				
	Current FY 2017 Rates	FY 2018 Rates	FY 2019 Rates	FY 2020 Rates	FY 2021 Rates
<u>Retail Use Rate</u>					
Residential	\$ 47.80	\$ 47.80	\$ 47.80	\$ 47.80	\$ 47.80
<i>Percent billed</i>	100%	100%	100%	100%	100%
Commercial	\$ 73.24	\$ 73.24	\$ 73.24	\$ 73.24	\$ 73.24
<i>Percent billed</i>	\	\	\	\	\
<u>Connect Capable Charge</u>					
Annual per account	\$ -	\$ -	\$ -	\$ -	\$ -
<u>Renewal &amp; Replacement Rate</u>					
Residential & Comm	\$ 0.63	\$ 3.50	\$ 6.00	\$ 6.00	\$ 6.00
<u>Customer Charge Per Quarter</u>					
Residential per Unit	\$ 31.72	\$ 31.72	\$ 31.72	\$ 31.72	\$ 31.72
Meter Size					
Commercial per Unit					
5/8	\$ 65.16	\$ 65.16	\$ 65.16	\$ 65.16	\$ 65.16
3/4	\$ 89.43	\$ 89.43	\$ 89.43	\$ 89.43	\$ 89.43
1	\$ 108.97	\$ 108.97	\$ 108.97	\$ 108.97	\$ 108.97
1 1/2	\$ 195.77	\$ 195.77	\$ 195.77	\$ 195.77	\$ 195.77
2	\$ 271.76	\$ 271.76	\$ 271.76	\$ 271.76	\$ 271.76
3	\$ 371.45	\$ 371.45	\$ 371.45	\$ 371.45	\$ 371.45
4	\$ 560.77	\$ 560.77	\$ 560.77	\$ 560.77	\$ 560.77
6	\$ 984.03	\$ 984.03	\$ 984.03	\$ 984.03	\$ 984.03
8	\$ 1,715.66	\$ 1,715.66	\$ 1,715.66	\$ 1,715.66	\$ 1,715.66

Proforma Debt Projections  
Warwick Sewer Authority

Schedule 5  
May 2017 Review

Account #	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
ALL INTEREST SEWER TOTALS:	2,288,832	2,115,900	1,879,148	1,626,279	1,393,576
ALL PRINCIPAL SEWER TOTALS:	10,740,384	10,602,712	10,597,892	10,834,552	9,354,024
TOTAL DEBT ON NEW SEWER PROJECTS					
FY 2016 8,000,000 SRF	-	517,506	530,659	532,553	532,553
FY 2017 3,730,000 SRF		53,619	254,311	254,242	253,666
FY 2020 5,903,000 Capital Projects					381,855
SEWER ASSESSMENT REVENUE Assessed thru 2016	(4,074,127)	(3,928,062)	(3,631,447)	(3,378,360)	(2,634,965)
SEWER ASSESSMENT REVENUE FY 2018		(200,000)	(250,000)	(250,000)	(250,000)
SEWER ASSESSMENT REVENUE FY 2019			(255,000)	(255,000)	(255,000)
SEWER USE DEBT SERVICE	8,955,089	9,161,674	9,125,563	9,364,265	8,775,708

Proforma Capital Projections  
Warwick Sewer Authority

Schedule 6  
May 2017 Review

Account #	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Collection System	\$ 75,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 70,000
Loveday Forcemain	-	-	-	250,000	-
Pumping Stations	405,000	425,000	565,000	210,000	435,000
Facilities	70,000	127,500	20,000	-	-
Flood Control	-	-	-	-	-
Operations Equipment	50,000	10,000	10,000	60,000	70,000
Laboratory/Sampling Equipment	-	25,000	-	-	-
Maintenance	-	-	-	70,000	-
Vehicle Replacements	50,000	10,000	60,000	-	50,000
Miscellaneous	5,500	-	-	25,000	-
	<u>655,500</u>	<u>647,500</u>	<u>705,000</u>	<u>665,000</u>	<u>625,000</u>
<b>Major Projects</b>					
Cedar Swamp Forcemain				2,000,000	*
Warwick Neck Pump Station Improvements				500,000	*
Redundant Main Inflow Pipe				1,500,000	*
Additional Primary Tank				1,000,000	*
New BNR Membranes & Diffusers				563,000	*
North Final Clarifier Drive Mechanism					200,000
Head Works - Diminutor & Macerator					220,000
Primary Clarifier - new flight, chains and sprockets				340,000	*
New Rotary Screen Thickener					130,000
Repairs to Back-up Grit Removal System					50,000
Odor Control for Solids Handling					75,000
Grease/Scum Removal System					75,000
Utility Garage Storage					40,000
GAPS			100,000	370,000	230,000
<b>Total Capital Expenditures by Year:</b>	<b>\$ 655,500</b>	<b>\$ 647,500</b>	<b>\$ 805,000</b>	<b>\$ 6,938,000</b>	<b>\$ 1,645,000</b>
Money Provided from FEIMA & Grants					
Money Provided from IPP R&R Fund					
Money Provided from New Debt				5,903,000	
Money Provided from Capital Reserve					
<b>Total Budgeted Expenditure by Year:</b>	<b>\$ 655,500</b>	<b>\$ 647,500</b>	<b>\$ 805,000</b>	<b>\$ 1,035,000</b>	<b>\$ 1,645,000</b>
<b>Projects pushed off to FY 2019</b>		(192,890)	192,890		
<b>Total Capital</b>	<b>\$ 655,500</b>	<b>\$ 454,610</b>	<b>\$ 997,890</b>	<b>\$ 1,035,000</b>	<b>\$ 1,645,000</b>

Total Borrowing	\$ 5,903,000
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Yearly Ratepayer Impacts  
Warwick Sewer Authority

Schedule 7  
May 2017 Review

**No Change in Rates from what was presented in the May 2016 study**

	<u>Annual Bill</u>	<u>Annual Net Increase/ (Decrease)</u>	
<b>Impact on 97.6 HCF 5/8" meter Residential User</b>			
FY 2017	599.60		
FY 2018	627.59	27.99	4.67%
FY 2019	627.59	-	0.00%
FY 2020	651.99	24.40	3.89%
FY 2021	651.99	-	0.00%
		<u>52.39</u>	
<b>Impact on 244 HCF 5/8" meter Commercial User</b>			
FY 2017	2,063.23		
FY 2018	2,133.20	69.97	3.39%
FY 2019	2,133.20	-	0.00%
FY 2020	2,194.20	61.00	2.86%
FY 2021	2,194.20	-	0.00%
		<u>130.97</u>	
<b>Impact on 2440 HCF 2" meter Commercial User</b>			
FY 2017	19,112.94		
FY 2018	19,812.63	699.69	3.66%
FY 2019	19,812.63	-	0.00%
FY 2020	20,422.63	610.00	3.08%
FY 2021	20,422.63	-	0.00%
		<u>1,309.69</u>	