



GILMORE & ASSOCIATES, INC.  
ENGINEERING & CONSULTING SERVICES

User Fee Structure Analysis  
Presentation of Findings and Recommendations

For the

Township of Cheltenham  
Montgomery County, PA

Stuart L. Rosenthal, P.E.  
and David L. Busch



BUILDING ON A FOUNDATION OF EXCELLENCE

# GOALS OF THE STUDY

- Insure that the Township's sewer system generates sufficient annual revenues to cover all operating costs and debt service associated with the system.
- Address inequities in the current structure of the existing sewer rates.
- Develop alternative rate structures that will meet the annual revenue requirement of the sewer system while promoting fairness between the users of the system.

# KEY FACTORS IN COMPLETION OF THE SEWER RATE STUDY

- Required capital projects within the sewer system.
- New agreement with the City of Philadelphia and requirements of new agreement.
- Impact of inflation on the operations of the sewer system.
- Method of financing capital projects and the repayment of that debt.
- Stable customer base consisting of primarily Residential and Commercial customers.

# CAPITAL PLAN THROUGH 2018

- Capital plan was developed based upon engineering study.
- Portion of capital plan costs are shared with Abington, Jenkintown and Philadelphia.
- Capital costs will be financed through long term financing and the issuance of General Obligation Bonds issued by the Township.
- Financing projections are based upon 20 year borrowings at current market rates.

**Cheltenham Township - Capital Plan**

Operation / Project Item	2012	2013	2014	2015	2016	2017	2018
Rice's Mill Road sanitary sewer relocation	\$119,085						
JC Melrose Country Club Interceptor D Pipe Bridge and Sewer	1,285,359	\$18,117					
CAP Phase 2 sanitary sewer lining	2,040,690	189,743					
Interceptor A lining Phases 1A and 1B		2,147,348					
Grinder pump installation at 7859 Mill Road	13,475						
Completion of Act 537 Plan	92,810	50,978					
Pre- and Post-rehabilitation flow metering	6,013	1,000	\$1,000	\$1,000	\$1,000		
Interim Bypass Pumping System operation/maintenance		3,000	3,000	3,000			
Design of Interceptor A Replacement Phases 2A, 2B, 3		219,800	54,200	40,000			
Interceptor A replacement Phase 2A			1,010,000	1,010,000			
Interceptor A replacement Phase 2B				3,343,000			
Interceptor A replacement Phase 3				1,264,000			
Interim Bypass Pumping System removal					450,000		
Design of Interceptor A Replacement Phase 4			130,000	130,000	40,000		
Interceptor A replacement Phase 4					5,808,000		
Private sewer lateral rehabilitation							
Area A (500 laterals at approx. \$4,000/lateral+design)					2,140,000		
Area B (500 laterals at approx. \$4,000/lateral+design)					2,140,000		
Manhole rehabilitation per Manhole Inspection Program					1,444,300		
Tookany/Tacony-Frankford Partnership contribution	40,000	40,000	40,000	40,000	40,000		
Intermunicipal flow meter installations at PWD interconnection					87,500		
Design of PWD interceptor upgrade (needed for 29 cfs flow limit)			300,000	250,000	200,000		
Capital to be allocated at a later date (1)						3,000,000	3,000,000
<b>Total Capital Projects</b>	<b>\$3,597,431</b>	<b>\$2,669,986</b>	<b>\$1,538,200</b>	<b>\$6,081,000</b>	<b>\$12,350,800</b>	<b>\$3,000,000</b>	<b>\$3,000,000</b>
<b>Abington Township cost share</b>	<b>\$33,597</b>	<b>\$876,448</b>	<b>\$580,954</b>	<b>\$2,329,932</b>	<b>\$2,061,925</b>		
<b>Jenkintown Borough cost share</b>	<b>11,082</b>	<b>289,082</b>	<b>132,035</b>	<b>529,530</b>	<b>468,619</b>		
<b>City of Philadelphia cost share</b>	<b>-</b>	<b>-</b>	<b>28,223</b>	<b>28,223</b>	<b>1,269,601</b>		
<b>Less: Amount Funded by Future Cheltenham Township Financing</b>	<b>3,552,752</b>	<b>1,504,456</b>	<b>796,988</b>	<b>3,193,315</b>	<b>8,550,655</b>	<b>3,000,000</b>	<b>3,000,000</b>
<b>Total Capital Projects - Funded by Rates</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

(1) Capital to be allocated at a later date includes on going collection system work as well as capital anticipated as result of long term agreement with Philadelphia.

# PROJECTED CASH FLOW UNDER PRESENT RATES

- Operating expenses are projected to increase at 3.5 percent per year.
- Philadelphia Treatment Costs include Long Term Capital Plan.
- Current and Future Debt Service reflect 100 percent of sewer portion of the Township Debt.
- Projected operating deficits in 2016, 2017 and 2018 based on current rates.

Cash Flow Summary  
Current Rates

	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
<b>EXPENSES</b>					
Salaries Sewer	\$622,742	\$644,541	\$667,107	\$690,448	\$714,617
Treatment (Philadelphia 4 quarters) (1)	3,650,000	3,777,750	3,909,970	4,046,820	4,188,460
Operating Expenses	870,710	901,180	932,730	965,380	999,170
Materials & Supplies	-	-	-	-	-
Maint Plant & Vehicle	633,355	655,524	678,452	702,192	726,774
Other Expenses	14,950	15,470	16,010	16,570	17,150
Major Expenses	-	-	-	-	-
Debt - Current	1,877,336	1,893,531	1,898,529	1,962,868	1,522,955
Debt - Future	<u>57,353</u>	<u>287,151</u>	<u>902,474</u>	<u>1,118,360</u>	<u>1,334,246</u>
Total Expenses	\$7,726,445	\$8,175,146	\$9,005,272	\$9,502,638	\$9,503,372
<b>Non-Rate Revenue</b>					
Sewer Treatment Abington	\$1,208,311	\$1,250,602	\$1,294,373	\$1,339,676	\$1,386,564
Sewer Treatment Jenkintown	<u>379,986</u>	<u>393,285</u>	<u>407,050</u>	<u>421,297</u>	<u>436,042</u>
Total Non-Rate Revenues	<u>\$1,588,297</u>	<u>\$1,643,887</u>	<u>\$1,701,423</u>	<u>\$1,760,973</u>	<u>\$1,822,607</u>
Required Revenues From Rates	\$6,138,149	\$6,531,259	\$7,303,849	\$7,741,665	\$7,680,765
Budgeted Revenues	<u>\$7,298,864</u>	<u>\$7,298,864</u>	<u>\$7,298,864</u>	<u>\$7,298,864</u>	<u>\$7,298,864</u>
Surplus	<u>\$1,160,715</u>	<u>\$767,605</u>	<u>(\$4,985)</u>	<u>(\$442,801)</u>	<u>(\$381,901)</u>
Annual Increase of Expenses	18.7%	6.4%	11.8%	6.0%	-0.8%
Required Cumulative Increase	-15.9%	-10.5%	0.1%	6.1%	5.2%

(1) Reflects treatment costs payable to PWD and Townships share of Long Term Capital Plan (LTCP) Charges.

# RATE STRUCTURE – CHALLENGES AND OPPORTUNITIES

- Current “Fixture Count” rate structure has been in place for decades.
- Current structure is inherently unfair because customers bills are plumbing fixtures rather than amount of cost incurred to provide service to the customer.
- Continued difficulty in maintaining the current system.

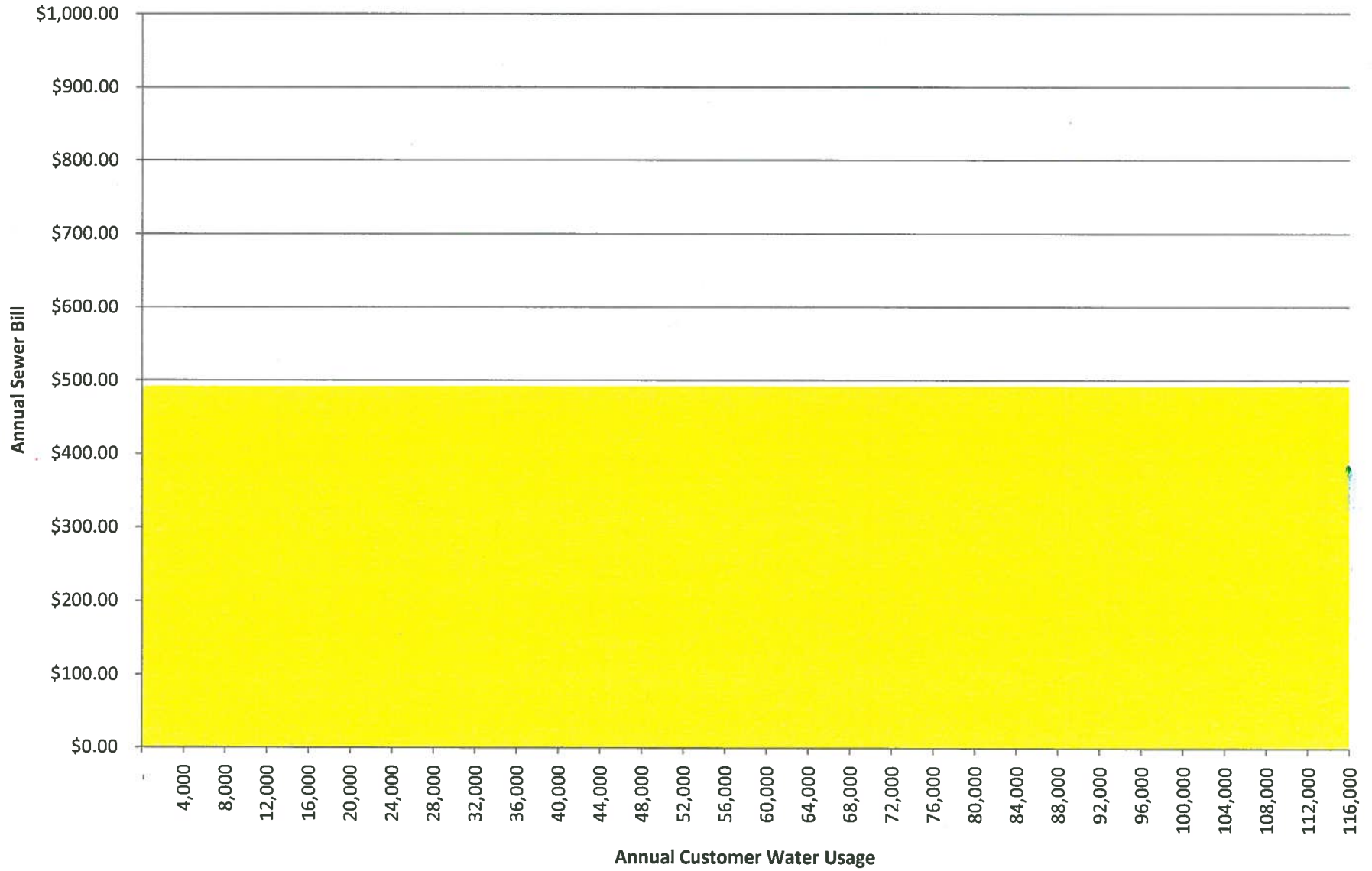


# RATE STRUCTURES CONSIDERED

- A comprehensive billing analyses based upon metered water usage records obtained from Aqua PA was prepared for all customers.
- Multiple alternative structures were considered with focus on a Fixed and Variable Rate Structure.
- All rate structures considered met the goal of generating the required annual revenue requirement.
- Advantages of different rate structures.

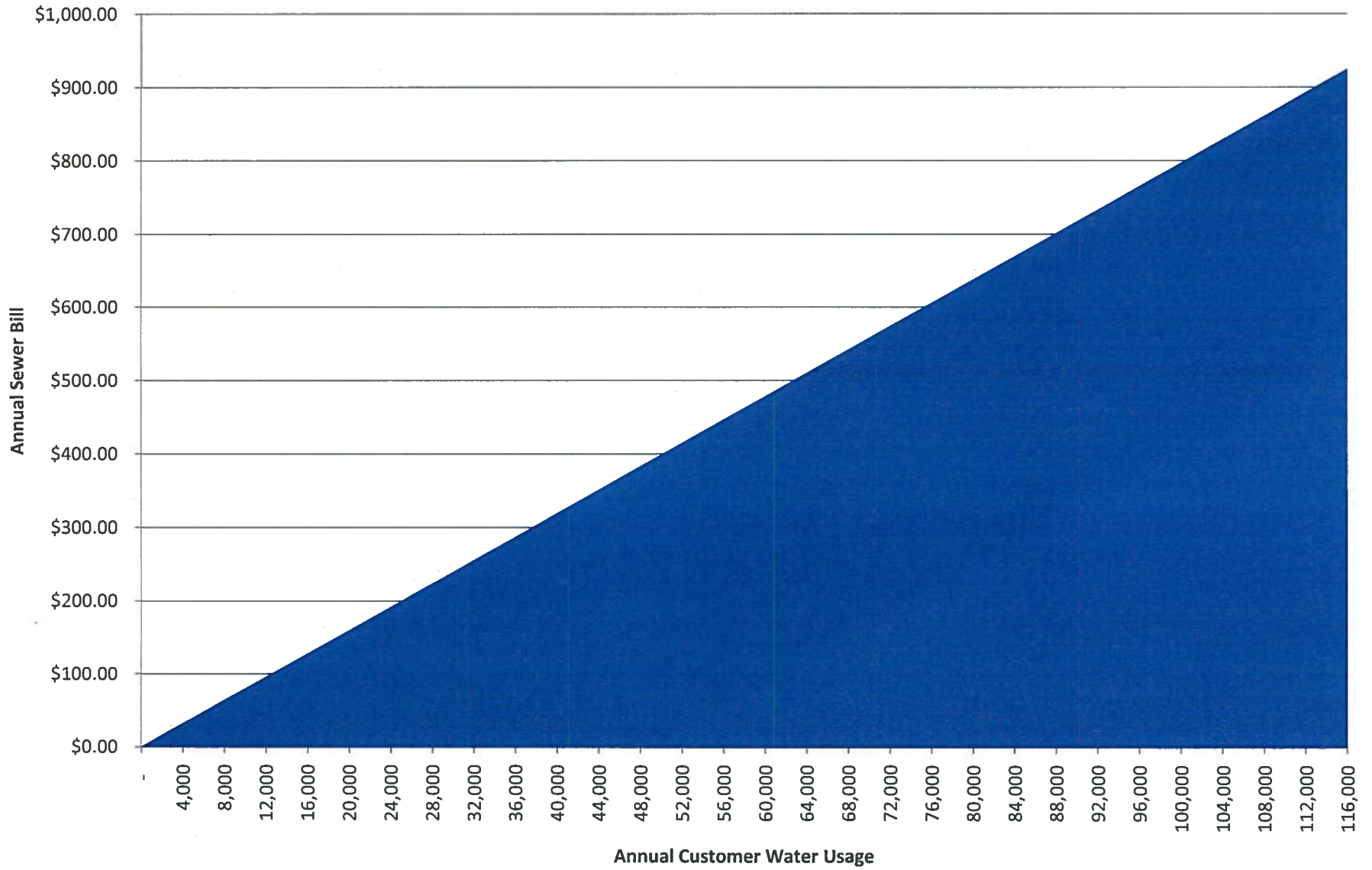
# Annual Sewer Bill

## Completely Fixed Rate Scenario



# Annual Sewer Bill

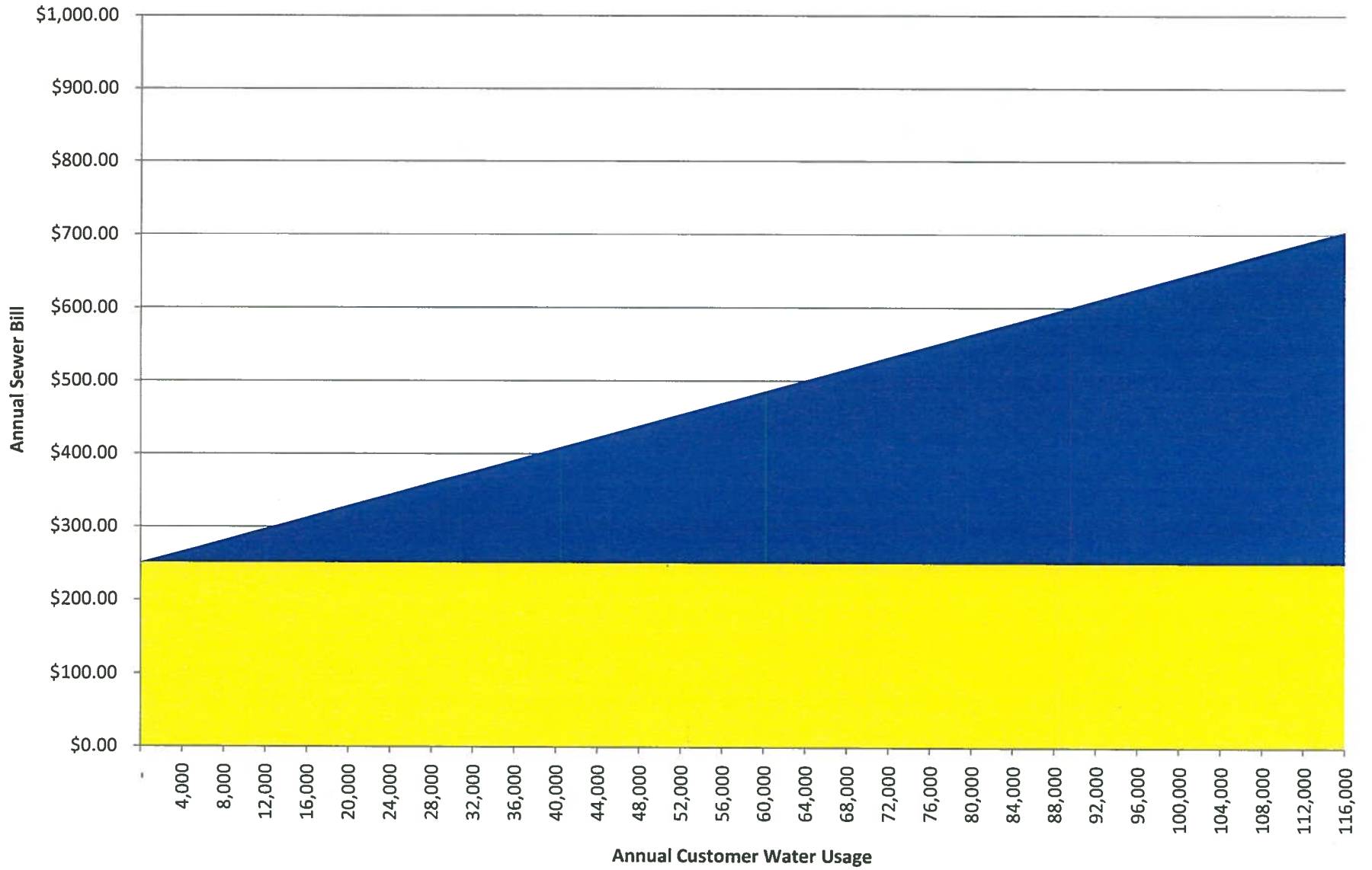
## Completely Variable Rate Scenario



### Calculation of Required Rates

	2014	2015	2016	2017	2018
<b>Rate Scenario No. 1 - Annual Billing</b>					
Annual Service Charge Per EDU	\$275.72	\$281.64	\$297.48	\$320.20	\$309.04
Usage Charge Per 1,000 gallons	\$3.50	\$3.41	\$3.16	\$3.27	\$3.38
Average Residential Bill					
Based on Usage of 60,000 gallons / year	\$485.72	\$486.24	\$487.08	\$516.40	\$511.84
<b>Rate Scenario No. 2 - Annual Billing</b>					
Annual Service Charge Per EDU	\$245.12	\$250.68 ✓	\$266.44	\$289.16	\$278.28
Usage Charge Per 1,000 gallons	\$4.00	\$3.91 ✓	\$3.66	\$3.77	\$3.88
Average Residential Bill					
Based on Usage of 60,000 gallons / year	\$485.12	\$485.28	\$486.04	\$515.36	\$511.08
<b>Rate Scenario No. 3 - Annual Billing</b>					
Annual Service Charge Per EDU	\$214.28	\$219.84	\$235.60	\$258.32	\$247.44
Usage Charge Per 1,000 gallons	\$4.50	\$4.41	\$4.16	\$4.27	\$4.38
Average Residential Bill					
Based on Usage of 60,000 gallons / year	\$484.28	\$484.44	\$485.20	\$514.52	\$510.24
<b>Rate Scenario No. 4 - Annual Billing</b>					
Annual Service Charge Per EDU	\$183.44	\$189.00	\$204.76	\$227.48	\$216.60
Usage Charge Per 1,000 gallons	\$5.00	\$4.91	\$4.66	\$4.77	\$4.88
Average Residential Bill					
Based on Usage of 60,000 gallons / year	\$483.44	\$483.60	\$484.36	\$513.68	\$509.40

# Annual Sewer Bill Rate Scenario No. 2



**Proposed Rates - Rate Scenario No. 2  
Cash Flow Summary**

	2014	2015	2016	2017	2018
<b>EXPENSES</b>					
Salaries Sewer	\$622,742	\$644,541	\$667,107	\$690,448	\$714,617
Treatment (Philadelphia 4 quarters)	3,650,000	3,777,750	3,909,970	4,046,820	4,188,460
Operating Expenses	870,710	901,180	932,730	965,380	999,170
Materials & Supplies	-	-	-	-	-
Maint Plant & Vehicle	633,355	655,524	678,452	702,192	726,774
Other Expenses	14,950	15,470	16,010	16,570	17,150
Major Expenses	-	-	-	-	-
Debt - Current	1,877,336	1,893,531	1,898,529	1,962,868	1,522,955
Debt - Future	57,353	287,151	902,474	1,118,360	1,334,246
<b>Total Expenses</b>	<b>\$7,726,445</b>	<b>\$8,175,146</b>	<b>\$9,005,272</b>	<b>\$9,502,638</b>	<b>\$9,503,372</b>
<b>Non-Rate Revenue</b>					
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<b>Total Non-Rate Revenues</b>	<b>\$1,588,297</b>	<b>\$1,643,887</b>	<b>\$1,701,423</b>	<b>\$1,760,973</b>	<b>\$1,822,607</b>
Required Revenues From Rates	\$6,138,149	\$6,531,259	\$7,303,849	\$7,741,665	\$7,680,765
Projected Revenues at Proposed Rates	\$7,298,784	\$7,298,784	\$7,298,784	\$7,298,784	\$7,298,784
<b>Surplus</b>	<b>\$1,160,636</b>	<b>\$767,525</b>	<b>(\$5,065)</b>	<b>(\$442,881)</b>	<b>(\$381,981)</b>
Annual Increase of Expenses	18.7%	6.4%	11.8%	6.0%	-0.8%
Required Cumulative Increase	-15.9%	-10.5%	0.1%	6.1%	5.2%

**Comparison of Current Vs. Projected Charges for Random Residential Customers  
Rate Scenario 2**

Parcel	House Number	Street Name	Annual Usage	Sewer Rent	Sewer Excess	Total Charged	2015	\$250.68	\$3.91	Total Charged	Difference	%
							Units	Service Charge	Usage Charge			
205007	1100	ANSLEY AVE	28,600	389.00		389.00	1	250.68	111.83	362.51	-26.49	-7%
190004	1103	ANSLEY AVE	52,900	288.00	43.00	331.00	1	250.68	206.84	457.52	126.52	38%
187007	1105	ANSLEY AVE	7,100	187.00		187.00	1	250.68	27.76	278.44	91.44	49%
202001	1106	ANSLEY AVE	27,000	576.00		576.00	1	250.68	105.57	356.25	-219.75	-38%
184001	1107	ANSLEY AVE	93,500	443.00	157.00	600.00	1	250.68	365.59	616.27	16.27	3%
181004	1109	ANSLEY AVE	68,900	443.00		443.00	1	250.68	269.40	520.08	77.08	17%
178007	1111	ANSLEY AVE	52,800	421.00		421.00	1	250.68	206.45	457.13	36.13	9%
199004	1112	ANSLEY AVE	58,300	299.00	68.00	367.00	1	250.68	227.95	478.63	111.63	30%
175001	1115	ANSLEY AVE	19,900	523.00		523.00	1	250.68	77.81	328.49	-194.51	-37%
196007	1116	ANSLEY AVE	72,900	464.00		464.00	1	250.68	285.04	535.72	71.72	15%
193001	1200	ANSLEY AVE	89,200	469.00	96.00	565.00	1	250.68	348.77	599.45	34.45	6%
169007	1201	ANSLEY AVE	37,200	582.00		582.00	1	250.68	145.45	396.13	-185.87	-32%
166001	1211	ANSLEY AVE	60,700	453.00		453.00	1	250.68	237.34	488.02	35.02	8%
10900004	7606	GARDEN RD	67,700	192.00	268.00	460.00	1	250.68	264.71	515.39	55.39	12%
10903001	7608	GARDEN RD	14,200	320.00		320.00	1	250.68	55.52	306.20	-13.80	-4%
10906007	7610	GARDEN RD	60,800	261.00	137.00	398.00	1	250.68	237.73	488.41	90.41	23%
10909004	7612	GARDEN RD	61,200	192.00	220.00	412.00	1	250.68	239.29	489.97	77.97	19%
10912001	7614	GARDEN RD	37,100	197.00	37.00	234.00	1	250.68	145.06	395.74	161.74	69%
10897007	7615	GARDEN RD	46,400	325.00		325.00	1	250.68	181.42	432.10	107.10	33%
17032001	7627	LEVIS RD	63,400	389.00	3.00	392.00	1	250.68	247.89	498.57	106.57	27%
17062007	7628	LEVIS RD	20,200	176.00		176.00	1	250.68	78.98	329.66	153.66	87%
17035007	7629	LEVIS RD	54,400	304.00	39.00	343.00	1	250.68	212.70	463.38	120.38	35%
17065004	7630	LEVIS RD	29,200	176.00	1.00	177.00	1	250.68	114.17	364.85	187.85	106%
17038004	7631	LEVIS RD	20,300	176.00		176.00	1	250.68	79.37	330.05	154.05	88%
17068001	7632	LEVIS RD	65,400	320.00	98.00	418.00	1	250.68	255.71	506.39	88.39	21%
17041001	7633	LEVIS RD	17,100	261.00		261.00	1	250.68	66.86	317.54	56.54	22%
17071007	7634	LEVIS RD	35,600	208.00	12.00	220.00	1	250.68	139.20	389.88	169.88	77%
17044007	7635	LEVIS RD	50,500	261.00	62.00	323.00	1	250.68	197.46	448.14	125.14	39%
17074004	7636	LEVIS RD	71,500	208.00	274.00	482.00	1	250.68	279.57	530.25	48.25	10%
17047004	7637	LEVIS RD	74,200	261.00	235.00	496.00	1	250.68	290.12	540.80	44.80	9%
17077001	7638	LEVIS RD	37,600	213.00	19.00	232.00	1	250.68	147.02	397.70	165.70	71%
17050001	7639	LEVIS RD	32,700	176.00	27.00	203.00	1	250.68	127.86	378.54	175.54	86%
17080007	7640	LEVIS RD	32,000	176.00	22.00	198.00	1	250.68	125.12	375.80	177.80	90%
17053007	7641	LEVIS RD	24,100	192.00		192.00	1	250.68	94.23	344.91	152.91	80%
17083004	7642	LEVIS RD	59,800	176.00	225.00	401.00	1	250.68	233.82	484.50	83.50	21%
17056004	7643	LEVIS RD	15,500	261.00		261.00	1	250.68	60.61	311.29	50.29	19%
17086001	7644	LEVIS RD	43,500	416.00		416.00	1	250.68	170.09	420.77	4.76	1%
17059001	7645	LEVIS RD	39,500	400.00		400.00	1	250.68	154.45	405.13	5.13	1%

**Comparison of Current Vs. Projected Charges for Random Residential Customers  
Rate Scenario 2**

Parcel	House Number	Street Name	Annual Usage	Sewer Rent	Sewer Excess	Total Charged	2015	\$250.68	\$3.91	Total Charged	Difference	%
							Units	Service Charge	Usage Charge			
22891019	403	RICES MILL RD	53,500	640.00		640.00	1	250.68	209.19	459.87	-180.14	-28%
23044001	436	RICES MILL RD	163,500	459.00	646.00	1,105.00	1	250.68	639.29	889.97	-215.04	-19%
23059004	1222	RICES MILL RD	2,400	331.00		331.00	1	250.68	9.38	260.06	-70.94	-21%
22945001	102	RICESMILL RD	77,800	139.00	400.00	539.00	1	250.68	304.20	554.88	15.88	3%
22948007	104	RICESMILL RD	48,100	213.00	96.00	309.00	1	250.68	188.07	438.75	129.75	42%
22954001	110	RICESMILL RD	91,600	389.00	209.00	598.00	1	250.68	358.16	608.84	10.84	2%
22840007	111	RICESMILL RD	86,600	309.00	267.00	576.00	1	250.68	338.61	589.29	13.29	2%
22957007	112	RICESMILL RD	29,200	261.00		261.00	1	250.68	114.17	364.85	103.85	40%
22960004	116	RICESMILL RD	32,600	299.00		299.00	1	250.68	127.47	378.15	79.15	26%
22843004	117	RICESMILL RD	44,500	261.00	18.00	279.00	1	250.68	174.00	424.68	145.68	52%
22846001	119	RICESMILL RD	28,000	229.00		229.00	1	250.68	109.48	360.16	131.16	57%
22966007	120	RICESMILL RD	57,800	299.00	64.00	363.00	1	250.68	226.00	476.68	113.68	31%
22849007	123	RICESMILL RD	60,000	267.00	124.00	391.00	1	250.68	234.60	485.28	94.28	24%
22855001	127	RICESMILL RD	23,900	139.00	7.00	146.00	1	250.68	93.45	344.13	198.13	136%
22969004	134	RICESMILL RD	35,900	379.00		379.00	1	250.68	140.37	391.05	12.05	3%
22858007	201	RICESMILL RD	76,400	507.00		507.00	1	250.68	298.72	549.40	42.40	8%
22861004	213	RICESMILL RD	81,200	293.00	242.00	535.00	1	250.68	317.49	568.17	33.17	6%
22864001	219	RICESMILL RD	60,300	117.00	301.00	418.00	1	250.68	235.77	486.45	68.45	16%
23005004	220	RICESMILL RD	34,700	432.00		432.00	1	250.68	135.68	386.36	-45.64	-11%
22867007	223	RICESMILL RD	27,600	128.00	48.00	176.00	1	250.68	107.92	358.60	182.60	104%
22972001	228	RICESMILL RD	94,500	485.00	113.00	598.00	1	250.68	369.50	620.18	22.18	4%
22975007	236	RICESMILL RD	59,200	288.00	89.00	377.00	1	250.68	231.47	482.15	105.15	28%
22978004	240	RICESMILL RD	86,600	272.00	311.00	583.00	1	250.68	338.61	589.29	6.29	1%
22981001	300	RICESMILL RD	48,800	432.00		432.00	1	250.68	190.81	441.49	9.49	2%
22984007	304	RICESMILL RD	75,600	416.00	55.00	471.00	1	250.68	295.60	546.28	75.28	16%
22870202	311	RICESMILL RD	76,400	448.00	25.00	473.00	1	250.68	298.72	549.40	76.40	16%
22987004	312	RICESMILL RD	36,800	229.00		229.00	1	250.68	143.89	394.57	165.57	72%
22870301	313	RICESMILL RD	148,400	598.00	375.00	973.00	1	250.68	580.24	830.92	-142.08	-15%
22990001	314	RICESMILL RD	95,300	405.00	214.00	619.00	1	250.68	372.62	623.30	4.30	1%
22871003	315	RICESMILL RD	45,700	293.00		293.00	1	250.68	178.69	429.37	136.37	47%
22993007	316	RICESMILL RD	67,700	288.00	151.00	439.00	1	250.68	264.71	515.39	76.39	17%
22996004	318	RICESMILL RD	101,100	256.00	431.00	687.00	1	250.68	395.30	645.98	-41.02	-6%
22873001	323	RICESMILL RD	68,300	315.00	126.00	441.00	1	250.68	267.05	517.73	76.73	17%
22999001	324	RICESMILL RD	28,600	507.00		507.00	1	250.68	111.83	362.51	-144.49	-28%
22876007	325	RICESMILL RD	51,200	208.00	126.00	334.00	1	250.68	200.19	450.87	116.87	35%
22879004	327	RICESMILL RD	82,800	261.00	298.00	559.00	1	250.68	323.75	574.43	15.43	3%
22882001	329	RICESMILL RD	105,400	352.00	353.00	705.00	1	250.68	412.11	662.79	-42.21	-6%
22885007	331	RICESMILL RD	13,300	347.00		347.00	1	250.68	52.00	302.68	-44.32	-13%
23002007	332	RICESMILL RD	77,200	592.00		592.00	1	250.68	301.85	552.53	-39.47	-7%
23008001	336	RICESMILL RD	24,700	261.00		261.00	1	250.68	96.58	347.26	86.26	33%



**Comparison of Current Vs. Projected Charges for Random Residential Customers  
Rate Scenario 2**

Parcel	House Number	Street Name	Annual Usage	Sewer Rent	Sewer Excess	Total Charged	2015	\$250.68	\$3.91	Total Charged	Difference	%
							Units	Service Charge	Usage Charge			
23011007	340	RICESMILL RD	47,500	363.00		363.00	1	250.68	185.73	436.41	73.41	20%
23014004	344	RICESMILL RD	37,500	405.00		405.00	1	250.68	146.63	397.31	-7.69	-2%
23017001	348	RICESMILL RD	87,200	379.00	184.00	563.00	1	250.68	340.95	591.63	28.63	5%
23020007	352	RICESMILL RD	7,200	459.00		459.00	1	250.68	28.15	278.83	-180.17	-39%
23023004	400	RICESMILL RD	13,000	416.00		416.00	1	250.68	50.83	301.51	-114.49	-28%
23029007	404	RICESMILL RD	87,400	267.00	324.00	591.00	1	250.68	341.73	592.41	1.41	0%
22891001	405	RICESMILL RD	48,500	512.00		512.00	1	250.68	189.64	440.32	-71.68	-14%
22894007	407	RICESMILL RD	65,600	411.00		411.00	1	250.68	256.50	507.18	96.18	23%
23026001	408	RICESMILL RD	5,900	443.00		443.00	1	250.68	23.07	273.75	-169.25	-38%
22897004	411	RICESMILL RD	150,800	405.00	619.00	1,024.00	1	250.68	589.63	840.31	-183.69	-18%
23032004	412	RICESMILL RD	115,400	405.00	361.00	766.00	1	250.68	451.21	701.89	-64.11	-8%
23035001	416	RICESMILL RD	55,500	379.00		379.00	1	250.68	217.01	467.69	88.69	23%
22903007	419	RICESMILL RD	42,700	165.00	115.00	280.00	1	250.68	166.96	417.64	137.64	49%
22906004	431	RICESMILL RD	64,200	432.00		432.00	1	250.68	251.02	501.70	69.70	16%
22912007	437	RICESMILL RD	50,200	518.00		518.00	1	250.68	196.28	446.96	-71.04	-14%
22909001	443	RICESMILL RD	63,600	379.00	12.00	391.00	1	250.68	248.68	499.36	108.36	28%
22915004	445	RICESMILL RD	100,100	432.00	220.00	652.00	1	250.68	391.39	642.07	-9.93	-2%
22918001	451	RICESMILL RD	61,300	432.00		432.00	1	250.68	239.68	490.36	58.36	14%
22921007	457	RICESMILL RD	67,400	443.00		443.00	1	250.68	263.53	514.21	71.21	16%
22924004	463	RICESMILL RD	20,400	395.00		395.00	1	250.68	79.76	330.44	-64.56	-16%
22927001	469	RICESMILL RD	17,300	443.00		443.00	1	250.68	67.64	318.32	-124.68	-28%
22930007	475	RICESMILL RD	43,500	379.00		379.00	1	250.68	170.09	420.77	41.77	11%
22933004	1113	RICESMILL RD	27,000	176.00		176.00	1	250.68	105.57	356.25	180.25	102%
22936001	1117	RICESMILL RD	13,300	192.00		192.00	1	250.68	52.00	302.68	110.68	58%
22939007	1121	RICESMILL RD	30,500	213.00		213.00	1	250.68	119.26	369.94	156.94	74%
23047007	1200	RICESMILL RD	46,700	464.00		464.00	1	250.68	182.60	433.28	-30.72	-7%
23050004	1204	RICESMILL RD	82,600	176.00	391.00	567.00	1	250.68	322.97	573.65	6.65	1%
23062001	1208	RICESMILL RD	66,300	341.00	82.00	423.00	1	250.68	259.23	509.91	86.91	21%
23056007	1218	RICESMILL RD	64,300	245.00	177.00	422.00	1	250.68	251.41	502.09	80.09	19%
23053001	1228	RICESMILL RD	87,600	315.00	267.00	582.00	1	250.68	342.52	593.20	11.20	2%

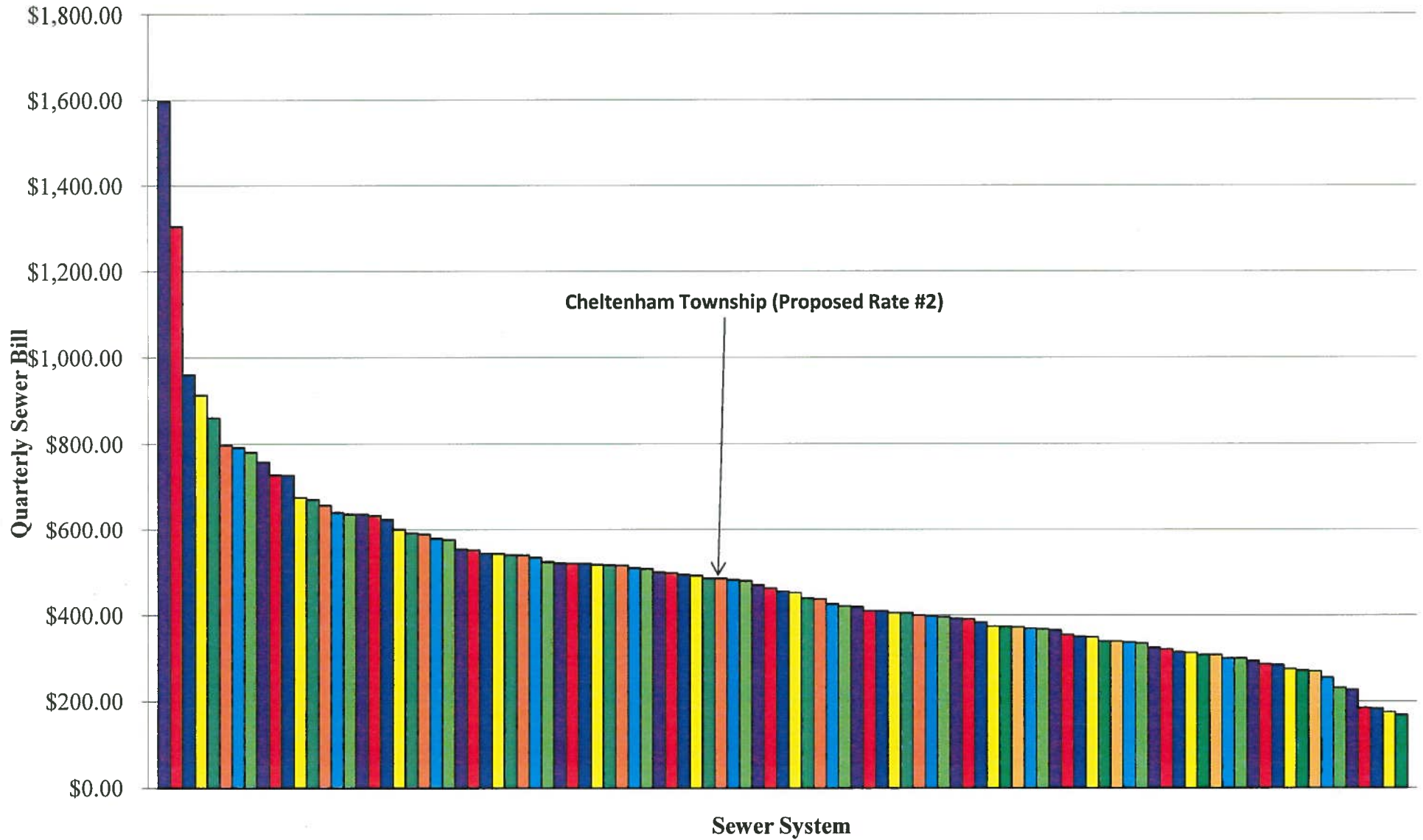
**Comparison of Current Vs. Projected Charges for Random Commercial Customers**

**Rate Scenario 2**

Parcel	Name	House Number	Street Name	Annual Usage	Sewer Rent	Sewer Excess	Total Charged	2015	\$250.68	\$3.91	Total Charged	Difference	%
								Units	Service Charge	Usage Charge			
17347109	East Cedarbrook Plaza	3001	CHELTENHAM AVE	1,840,500	9,203.00	2,515.00	11,718.00	22	5,514.96	7,196.36	12,711.32	993.32	8%
8701007	Laundramat	269	SEASTON RD	2,261,000	10,937.00	4,465.00	15,402.00	28	7,019.04	8,840.51	15,859.55	457.55	3%
5338004	101 Cheltenham	101	WCHELTENHAM AVE	97,000	6,402.00		6,402.00	1	250.68	379.27	629.95	-5,772.05	-90%
78787878	1600 Church	1600	CHURCH RD	5,485,800	47,784.00		47,784.00	167	41,863.56	21,449.48	63,313.04	15,529.04	32%
27589001	Lynnewood Gardens	2047	MATHER WAY A	294,900	320,484.00	252,495.00	572,979.00	1,798	450,722.64	1,153.06	451,875.70	-121,103.30	-21%
27724001	Wyncote House	25	WASHINGTON LN	10,519,900	66,736.00		66,736.00	304	76,206.72	41,132.81	117,339.53	50,603.53	76%
30005681	Elkins Park House	7900	OLD YORK RD	11,306,600	51,701.00		51,701.00	264	66,179.52	44,208.81	110,388.33	58,687.33	114%
3268004	Hillbrook	651	BROOKE RD C	879,000	16,677.00		16,677.00	25	6,267.00	3,436.89	9,703.89	-6,973.11	-42%
8857004	Oak Summit	310	SEASTON RD	9,948,900	73,724.00		73,724.00	225	56,403.00	38,900.20	95,303.20	21,579.20	29%

# Comparison of Annual Sewer Bills of Residential Customers

(Using 60,000 Gallons Per Year)



**Comparison of Annual Sewer Bills  
For Residential Customers  
60,000 Gallons Per Year**

Rank & Color	Sewer System	Annual Sewer Bill
1	Manheim Borough Authority (Rapho Township)	\$1,596.24
2	Manheim Borough Authority	\$1,304.28
3	Yardley Borough Sewer Authority	\$960.00
4	Hilltown Township Water & Sewer Authority (District 5)	\$912.60
5	Upper Pottsgrove Township	\$860.00
6	Lehigh County Authority (Washington Township)	\$796.00
7	Bedminster Municipal Authority 2012	\$791.20
8	Chadds Ford Township Sewer Authority	\$780.00
9	North Wales Borough	\$757.36
10	Northampton Bucks County Municipal Authority (Sewer District 2)	\$727.03
11	East Cocalico Township Authority	\$726.00
12	Upper Hanover Authority	\$675.00
13	Terre Hill Borough	\$670.00
14	Lehigh County Authority (Heidelberg Heights/Sand Springs/Wynnewood Terrace)	\$655.80
15	Slatington Borough Sewer Authority	\$639.12
16	Lehigh County Authority (Lynn Township)	\$635.92
17	Royersford, Borough of	\$635.23
18	Northampton Bucks County Municipal Authority (Sewer Districts 1 and 3)	\$632.20
19	Perkasie Regional Authority	\$623.40
20	Denver Borough	\$600.00
21	Reading Area Water Authority	\$591.00
22	Palmerton Borough	\$588.00
23	Penn del Borough	\$577.72
24	Bucks County Water & Sewer Authority	\$575.16
25	City of Easton	\$553.40
26	Schwenksville Borough Authority	\$552.00
27	Borough of Kennett Square	\$544.24
28	Adamstown Borough	\$543.60
29	Warrington Township - District III	\$540.64
30	Township of Abington	\$539.60
31	Hilltown Township Water & Sewer Authority (District 4)	\$534.60
32	Limerick Township Sewer Department	\$523.97
33	Montgomery Township Municipal Sewer Authority	\$520.76
34	Lower Pottsgrove Township Authority	\$520.00
35	North Coventry Municipal Authority	\$520.00
36	Upper Montgomery Joint Authority	\$517.52

**Comparison of Annual Sewer Bills  
For Residential Customers  
60,000 Gallons Per Year**

Rank & Color	Sewer System	Annual Sewer Bill
37	Lower Salford Township Authority	\$516.00
38	Pottstown Borough Authority	\$515.93
39	Buckingham Township	\$509.60
40	Warrington Township - District IV	\$507.80
41	Berks-Montgomery Municipal Authority	\$500.00
42	Horsham Water & Sewer Authority	\$498.08
43	Borough of Jenkintown	\$494.00
44	Upper Makefield Township	\$492.00
45	Borough of Lititz	\$485.73
46	<b>Cheltenham Township (Proposed Rate #2)</b>	<b>\$485.28</b>
47	Strasburg Borough	\$482.12
48	Upper Leacock Township	\$480.00
49	East Norriton Township	\$470.36
50	Township of Falls Authority	\$462.80
51	Borough Of Sinking Spring	\$456.00
52	Borough of Conshohocken Authority	\$452.20
53	Upper Saucon Township	\$440.00
54	Warwick Township Water & Sewer Authority (Bucks County)	\$437.56
55	West Norriton Township	\$426.44
56	Lower Makefield Township Sanitary Authority	\$421.60
57	Quarryville Borough	\$420.00
58	Mount Joy Borough	\$410.64
59	Borough of Catasauqua	\$410.00
60	Hilltown Township Water & Sewer Authority (District 1)	\$405.80
61	Hilltown Township Water & Sewer Authority (District 3)	\$405.80
62	Suburban Lancaster Sewer Authority	\$400.00
63	Newtown Bucks County Joint Municipal Authority	\$398.00
64	Lower Southampton - Municipal Services Advisory Board	\$396.00
65	Telford Borough Authority	\$393.00
66	Warminster Municipal Authority	\$391.40
67	Bristol Township Water & Sewer Department	\$384.52
68	Chalfont-New Britain Township Joint Sewage Authority	\$374.40
69	Warrington Township - District V	\$374.40
70	Upper Moreland-Hatboro Joint Authority	\$372.60
71	New Holland Borough	\$370.00
72	Ephrata Borough (Outside Borough Limits)	\$368.60

**Comparison of Annual Sewer Bills  
For Residential Customers  
60,000 Gallons Per Year**

Rank & Color	Sewer System	Annual Sewer Bill
73	Warrington Township - District I & II	\$366.00
74	Lehigh County Authority (Upper Milford Twp/Weisenberg Twp)	\$355.80
75	Norristown Municipal Waste Authority	\$350.70
76	Bucks County Water & Sewer Authority - Upper Dublin Township	\$349.56
77	Whitpain Township	\$340.00
78	Bucks County Water & Sewer Authority - Langhorne Borough	\$339.36
79	Lancaster Area Sewer Authority	\$337.80
80	Wernersville Municipal Authority	\$335.34
81	Hatfield Township Municipal Authority (Towamencin Separate Sewer District)	\$325.00
82	Collegeville-Trappe Municipal Authority	\$321.00
83	Upper Southampton Municipal Authority	\$314.40
84	Lower Bucks County Joint Municipal Authority	\$313.00
85	Lower Providence Township Sewer Authority	\$308.00
86	Warwick Township Municipal Authority (Lancaster County)	\$308.00
87	City of Lancaster (Inside City)	\$300.00
88	Valley Forge Sewer Authority	\$300.00
89	Ephrata Borough (Inside Borough Limits)	\$294.04
90	Philadelphia Water Department	\$286.40
91	Morrisville Municipal Authority	\$285.00
92	Whitemarsh Township (District #1)	\$275.00
93	Hatfield Township Municipal Authority	\$272.00
94	Springfield Township (Montgomery County)	\$269.76
95	Springfield Township (Delaware County)	\$255.00
96	Plymouth Township	\$232.88
97	City of Bethlehem	\$227.48
98	Hilltown Township Water & Sewer Authority (District 2)	\$185.40
99	West Pottsgrove Township	\$184.00
100	City of Lancaster (Outside City)	\$175.50
101	Lehigh County Authority (Allentown Division)	\$169.26
	Average	\$484.20

# RECOMMENDATIONS

- Recommend that the Township adopted Rate Scenario No. 2 – Annual Service Charge of \$250.68 per EDU and a Usage Charge of \$3.91 per 1,000 gallon for all usage
- Implement new charges for 2015

# Conclusions

- A revised sewer rate structure would promote equity between customers
- Insure that the sewer system revenues cover all sewer costs of operations and capital